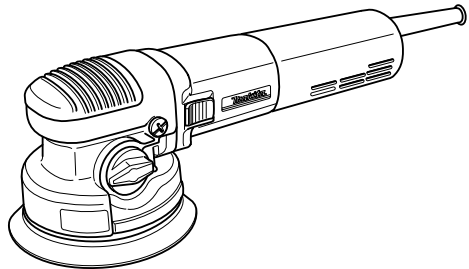




# Random Orbit Sander

MODEL BO6040



003278



## I N S T R U C T I O N M A N U A L

**⚠ WARNING:**

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

[www.makitatools.com](http://www.makitatools.com)

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# SPECIFICATIONS

Model	BO6040
Pad size	150 mm (6")
Orbits per minute	1,600 - 5,800
Overall length	316 mm (12 - 1/2")
Net weight	2.7 kg (5.9 lbs)

- Manufacturer reserves the right to change specifications without notice.
- Specifications may differ from country to country.

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# GENERAL SAFETY RULES

USA002-2

(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.

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# 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. Ordinary eye or sun glasses are NOT eye protection.

### 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.

**USE PROPER EXTENSION CORD:** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

**Table 1: Minimum gage for cord**

Ampere Rating		Volts	Total length of cord in feet			
		120 V	25 ft.	50 ft.	100 ft.	150 ft.
More Than	Not More Than	AWG				
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	Not Recommended	

## SPECIFIC SAFETY RULES

USB040-4

**DO NOT let comfort or familiarity with product (gained from repeated use) replace strict adherence to sander safety rules. If you use this tool unsafely or incorrectly, you can suffer serious personal injury.**

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. Always use safety glasses or goggles. Ordinary eye or sun glasses are NOT safety glasses.
3. Hold the tool firmly.
4. Do not leave the tool running. Operate the tool only when hand-held.
5. This tool has not been waterproofed, so do not use water on the workpiece surface.
6. Ventilate your work area adequately when you perform sanding operations.
7. Use of this tool to sand some products, paints and wood could expose user to dust containing hazardous substances. Use appropriate respiratory protection.

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# SAVE THESE INSTRUCTIONS

**⚠ WARNING:**  
**MISUSE** or failure to follow the safety rules stated in this instruction manual may cause serious personal injury.

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## SYMBOLS


USD205-1

The followings show the symbols used for tool.

**V** ..... volts

**A** ..... amperes

**Hz** ..... hertz

 .....alternating current

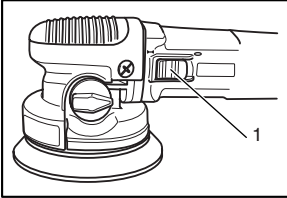
$n_0$  .....no load speed

 .....Class II Construction

**.../min**..... orbits per minute

# FUNCTIONAL DESCRIPTION

003287



1. Slide switch

**⚠ CAUTION:**

- Always be sure that the tool is switched off and unplugged before adjusting or checking function on the tool.

## Switch action

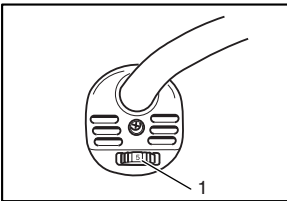
**⚠ CAUTION:**

- Before plugging in the tool, always check to see that the slide switch actuates properly and returns to the “OFF” position when the rear of the slide switch is depressed.
- Switch can be locked in “ON” position for ease of operator comfort during extended use. Apply caution when locking tool in “ON” position and maintain firm grasp on tool.

To start the tool, slide the slide switch toward the “I (ON)” position. For continuous operation, press the front of the slide switch to lock it.

To stop the tool, press the rear of the slide switch, then slide it toward the “O (OFF)” position.

003289



1. Speed adjusting dial

## 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 for the relationship between the number settings on the dial and the approximate rotating speed.

003290

Number	Orbits per min.	Roto-orbit pad rotating speed per min.
1	1,600	180
2	2,100	240
3	3,600	420
4	5,100	590
5	5,800	670

**⚠ CAUTION:**

- If the tool is operated continuously at low speeds for a long time, the motor will get overloaded, resulting in tool malfunction.

- 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.

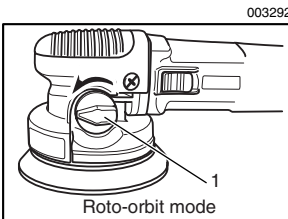
The tools equipped with electronic function are easy to operate because of the following features.

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

### Selecting the action mode

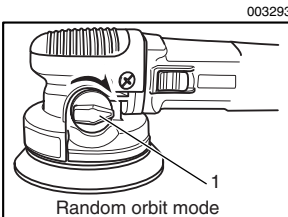
Use the change lever to change the rotation mode.

Roto-orbit mode is orbital action plus rotation action of pad for rough sanding and polishing.



1. Change lever

Random orbit mode is orbital action of pad for fine sanding.



1. Change lever

Rotate the change lever counterclockwise for roto-orbit mode and clockwise for random orbit mode.

#### ⚠ CAUTION:

- Do not rotate the change lever when the tool is running. The tool will be damaged.

