

# BENCHMARK<sup>TM</sup> MC

## 20V MAX OSCILLATING MULTI-TOOL KIT



5 Year Limited Warranty on tool  
Battery and charger sold separately



Intertek  
3042597  
JD512220

**READ ALL INSTRUCTIONS BEFORE FIRST USE.  
KEEP THIS MANUAL FOR FUTURE REFERENCE.  
KEEP AWAY FROM CHILDREN.**

Maximum initial battery voltage (measured without a load)  
is 20 volts. Nominal voltage is 18 volts.



**WEAR CSA APPROVED  
EYE PROTECTION**



**WEAR EAR  
PROTECTION**



**WEAR A  
FACE MASK**

## PRODUCT SPECIFICATIONS

<b>BENCHMARK 20V MAX OSCILLATING MULTI-TOOL KIT</b>	
Voltage	20 V
Variable speed	8,000–18,000 OPM (no load)
Oscillating angle	3.2°
Batteries (Sold separately)	5350-023 (2.5Ah), 5350-011 (4Ah), 5350-012 (5Ah)
Charger (Sold separately)	5350-010 2.4Amp 5350-022 6A Fast Charger
Weight	1.9 lb (0.88 kg)

### NEED ASSISTANCE?

Call us on our toll-free customer support line:  
1-866-349-8665 (Monday through Friday 9am – 5pm Eastern Standard Time)

- Technical questions
- Replacement parts
- Parts missing from package

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## GENERAL SAFETY WARNINGS

### CAUTION:

Before using this tool or any of its accessories, read this manual and follow all Safety Rules and Operating Instructions.

### EYE, EAR & LUNG PROTECTION

SYMBOL	MEANING
 <b>DANGER</b>  	<p><b>ALWAYS WEAR EYE PROTECTION THAT CONFORMS WITH CSA Z94.3 or ANSI SAFETY STANDARD Z87.1</b></p> <p>FLYING DEBRIS can cause permanent eye damage. Prescription eyeglasses ARE NOT a replacement for proper eye protection.</p> <p><b>Non-compliant eyewear can cause serious injury if broken during the operation of a power tool.</b></p>
 <b>WARNING</b> 	<p>Use hearing protection, particularly during extended periods of operation of the tool, or if the operation is noisy.</p>
 <b>WARNING</b> 	<p><b>WEAR A DUST MASK THAT IS DESIGNED TO BE USED WHEN OPERATING A POWER TOOL IN A DUSTY ENVIRONMENT.</b></p> <p>Dust that is created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals that are known to cause cancer, birth defects, or other genetic abnormalities. These chemicals include:</p> <ul style="list-style-type: none"> <li>• Lead from lead-based paints</li> <li>• Crystalline silica from bricks, cement, and other masonry products</li> <li>• Arsenic and chromium from chemically treated lumber.</li> </ul> <p>The level of risk from exposure to these chemicals varies, according to how often this type of work is performed. In order to reduce exposure to these chemicals, work in a well-ventilated area, and use approved safety equipment, such as a dust mask that is specifically designed to filter out microscopic particles.</p>
 <b>WARNING</b> 	<p><b>To avoid electrical hazards, fire hazards or damage to the tool, use proper circuit protection.</b></p> <p>This tool is wired at the factory for 120 Volts AC operation. It must be connected to a 120 Volts AC, 15 Amps circuit that is protected by a time-delayed fuse or circuit breaker. To avoid shock or fire, replace power cord immediately if it is worn, cut or damaged in any way.</p>

### WARNING:

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

### 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 bystanders, children, and visitors away while operating the tool. Distractions can cause you to lose control.

## **ELECTRICAL SAFETY**

Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will only fit into a polarized plug one way.

If the plug does not fit into the outlet properly, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not alter the plug in any way. Double insulation eliminates the need for the three-pronged grounded power cord and grounded power supply system.

Avoid contact between the operator's body and grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if the operator's body is grounded.

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

Do not abuse the cord. Do not use the power cord to carry the tool or to pull the plug out of the outlet. Keep the power cord away from heat, oil, sharp edges, and moving parts. Replace a damaged power cord immediately. A damaged power cord increases the risk of electric shock.

When operating a power tool outdoors, use an outdoor-rated extension cord type "W-A" or "W". These cords are rated for outdoor use and they reduce the risk of electric shock.

