

# BENCHMARK<sup>TM</sup> MC

## 20V MAX 5" RANDOM ORBIT SANDER



5 Year Limited Warranty on tool  
BATTERY AND CHARGER SOLD SEPARATELY



JD510720

**READ ALL INSTRUCTIONS BEFORE FIRST USE.  
KEEP THIS MANUAL FOR FUTURE REFERENCE.  
KEEP AWAY FROM CHILDREN.  
SEE NEXT PAGE FOR CRITICAL TOOL RELATED  
PRECAUTIONS.**

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

### 20V MAX 5" RANDOM ORBIT SANDER

Voltage	20v
3/32" Orbit Speed (3mm)	VS 6,000-12,000 OPM
Sanding Sheet	5" (127mm)
Sanding Paper Attachment	Hook & Loop
Tool Weight (without battery)	3.75lbs. (1.7kg)
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

### CRITICAL TOOL RELATED PRECAUTIONS

 **WARNING:** Do not use on drywall compound or plaster. Fine dust may clog and damage the tool. Use on these materials may void the warranty.

Batteries must be fully charged before first use and must be charged and stored indoors in a cool, dry environment. Exposure to temperature extremes will reduce battery performance and lifespan.

Always use dust extraction and wear approved respiratory protection. Sanding dust may be hazardous.

### 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

### **WARNING:**

Before using this tool or any of its accessories, read this manual and follow all Safety Rules and Operating Instructions. The important precautions, safeguards and instructions appearing in this manual are not meant to cover all possible situations. It must be understood that common sense and caution are factors which cannot be built into the product.

### EYE, EAR & LUNG PROTECTION

SYMBOL	MEANING
<p> <b>DANGER</b></p> 	<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>
<p> <b>WARNING</b></p> 	<p>Use hearing protection, particularly during extended periods of operation of the tool, or if the operation is noisy.</p>
<p> <b>WARNING</b></p> 	<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>
<p> <b>WARNING</b></p> 	<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>

## GENERAL SAFETY RULES

**⚠️ 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.**

### 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.

### 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 a ground fault circuit interrupter (GFCI) protected supply. Use of a ground fault circuit interrupter (GFCI) reduces the risk of electric shock.

### 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 energizing 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.

## 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.

**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.

**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.

**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.

**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.

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

## BATTERY TOOL USE AND CARE

1. Charge a rechargeable battery using only the charger recommended by the manufacturer. Chargers are often designed for a particular type of rechargeable battery unit. There is a risk of fire if a battery charger specified for a particular type of battery is used with other batteries.
2. Only the rechargeable battery units supplied are to be used with an electrical power tool. The use of other rechargeable battery units may lead to the danger of injury or fire.
3. When they are not being used, store rechargeable battery units away from paperclips, coins, keys, nails, screws or other small metal objects that could cause the contacts to be bridged. Short circuiting the contacts of a rechargeable battery unit may result in heat damage or fire.

4. Fluids may leak out of rechargeable battery units if they are misused. If this happens, avoid contact with the fluid. If contact occurs, flush the affected area with water. Seek additional medical help if any of the fluid gets into your eyes. Escaping battery fluid may cause skin irritation or burns.
5. Do not use damaged or modified batteries. Damaged or modified batteries may behave unexpectedly and cause fires, explosions or pose a risk of injury.
6. Do not expose a battery to fire or excessively high temperatures. Fire or temperatures more than 130°C (265°F) can cause an explosion.
7. Follow all instructions regarding charging and never charge the battery or the cordless tool outside of the temperature range given in the operating instructions. Incorrect charging or charging outside of the permissible temperature range can destroy the battery and increase the risk of fire.

## SERVICE

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.

## SPECIFIC SAFETY RULES FOR RANDOM ORBIT SANDER

**⚠️ WARNING:** Know your random orbit sander. Do not plug in the sander 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.**

**⚠️ WARNING: Always use a dust mask when sanding.**

**⚠️ WARNING: Always use hearing protection when sanding, particularly during extended periods of operation.**

**⚠️ WARNING: Always unplug the tool from the power source before changing accessories, sandpaper and when cleaning the tool.**

Do not wear gloves, neckties or loose clothing.

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

Do not sand material too small to be securely held.

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

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

To avoid injury from accidental starting, always remove the plug from the power source before installing or removing dust box.

Do not rest your hands next to or in front of the sander and the area being worked as there is a risk of injury if you slip.

