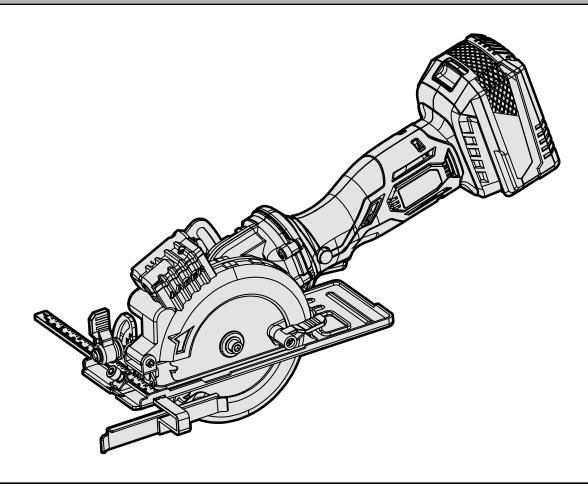


**MODEL 20604, 20604BT** 

# **20V MAX 4-1/2" CORDLESS** MINI CIRCULAR SAW

**Instruction Manual** 



### **NEED HELP? CONTACT US!**

Have product questions? Need technical support? Please feel free to contact us:



1-847-429-9263 (M-F 8AM-5PM CST)



TECHSUPPORT@WENPRODUCTS.COM

**IMPORTANT:** Your new tool has been engineered and manufactured to WEN's highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged. trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use vour tool properly and for its intended purpose, you will enjoy years of safe, reliable service.

### CONTENTS

WELCOME	3
Introduction	
Specifications	3
SAFETY	4
General Safety Rules	
Circular Saw Safety Warnings	6
Electrical Information (Charger)	9
Battery & Charger Safety Warnings	10
BEFORE OPERATING	12
Unpacking & Packing List	
Know Your Circular Saw	13
Assembly & Adjustments	14
OPERATION & MAINTENANCE	18
Operation	18
Maintenance	19
Exploded View & Parts List	20
Warranty Statement	23

### To purchase accessories and replacement parts for your tool, visit **WENPRODUCTS.COM**

**20V 2.0Ah Max Battery** (Model 20202, 20202B, 20202D)

**20V 4.0Ah Max Battery** (Model 20204, 20204B, and 20204D)

**20V 5.0Ah Max Battery** (Model 20205)

**20V 2A Charger** (Model 20200C)

**20V 2A Dual Port Charger** (Model 20200D)

20V 5A Quick Charger (Model 20201Q)

4-1/2-Inch 24-Tooth Woodworking Replacement Saw Blades (3 Pack) (Model BL0424)

WEN plans to continue to add more items to our 20V line. For an up-to-date list of the 20V cordless tools compatible with the included battery and charger, visit **wenproducts.com** and search model number 20202 (2Ah), 20204 (4Ah), or 20205 (5Ah). In the battery's description, there will be a list of current products that this battery can be used with.

### INTRODUCTION

Thanks for purchasing the WEN Circular Saw. We know you are excited to put your tool to work, but first, please take a moment to read through the manual. Safe operation of this tool requires that you read and understand this operator's manual and all the labels affixed to the tool. This manual provides information regarding potential safety concerns, as well as helpful assembly and operating instructions for your tool.

Indicates danger, warning, or caution. The safety symbols and the explanations with them deserve your careful attention and understanding. Always follow the safety precautions to reduce the risk of fire, electric shock or personal injury. However, please note that these instructions and warnings are not substitutes for proper accident prevention measures.

**NOTE**: The following safety information is not meant to cover all possible conditions and situations that may occur. WEN reserves the right to change this product and specifications at any time without prior notice.

At WEN, we are continuously improving our products. If you find that your tool does not exactly match this manual, please visit **wenproducts.com** for the most up-to-date manual or contact our customer service at **1-847-429-9263**.

Keep this manual available to all users during the entire life of the tool and review it frequently to maximize safety for both yourself and others.

### **SPECIFICATIONS**

Model Number	20604, 20604BT
Included Battery*	2.0Ah Battery (Model 20202)*
Included Charger*	20V, 2A DC (Model 20200C)*
No-Load Speed	4500 RPM
Blade Diameter	4-1/2 in.
Blade Body Thickness	1.0mm
Blade Kerf	1.6mm
Arbor Size	3/8 in.
Maximum Cutting Dogeth	90° - 1-11/16 in.
Maximum Cutting Depth	45° - 1-1/8 in.
Adjustable Bevel	0° - 45°
Laser	Class II, 650 nm
Laser Power	0.278 mW
Laser Battery Type	LR44
Product Weight (Without Battery)	4.30 Pounds
Product Dimensions (Without Battery)	14.50 in. x 4.12 in. x 8.25 in.
Battery Models**	All WEN 20V MAX Batteries**
Charger Models	All WEN 20V MAX Chargers

\*NOTE: Battery and charger only included with model 20604. 20604BT does not include a battery or charger.