## **PERSONAL SAFETY**

Stay alert, be aware of the surroundings, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating a power tool may result in serious personal injury.

Dress properly. Do not wear loose clothing or jewellery.

Contain long hair. Keep hair, clothing, and gloves away from moving parts. Loose clothing, jewellery, or long hair can get caught in moving parts.

Avoid accidental start-ups. Verify that the switch is in the OFF position before plugging in the tool. Carrying a power tool with a finger on the switch or plugging in a tool that has the switch in the ON position invites accidents.

Remove adjusting keys and wrenches before turning the tool ON. A wrench or key that is left attached to a rotating part of the tool may result in personal injury.

Do not overreach. Keep proper footing and balance at all times. Proper footing and balance allows the operator to maintain better control of the tool in unexpected situations.

Use safety equipment. Always wear eye protection.

Use a dust mask, non-skid safety shoes, a hardhat, or hearing protection when appropriate.

## USE AND CARE OF POWER TOOLS

Use clamps or another practical means to secure and support the workpiece to a stable platform. Holding the work in a hand or against the body is not stable and may lead to loss of control.

Do not force the tool. Use the correct tool for the application. The correct tool will do the job better and safer when used at the rate that it was designed to work at.

Do not use a power tool if it cannot be turned ON or OFF using the power switch. A tool that cannot be controlled using the switch is dangerous and must be repaired.

Disconnect the plug from the outlet before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of accidental start-ups.

When power tools are not in use, store them out of the reach of children or untrained persons. Tools are dangerous in the hands of untrained users.

Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

Inspect the tool for misalignment or binding of moving parts, broken parts, and any other condition that may affect the operation of the tool. If it is damaged, have the tool serviced before using it. Many accidents are caused by poorly maintained tools.

Use only accessories that are recommended by the manufacturer for this model. Accessories that are suitable for one tool may become hazardous when used with another tool.

## SERVICE

Tools servicing must be performed by qualified personnel. Service or maintenance performed by non-qualified personnel could result in a risk of injury.

When servicing a tool, use only identical replacement parts. Follow the instructions in the Maintenance section of this Manual. The use of unauthorized parts or failure to follow the instructions in the Maintenance section of this Manual may create a risk of electric shock or injury.

## SPECIFIC SAFETY RULES

### **WARNING:**

**Know your oscillating tool. Do not plug in the charger or install the battery in the tool until you have read and understand this Instruction Manual. Learn the tool's applications and limitations, as well as the specific potential hazards related to this tool.** Following this rule will reduce the risk of electric shock, fire, or serious injury.



Always wear eye protection. Any power tool can throw foreign objects into your eyes and cause permanent eye damage. ALWAYS wear safety goggles (not glasses) that comply with ANSI safety standard Z87.1. Everyday glasses have only impact resistant lenses. They ARE NOT safety glasses.

**⚠ WARNING:**

**Glasses or goggles not in compliance with ANSI Z87.1 could cause serious injury when they break.**

Always keep hands out of the path of the saw blade. Avoid awkward hand positions where a sudden slip could cause your hand to move into the path of the saw blade.

Secure workpiece. Use clamps or a vice to hold the workpiece. It is safer than using your hand and it frees both hands to operate the tool.

Make sure there are no nails or foreign objects in the part of the workpiece to be cut or sanded.

To avoid injury from accidental starting, always remove the battery from the tool before installing or removing an accessory.

Never use dull blades in the tool. They will cut slower, leave rough cuts, and break easily due to added pressure and excessive heat. They will also overload the motor and cause premature failure of the tool.

Never use damaged or bent blades. They will be brittle and break easily possibly causing injury to the operator.

Never touch a saw blade immediately after using the tool. The blade will be extremely hot and will burn your hand.

Only use accessories designed for use with this tool.

## BATTERY & CHARGER SAFETY

### **WARNING:**

**Only use the diagnostic charger available for this tool to charge the 20V Li-ion battery. Charging any other batteries may damage the charger and possibly cause serious injury.**

Do not store or carry the battery in a manner in which metal objects could contact the exposed metal end. Do not place the battery in aprons, pockets, drawers, etc. with loose nails, screws, keys etc. The battery could short circuit causing a fire, personal injury, or damage to the battery.