## Typical applications for sanding and polishing

003294

### Sanding

Use / Material	Mode selection	Speed control setting	Pad
Paintwork: Sanding Repairs (scratches, rust spots) Rough paint stripping	Random Roto-orbit/Random Roto-orbit	1 - 3 2 - 3 4 - 5	Soft Hard Soft
Plastics: Soft plastics (PVC/ABS) Hard plastics (FRP)	Roto-orbit/Random Roto-orbit	1 - 3 1 - 3	Super soft/Soft Soft/Hard
Woods: Softwood Hardwood Veneers	Random Roto-orbit/Random Random	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)	Roto-orbit/Random Roto-orbit Roto-orbit Roto-orbit	1 - 3 3 - 5 4 - 5 4 - 5	Soft Soft/Hard Super soft Soft

### Polishing

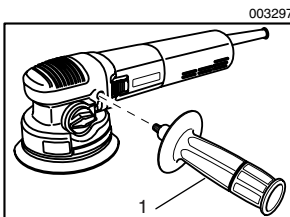
Use / Material	Mode selection	Speed control setting	Pad
Applying wax Removing wax Polishing	Roto-orbit Roto-orbit Roto-orbit	2 - 4 4 - 5 4 - 5	Sponge pad Felt pad Wool pad

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

## ASSEMBLY

### ⚠ CAUTION:

- Always be sure that the tool is switched off and unplugged before carrying out any work on the tool.



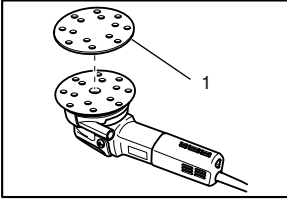
1. Side grip

### 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.



003302



1. Abrasive disc

## Installing or removing abrasive disc

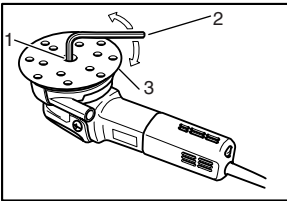
### ⚠ CAUTION:

- 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.

003315

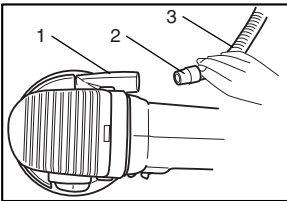


1. Screw
2. Hex wrench
3. Pad

## 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 securely.

003326

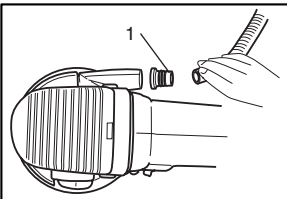


1. Dust outlet
2. Cuff
3. Hose

## Dust collection (optional accessory)

If a Makita hose is used, you can connect the cuff to the dust outlet directly.

003329

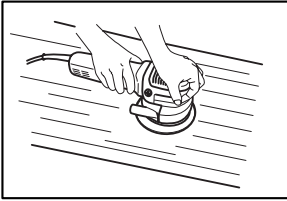


1. Joint

If other hose with an inner diameter of 24 mm (15/16"), attach the joint between the dust outlet and the cuff.

# OPERATION

003338



## Sanding operation

### ⚠ CAUTION:

- Never switch on the tool when it is in contact with the workpiece, it may cause 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.

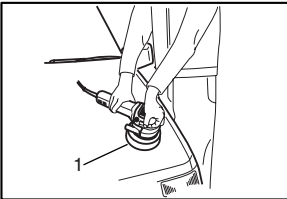
Hold the tool firmly. Turn the tool on and wait until it attains full speed. Then gently place the tool on the workpiece surface. Keep the pad flush with the workpiece and apply slight pressure on the tool.

## 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 damage/burning.
- Never force the tool. Excessive pressure may decrease the polishing efficiency and cause motor overload, resulting in tool malfunction.

003340



1. Sponge pad

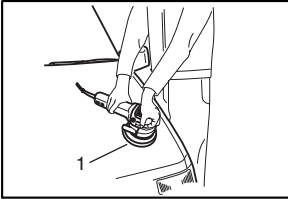
## Applying wax

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

### NOTE:

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

003342

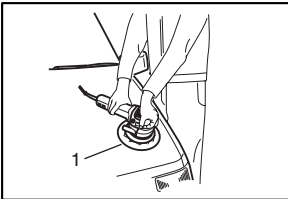


1. Felt pad

### Removing wax

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

003344



1. Wool pad

### Polishing

Use an optional wool pad. Run the tool 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 product SAFETY and RELIABILITY, repairs, carbon brush inspection and replacement, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

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## 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. Only use accessory or attachment for its stated purpose.

If you need any assistance for more details regarding these accessories, ask your local Makita service center.

- Hook-and-loop type abrasive discs (with pre-punched holes)
- Sanding cloth 150
- Pad 150 (Super soft, Soft, Hard))
- Hook-and-loop type sponge pad
- Hook-and-loop type wool pad
- Hook-and-loop type felt pad
- Side grip
- Joint
- Hex wrench

Cut



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Required

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not deliver  
without proper  
postage.