#### **RISK OF FIRE DUE TO FLYING SPARKS!**

Sanding metal causes sparks to be produced. Therefore, make sure that nobody is at risk and that no combustible materials are located in the immediate vicinity of where you are working.

#### **WARNING! TOXIC VAPOURS!**

Working with the tool can produce harmful/ toxic dusts that represent a health hazard for the person operating the appliance and for any other people in the area.

#### **WARNING! RISKS DUE TO DUST!**

When working for extended periods of time on wood and, in particular, materials that produce dust that is hazardous to health, connect the appliance to a suitable external dust extraction appliance. Wear safety goggles and a protective dust mask!

Provide sufficient ventilation when working on plastics, paints, lacquers,

Avoid contact with sanding disc while the tool is running.

Never work on moistened or damp surfaces.

Do not use tool without the sanding disc attached.















Always allow the tool to come to a complete stop before putting the tool down.

Keep tool clean, dry and free from oil or grease.

Use only the accessories provided and/or recommended by the manufacturer.

## SYMBOLS

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

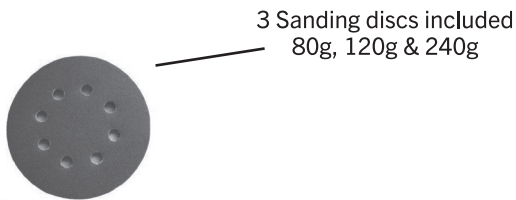
V	Volts		Three-phase alternating current with neutral
A	Amperes		Direct current
Hz	Hertz		No load speed
W	Watts		Alternating or direct current
kW	Kilowatts		Class II Construction
μF	Microfarads		Splash-proof construction
L	Litres		Watertight construction
kg	Kilograms		Protective grounding at terminal,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



JD510720

This symbol designates that this tool is listed with U.S. and Canadian requirements by cTUVus Testing Laboratories, Inc. UL62841-1, UL62841-2-4; CSA C22.2#62841-1, CSA C22.2#62841-2-4.

## KNOW YOUR ORBIT SANDER



## ASSEMBLY

### INSTALLING THE DUST BAG ASSEMBLY

**⚠ WARNING:** Remove battery before assembly.

(1) Slide the dust bag into the back of the tool as far it will go (Fig. 1).

**NOTE:** Remove and clean the dust bag assembly often to remove accumulated dust from the dust bag.



Fig 1

### CLEANING THE DUST BAG

The dust bag will collect much of the sanding dust that is generated during sanding operations. As a result, it must be cleaned out periodically so the dust collection will be efficient.

1. Remove the dust bag from the sander by gently pulling off the back of the tool.

### INSTALLING SANDPAPER

**⚠ WARNING:**

Remove the battery from the before installing or changing the sandpaper.

**NOTE:** Before fitting a new sanding disc on the tool, ensure you remove any dust and/or dirt from sanding base.

1. To attach a sanding disc to your sander, face your sander upside down and simply place the surface of the disc – which has the tiny loops – on the backing pad, and employing pressure, press both surfaces together.
2. Ensure the extraction holes on the sanding disc match up with the holes in the sanding base.

## OPERATING

### ON/OFF SWITCH

To turn the sander ON, ensure battery is charged and inserted into the back of the sander, then press the switch to the “I”, to turn it off press switch to the “0” position. (Fig. 2)



Fig 2

### SPEED ADJUSTMENT

Your orbital sander is equipped with a speed setting wheel. To set speed, turn speed wheel to desired speed setting. Note, the lowest number equals the lowest speed setting. The highest number is the highest speed.

### SANDPAPER SELECTION

Selecting the correct grit and type of sandpaper is extremely important in achieving a high-quality sanded finish. Aluminum oxide, silicon carbide and other synthetic abrasives are best for power sanding. Natural abrasives such as flint and garnet are too soft for economical use in power sanding. In general, coarse grit will remove the most material and finer grit will produce the best finish in all sanding operations. The condition of the surface to be sanded will determine which grit will do the best job. If the surface is rough, start with a coarse grit and sand until the surface is uniform. Medium grit may then be used to remove scratches left by the coarser grit. Fine grit should be used for finishing the surface. Always continue sanding with each grit until the surface is uniform.

**⚠️ WARNING:** Always wear safety goggles or safety glasses with side shields when operating your sander. Failure to do so could result in foreign objects being thrown into your eyes resulting in possible serious eye damage.

Always wear an appropriate dust mask and hearing protection when using your sander.