Never attempt to open the battery for any reason. If the housing of the battery breaks or cracks, immediately discontinue use and do not recharge.

Do not charge the battery if it is wet or shows any evidence of corrosion.

A small leakage from the battery may occur under extreme usage, charging or temperature conditions. This does not indicate a failure. However, if the outer seal is broken and this leakage gets on your skin, follow these steps:

1. Wash immediately with soap and water.
2. Neutralize with a mild acid such as lemon juice or vinegar.
3. If liquid gets into your eyes, flush immediately with clean water for a minimum of 10 minutes and seek medical attention.

**NOTE:** The battery liquid is slightly acidic.

Do not incinerate the battery. It can explode in a fire.

Do not use an extension cord. Plug the charger cord directly into an electrical outlet.

Use the charger only in a standard 120 V AC, 60 Hz electrical outlet.

Do not use the charger in wet or damp conditions. It is intended for indoor use only. Do not use the charger near sinks or tubs. Do not immerse the charger in water.

Do not allow the cord to hang over the edge of a table or counter or touch hot surfaces. The charger should be placed away from sinks and hot surfaces.

Do not use the charger to charge any batteries other than the oscillating tool batteries. Other batteries may explode.

Do not operate the charger if the cord or plug is damaged. Replace the damaged cord and plug immediately.

Do not operate the charger if it has received a sharp blow, been dropped or otherwise damaged in any way. Have a qualified technician examine the charger and repair it if necessary. Do not disassemble the charger.

Do NOT charge the batteries when the work area or the battery temperature is at or below 0° C (32° F) or above 45° C (113° F).

Unplug the charger when not in use and before cleaning or maintenance.



**BATTERY PACK RECYCLING**

To preserve our natural resources, please recycle or dispose of batteries properly.















The batteries charged by this charger may contain chemicals and metals that are harmful to the environment. Never dispose of re-chargeable batteries in your normal household garbage or in landfill sites as they will add to the pollution of the environment.

Please call 1-800-822-8837 for the location of your nearest RBRC battery recycling location.



## SYMBOLS

**⚠️ WARNING:** Some of the following symbols may appear on the oscillating tool. Study these symbols and learn their meaning. Proper interpretation of these symbols will allow for more efficient and safer operation of this tool.

V	Volts		Three-phase alternating current
A	Amperes		Three-phase alternating current with neutral
Hz	Hertz		Direct current
W	Watts		No load speed
kW	Kilowatts		Alternating or direct current
μF	Microfarads		Class II construction
L	Liters		Splash-proof construction
kg	Kilograms		Watertight construction
H	Hours		Protective grounding at terminal, Class I tools
N/cm <sup>2</sup>	Newtons per square centimetre		Revolutions or reciprocations per minute
Pa	Pascals		Diameter
Min	Minutes		Off position
S	Seconds		Directional arrow
~ or AC	Alternating current		Warning symbol

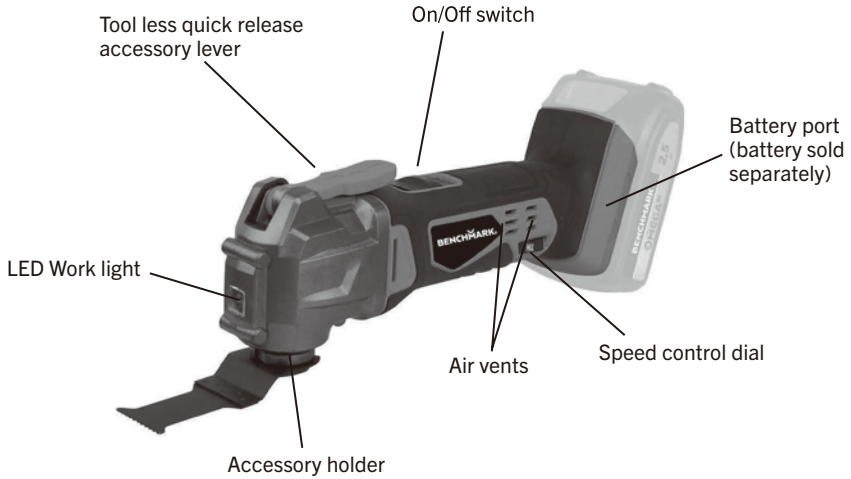


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This symbol designates that this tool is listed with U.S. requirements by ETL Testing Laboratories, Inc. Conforms to UL 60745-1, 60745-2-3.