**Makita U.S.A., Inc.**  
14930 Northam Street  
La Mirada, CA 90638-5753



Fold

# MAIL THIS PORTION

Your answers to the following questions are appreciated.

**1. This product was purchased from:**

- Home Center       Other (            )
- Hardware/Lumber Store
- Tool Distributor
- Industrial Supply
- Construction Supply

**3. How did you learn about this product:**

- Magazine       Radio
- From Dealer       Exhibition
- Newspaper       From Friend
- Store Display       Previous Usage
- Catalog       Other (            )

**2. Use of the product is intended for:**

- Construction Trade
- Industrial Maintenance
- Home Maintenance
- Hobby
- Other (            )

**4. Most favored points are:**

- Design       Repair Service
- Features       Durability
- Size       Power
- Price       Other (            )
- Makita Brand

**5. Any comments:**

---

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DATE PURCHASED			MONTH		DAY		YEAR		MODEL NO.				
									SERIAL NO.				
INTL.			LAST NAME / COMPANY NAME						STATUS Married Single		SEX M F		
STREET ADDRESS													
CITY													
STATE		ZIP CODE				PHONE			AREA CODE				
AGE:		<input type="checkbox"/> Under 19		<input type="checkbox"/> 20-29		<input type="checkbox"/> 30-39		<input type="checkbox"/> 40-49		<input type="checkbox"/> 50-60		<input type="checkbox"/> Over 60	

BE SURE TO COMPLETE THE CUSTOMER'S PORTION OF THIS FORM AND RETAIN FOR YOUR RECORDS.

Please return this portion by facsimile or mail.

Facsimile No: (714) 522-8133

# FACTORY SERVICE CENTERS

1-800-4-MAKITA

RETAIN THIS PORTION FOR YOUR RECORDS

## ARIZONA

3707 E. Broadway Rd., Ste. 6  
Phoenix, AZ 85040  
(602) 437-2850

## CALIFORNIA

41850 Christy St.  
Fremont, CA 94538-5107  
(510) 657-9881

14930 Northam St.  
La Mirada, CA 90638-5753  
(714) 522-8088

1970 Fulton Avenue  
Sacramento, CA 95825  
(916) 482-5197

7674 Clairemont Mesa Blvd.  
San Diego, CA 92111  
(858) 278-4471

16735 Saticoy St., Ste. 105  
Van Nuys, CA 91406  
(818) 782-2440

## COLORADO

11839 E. 51st Ave.  
Denver, CO 80239-2709  
(303) 371-2850

## FLORIDA

750 East Sample Road  
Pompano Beach, FL 33064  
(954) 781-6333

## GEORGIA

4680 River Green Parkway NW  
Duluth, GA 30096  
(770) 476-8911

## ILLINOIS

1450 Feehanville Dr.  
Mt. Prospect, IL 60056-6011  
(847) 297-3100

## MARYLAND

7397 Washington Boulevard,  
Suite 104 Elkridge, MD 21075  
(410) 476-4401

## MASSACHUSETTS

232 Providence Hwy.  
Westwood, MA 02090  
(781) 461-9754

## MINNESOTA

6427 Penn Ave. South  
Richfield, MN 55423  
(612) 869-5199

## MISSOURI

9876 Watson Road  
St. Louis, MO 63126-2221  
(314) 909-9889

## NEBRASKA

4129 S. 84th St.  
Omaha, NE 68127  
(402) 597-2925

## NEVADA

3375 S. Decatur Blvd.  
Suites. 22 - 24  
Las Vegas, NV 89102  
(702) 368-4277

## NEW JERSEY

251 Herrod Blvd.  
Dayton, NJ 08810-1539  
(609) 655-1212

## NEW YORK

4917 Genessee Street  
Cheektowaga, NY 14225  
(716) 685-9503

## OREGON

828 19th Avenue, N.W.  
Portland, OR 97209  
(503) 222-1823

## PENNSYLVANIA

1704 Babcock Blvd.  
Pittsburgh, PA 15209  
(412) 822-7370

## PUERTO RICO

200 Guayama St.  
Hato Rey, PR 00917  
(787) 250-8776

## TENNESSEE

1120 Elm Hill P.  
Suite 170 Nashville, TN 372  
(615) 248-3321

## TEXAS

12801 Stemmons Fwy Ste. 809  
Farmers Branch, TX 75234  
(972) 243-1150

12701 Directors Dr.  
Stafford, TX 77477-3701  
(281) 565-8665

3453 IH-35 North, Ste. 101  
San Antonio, TX 78219  
(210) 228-0676

## WISCONSIN

Lincoln Plaza Shopping Ctr.  
2245 S. 108th St. West Allis, WI  
53227  
(414) 541-4776

## CUSTOMER'S RECORD

<p><b>When you need service:</b> Send complete tool (prepaid) to one of the Makita Factory Service Centers listed, or to an Authorized Makita Service Center. Be sure to attach a letter to the outside of the carton detailing the problem with your tool.</p>	Date Purchased
	Dealer's Name & Address
	Model No.
	Serial No.

# 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.

**Makita Corporation**  
3-11-8, Sumiyoshi-cho,  
Anjo, Aichi 446-8502 Japan