**⚠ WARNING:**

For safety reasons, the operator must read the sections of this Owner's Manual entitled "GENERAL SAFETY WARNINGS", "POWER TOOL SAFETY", "SPECIFIC SAFETY RULES", "EXTENSION CORD SAFETY" and "SYMBOLS" before using this cut-out tool.

Verify the following every time the pad sander is used:

1. Safety glasses and dust mask are being worn.
2. Hearing protection is being worn.
3. Sandpaper is the correct type for the job.  
Sandpaper is in good condition and is properly installed.

Failure to adhere to these safety rules can greatly increase the chances of serious injury.

## SANDING

Clamp or otherwise secure your workpiece to prevent it from moving under the sander while being sanded.

**⚠ WARNING:** An unsecured workpiece could be thrown toward the operator causing injury.

Place the sander on the workpiece so that the complete sandpaper surface is in contact with the workpiece. Turn the sander ON by pressing on the side of the ON/OFF switch. Move the sander slowly over workpiece making successive passes in parallel lines, circles or crosswise movements.

Upon completion of the sanding operation, turn the sander OFF by pressing on the opposite side of the ON/OFF switch. Wait until the sanding pad comes to a complete stop before removing it from the workpiece.

**⚠ WARNING:** Your sander should only be turned ON when the entire surface of the sanding pad is in contact with the workpiece. Failure to follow this sanding procedure could result in loose sandpaper which could result in possible injury.

**NOTE:** Hold the sander using the grip on top of the sander. Be careful NOT to cover the motor cooling vents with your hand. Motor damage may occur from over heating if the cooling vents are covered.

**DO NOT FORCE THE SANDER.** The weight of the sander usually provides adequate pressure. Let the sander and the sandpaper do the work. Applying added pressure will slow the motor, increase the wear on the sandpaper and greatly reduce the sander speed. Motor damage may occur if excessive downward pressure is applied. It will also create an inferior finish on sanded work. Any finish or resin on wood will soften from the frictional heat, causing the sandpaper to become clogged very quickly. Do not sand in one spot too long as the sander's rapid action may remove too much material, making the surface uneven. Extended periods of sanding may tend to overheat the motor. If this occurs, turn sander OFF, wait until the sanding pad comes to a complete stop and remove it from the workpiece. Check to make sure your hand has not been covering the cooling vents. Let the motor cool before continuing the sanding operation.

## 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.**

Remove accumulated dust and debris regularly using a soft DRY brush.

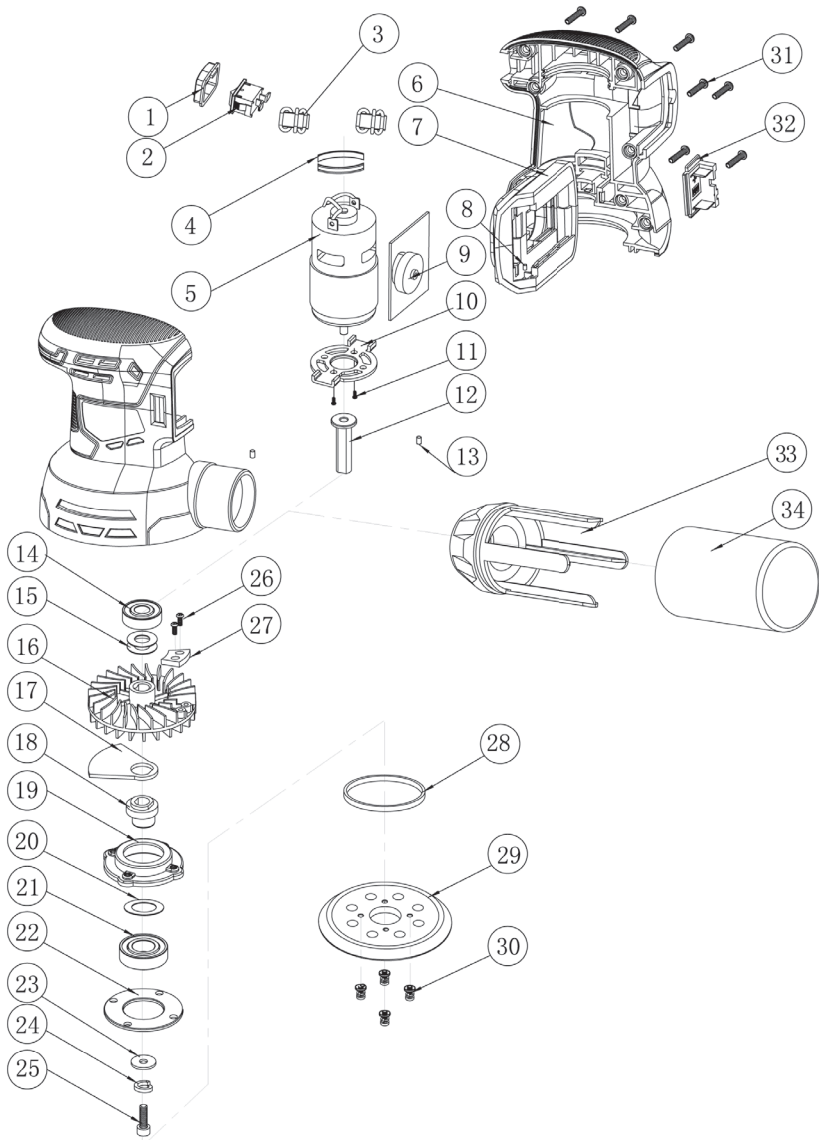
It has been found that electric tools are subjected to accelerated wear and possible premature failure when they are used on fiberglass boats and sports cars, wallboard, spackling compounds or plaster. The chips and grindings from these materials are highly abrasive to electric tool parts such as bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiberglass material, wallboard, spackling compounds or plaster. During any use on these materials it is extremely important that the tool is cleaned frequently by blowing it out with an air jet.