Certified to CAN/CSA STD C22.2 No. 60745-1, 60745-2-3.

## KNOW YOUR OSCILLATING TOOL



OSCILLATING TOOL COMPONENTS		
KEY	DESCRIPTION	QTY
A	1-1/8" bi-metal plunge blade	1
B	Triangular sanding base	1
C	Triangular sandpaper	
	60 grit	3
	80 grit	3
	120 grit	3

## ASSEMBLY AND OPERATING

### INSTALLING ACCESSORIES

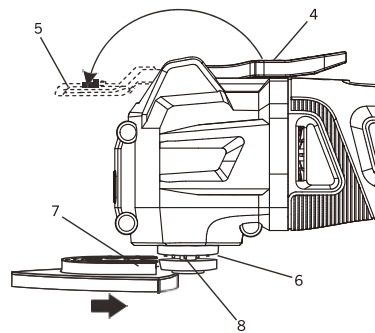
All accessories are installed on this Oscillating tool in a similar manner. For the purposes of describing the accessory installation, the triangular sanding pad has been illustrated.

**⚠ DANGER: Always remove the battery from the tool before installing or removing accessories or sandpaper. Failing to remove the battery may result in the tool accidentally being started and causing serious injury to the operator.**

1. Lift the tool less accessory holder release lever and rotate 180° (4) up and toward the front of the tool as far as it will go (5) (Fig. 1).

**NOTE: This will open the tool less blade holder (6) to accept the accessory.**

2. Insert the accessory mount (7) into the opened accessory holder. 4.
3. Align the accessory mounting slots and holes with the accessory mounting teeth (8) in the accessory mount.



**Fig. 1**

**NOTE: The slots and holes in the accessory must be engaged with the matching teeth on the accessory holder to allow the accessory to be secured within the accessory holder.**

4. Move the tool less accessory release lever back to its original position (4) to clamp the accessory into the accessory holder.

**NOTE: Check to make sure the accessory mounting pins are still aligned with the slots and holes in the accessory mount.**

### INSTALLING SANDPAPER

1. Install the hook & loop sanding pad on to the tool.
2. Firmly press the sandpaper onto the hook & loop pad.

**NOTE:** Press the sandpaper firmly onto the hook & loop pad.

3. To remove the sandpaper, simply peel the sandpaper away from the hook & loop pad.

### ON/OFF SWITCH

1. To turn the tool ON, slide the ON/OFF switch (1) toward the front of the tool (Fig. 2).
2. To turn the tool OFF, slide the ON/OFF switch toward the rear of the tool.

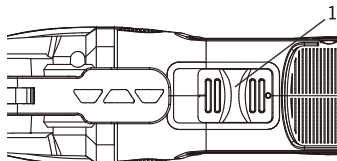


Fig. 2

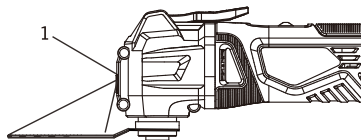


Fig. 3

### LED WORK LIGHT

This tool is equipped with an LED work light (Fig. 3). The work light (1) will automatically turn ON when the tool is turned on and will turn OFF when the tool is turned off.

### SPEED CONTROL WHEEL

The speed of the tool can be adjusted to run at speeds varying between 8,000 OPM and 18,000 OPM by rotating the speed control wheel located toward the rear of the tool housing.

1. To increase the speed, rotate the speed control wheel to the rear of the tool.
2. To decrease the speed, rotate the speed control wheel toward the front of the tool.

**NOTE: Speed #1 is the lowest speed. "MAX" is the highest speed.**

The optimal speed setting will vary depending upon the type of accessory being used, the surface being worked and the complexity of the project. For general recommendations, see the chart on the following page.

Project	Accessory	Speed
Balsa wood	Wood blade	Low
Drywall	Half circle blade	Maximum
Restoring windows	Half circle blade	Medium
Door jamb	Wood blade	Maximum
Door casing	Wood blade	Med / max
Wood dowels	Wood blade	Maximum
Floor vent	Wood blade	Med / max
PVC pipe	Wood blade	Medium
Glued flooring	Scraper	Medium
Sanding	Sander	Med / max

## USING THE DETAIL SANDER ATTACHMENT

1. Install the sanding pad on the oscillating tool.
2. Install the sandpaper on the sanding pad.
3. Set the speed control wheel between #5 and MAX.
4. Turn the switch ON.

This tool is designed for detail sanding on small surface areas. Place the sandpaper surface of the sanding pad on the workpiece to be sanded. Keep the tool moving to avoid gouging the surface. Use coarse sandpaper and lower speeds when sanding rough surfaces and for removing previous finishes. Use fine sandpaper and higher speeds to produce the smoothest surface.

## MAINTENANCE

### GENERAL

**⚠️ WARNING: When servicing, use only identical replacement parts. The use of any other part may create a hazard or cause product damage.**

DO NOT use solvents when cleaning plastic parts. Plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use a clean cloth to remove dirt, dust, oil, grease etc.

**⚠️ WARNING: Do not allow brake fluids, gasoline, petroleum-based products, penetrating oils, etc. to come into contact with plastic parts. They contain chemicals that can damage, weaken, or destroy plastic.**

DO NOT abuse power tools. Abusive practices can damage the tool and the workpiece.

**⚠️ WARNING: DO NOT attempt to modify tools or create accessories. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury. It will also void the warranty.**

### LUBRICATION

All of the bearings in this rotary tool have been lubricated with a sufficient quantity of high-grade lubricant for the life of the tool under normal conditions. No further lubrication is required.

### BATTERY PACK REMOVAL AND PREPARATION FOR RECYCLING

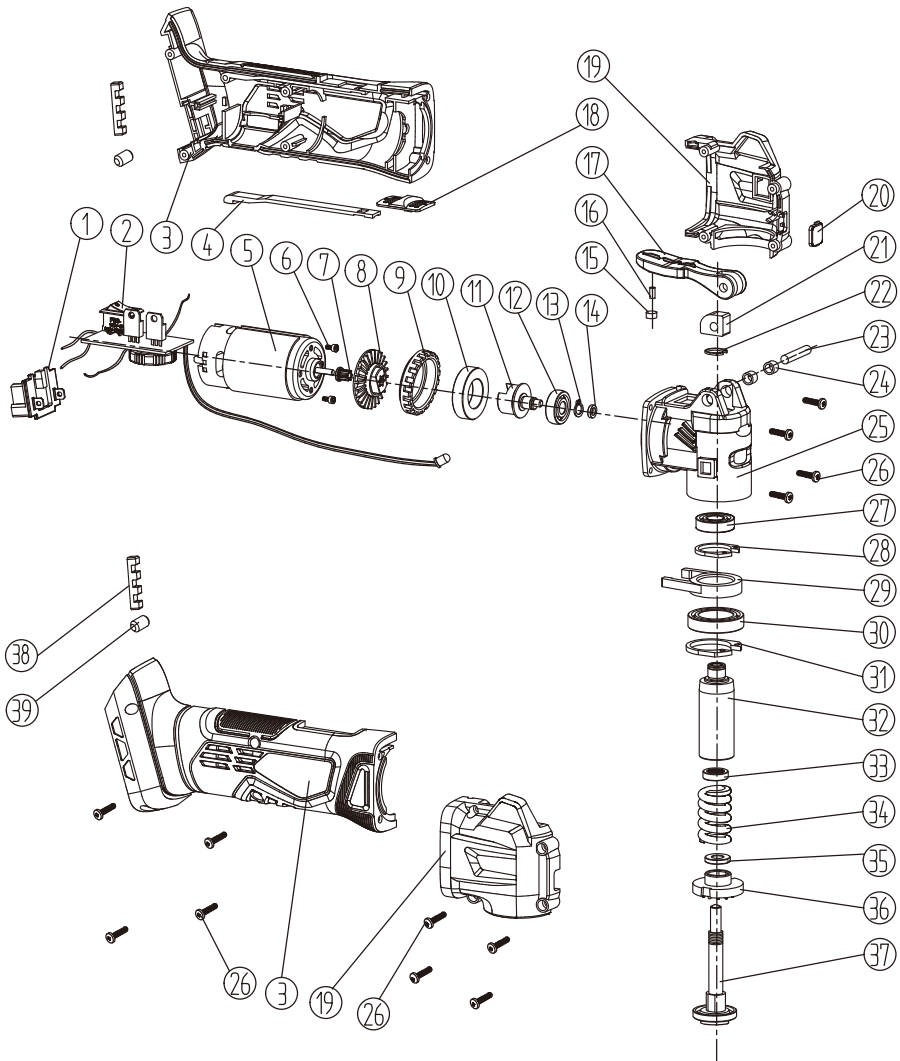
To preserve our natural resources, please recycle or dispose of batteries properly.