**⚠️ WARNING: Always wear safety goggles or safety glasses with side shields during all sanding operations. It is critical that you also wear safety goggles or safety glasses with side shields and a dust mask while blowing dust out of the cut-out tool with an air jet. Failure to take these safety precautions could result in permanent eye or lung damage.**

### LUBRICATION

All of the bearings in this random orbit sander are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal conditions. Therefore, no further lubrication is required.

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 sander .

Any attempt to repair or replace electrical parts on this sander 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  
Monday – Friday from 9am to 5pm Eastern Standard Time.

Always order by PART NUMBER, not by key number.

Key #	Part #	Part Name	Quantity
1	3140080054	SWITCH COVER	
2	1061250001	SWITCH	
3	2010170026	MAGNET	
4	3140060073	ANTI-VIBRATION BAR	
5	1030080021	785 MOTOR	
6	3010040013	HOUSING	Pair
7	3010040015	FOOT PLATE	Pair
8	3140060076	RUBBER BAR	
9	1130010291	PCB	
10	2030220009	785 MOTOR FLANGE	
11	4020010143	SCREW M4X8	
12	2040050176	CONNECTING SHAFT	
13	3140060031	ANTI-VIBRATION BAR	
14	4010010054	BEARING 6000-2RS	
15	2030020390	WASHER 65MN	
16	3150010107	FAN	
17	2030030315	BALANCE WEIGHT	
18	2010130030	ECCENTRIC	
19	2020130001	BEARING SEAT	
20	2030170007	WASHER	
21	4010010084	BEARING 6002-2RS	
22	3150130172	PRESSURE PLATE	
23	2030020033	WASHER	
24	4040030011	WASHER	
25	40200800 7 5	SCREW	
26	4030010174	SCREW ST3.9X8	
27	2030030238	AUXILIARY BALANCE WEIGHT	
28	3190010058	WOOL FELT (WIDTH 7.3M BLACK)	

Key #	Part #	Part Name	Quantity
29	1150020153	PLATE	
30	4020010142	SCREW M5X14	
31	4030010106	SCREW ST3.9X19	
32	3150170016	TERMINAL PLATE	
33	3180060023	HOLDER	
34	3180040130	DUST BAG	

## **WARRANTY**

### **BENCHMARK RANDOM ORBIT SANDER**

If this Benchmark Tool fails due to a defect in material or workmanship within 5 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 Radley product is used for commercial or rental purposes, this warranty does not apply.



*20V MAX 5" RANDOM ORBIT SANDER*

**1262-001**

# 20V MAX 5" RANDOM ORBIT SANDER



5 Year Limited Warranty on tool  
BATTERY AND CHARGER SOLD SEPARATELY

**BENCHMARK**™  
MC

**BENCHMARK TOOLS CANADA**  
ST. JACOBS, ONTARIO N0B 2N0  
© 01 / 2021 Home Hardware Stores Limited

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

**1262-001**

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.



JD510720

**READ ALL INSTRUCTIONS BEFORE FIRST USE.  
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KEEP AWAY FROM CHILDREN.**

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is 20 volts. Nominal voltage is 18 volts.



**WEAR CSA APPROVED  
EYE PROTECTION**



**WEAR EAR  
PROTECTION**



**WEAR A  
FACE MASK**