The batteries accompanying this tool may contain chemicals and metals that are harmful to the environment. Never dispose of rechargeable batteries in your normal household garbage or in landfill sites because they will add to the pollution of the environment.

Consult your local waste authority for information regarding available recycling and disposal options.

**⚠ WARNING:** Upon removal of the battery pack, cover the terminals of the battery pack with electrical tape or heavy-duty adhesive tape. Never touch both terminals with metal objects or body parts because a short circuit may result. Keep away from children. Do not attempt to destroy or disassemble battery pack or remove any of its components. Rechargeable batteries must be recycled or disposed of properly. Failure to comply with these warnings could result in fire and serious injury.

**EXPLODED VIEW**



## PARTS LIST

**⚠️ WARNING** When servicing, use only original equipment replacement parts. The use of any other parts may create a safety hazard or cause damage to the tool. Any attempt to repair or replace electrical parts on this tool may create a safety hazard unless repairs are performed by a qualified technician. For more information, call the Toll-free Helpline, at 1-866-349-8665.

Always order by PART NUMBER, not by key number.

Key #	Part #	Part Name	Quantity
1	3150170016	electrode plates	1
2	1130030048	circuit board assembly	1
3	3010170005	housing	1
4	3120110069	lever	1
5	1030050009	580 motor	1
6	4020080062	SCREW M3x4	2
7	2010180052	motor spline	1
8	3150010112	fan	1
9	3150210019	plastic block	1
10	4010010145	bearing 6903Z	1
11	2040050151	eccentric shaft	1
12	4010050001	bearing S607	1
13	4100020018	ring 7	1
14	4010010142	Bearing 628/4	1
15	2010170030	magnetic block 6x4	1
16	4110070003	Pin 4.5X6	1
17	3120100057	wrench	1
18	3120110068	button	1
19	3160100014	plastic shell	1
20	3160060089	led cover	1
21	2010160028	eccentric	1
22	4100020012	ring 10	1
23	2040160178	pin 5X26	1
24	2040310038	Shaft sleeve	2
25	2020050081	Aluminum head shell	1
26	4030010034	Screw ST2.9X16	12
27	4010010022	bearing 6900-2Z	1
28	4100010007	ring 22	1
29	2040250028	fork	1



30	4010010146	bearing6804Z	1
31	4100010005	ring 32	1
32	2040290093	output shaft	1
33	2030240006	nut	1
34	2050060251	spring8.2x2.5x38	1
35	2030020354	washer 14.5x8.2x2	1
36	2040310049	adapter sleeve	1
37	2040290079	pin-lift	1
38	3140060080	slazenger	2
39	3140060076	rubber column	2

## WARRANTY

### BENCHMARK 20V MAX OSCILLATING TOOL

If this Benchmark tool fails due to a defect in material or workmanship within five years from the date of purchase, return it to any Home Hardware store with the original bill of sale for exchange. 3-year warranty for the battery and charger. This warranty does not include expendable parts including but not limited to blades, brushes, belts, light bulbs.

This warranty covers defects in material or workmanship only. It does not cover normal wear and tear, failure due to abuse/misuse, or defects caused by careless or accidental mishandling. If this Benchmark product is used for commercial or rental purposes, this warranty does not apply.

# 20V MAX OSCILLATING MULTI-TOOL KIT



5 Year Limited Warranty on tool  
Battery and charger sold separately

**BENCHMARK™**  
MC

**BENCHMARK TOOLS CANADA**  
ST. JACOBS, ONTARIO N0B 2N0

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**CUSTOMER SERVICE/TECH SUPPORT**  
1-866-349-8665

**1280-001**

Made in China



\* This Benchmark™ product carries a five (5) year LIMITED warranty against defects in workmanship and materials. The charger and batteries carry a three (3) year LIMITED warranty. See Owner's Manual for full details.



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