**\*\*NOTE:** Some tools may not be compatible with WEN 20V MAX 1.5Ah Batteries, model 49120B. Contact WEN customer service at **1-847-429-9263**, M-F with questions.

### **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.

Safety is a combination of common sense, staying alert and knowing how your item works. The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

### SAVE THESE SAFETY INSTRUCTIONS.

#### **WORK AREA SAFETY**

- **1. Keep work area clean and well lit.** Cluttered or 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 children and bystanders away while operating a power tool. Distractions can cause you to lose control.

#### **ELECTRICAL SAFETY**

- 1. 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.
- 2. 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.
- **3. Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- 4. 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.
- **5. 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.

6. If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply. Use of a GFCI reduces the risk of electric shock.

### **PERSONAL SAFETY**

- 1. 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.
- 2. Use personal protective equipment. Always wear eye protection. Protective equipment such as a respiratory mask, non-skid safety shoes and hearing protection used for appropriate conditions will reduce the risk of personal injury.
- 3. 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.
- **4. 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.
- **5.** Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- 6. Dress properly. Do not wear loose clothing or jewelry. Keep your hair and clothing away from moving parts. Loose clothes, jewelry or long hair can be caught in moving parts.

### **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.

Safety is a combination of common sense, staying alert and knowing how your item works. The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

### SAVE THESE SAFETY INSTRUCTIONS.

7. 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**

- 1. 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.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. 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.
- **6. Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

- 7. Use the power tool, accessories and tool bits, etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
- **8.** Use clamps to secure your workpiece to a stable surface. Holding a workpiece by hand or using your body to support it may lead to loss of control.
- **9. KEEP GUARDS IN PLACE** and in working order.

#### SERVICE

1. 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.

#### CALIFORNIA PROPOSITION 65 WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals, including lead, known to the State of California to cause cancer, birth defects, or other reproductive harm. Wash hands after handling. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement, and other masonry products.
- 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 with approved safety equipment such as dust masks specially designed to filter out microscopic particles.

### CIRCULAR SAW SAFETY WARNINGS

**WARNING!** Do not operate the power tool until you have read and understood the following instructions and the warning labels.

### **CIRCULAR SAW SAFETY**

- 1. TOOL PURPOSE. This circular saw is designed to cut through wood. Cutting other materials could result in fire, injury, or damage to the workpiece. Using the machine for any other purpose for which it is not designed may result in serious injuries, machine damage and voiding of the warranty.
- 2. CHECK THE BASE PLATE FOR PROPER MOVEMENT BEFORE EACH USE. Press the lock-off button to make sure the base plate can move freely and does not touch the blade or any other parts. Do not operate the saw if the base plate does not move or does not open and close smoothly. Dropping the saw may cause the base plate to not work properly.

#### 3. PERSONAL SAFETY.

- Always wear ANSI Z87.1-approved glasses with side shields, hearing protection and a dust mask.
- Do not wear loose clothing or jewelry, as they might get drawn in by the tool. Tie back long hair.
- DO NOT wear gloves while operating this machine.
- **4. ELECTRIC CORDS**. Keep cords away from heat, oil, sharp edges, and moving parts of the tool. Have an electrician replace or repair damaged or worn cords immediately.
- **5. TOOL INSPECTION.** Before operation, check the tool for any damaged or missing parts. Do not use the tool if any part is missing or damaged. Do not use the tool if the power switch is faulty, the battery or battery terminal is damaged, or the tool produces sparks, smoke, or unpleasant odors (you may smell brushes wearing down for a few minutes as the tool breaks in during the first use, that is normal). Make sure all adjustments are correct and all connections are tight.
- **6. SECURING THE WORKPIECE.** Use clamps to secure the workpiece whenever possible to prevent wobble, damage to the workpiece, and personal injury. Never hold a piece being cut in your hands or across your legs. It is important to support the work properly to minimize body exposure, blade binding, or loss of control.

- **7. STANDING POSITION.** Keep your body positioned to either side of the saw blade, but not in line with cutting path. Kickback could cause the saw to jump backwards.
- **8. STARTING THE TOOL.** Always start the saw before the blade is in contact with the workpiece. Let the blade reach full speed before using the tool. The reaction to the torque as the motor accelerates to full speed may cause the tool to kick back.
- **9. KEEP HANDS AWAY.** Keep hands away from the cutting area and the blade. Do not reach underneath the workpiece. The blade guard cannot protect you from the blade protruding from the underside of the workpiece. Do not attempt to remove cut material when the blade is moving.
- **10. DURING OPERATION**. Do not apply excessive pressure to the tool. Overstressing the tool may cause kickback and damage the tool and accessories. Use special care when working corners, sharp edges etc.
- **11. TURNING OFF THE TOOL.** The blade coasts after the saw is turned off. Wait until the blade comes to a full stop before reaching for loose materials or setting the tool down.
- **12. REPLACING THE SAW BLADE.** Check the blade for chipped or broken teeth. Do not use dull or damaged blades. Unshaped or improperly set blades produce narrow kerf, causing excessive friction, blade binding, and kickback. Always use blades with correct size and arbor holes. Blades that do not match the mounting hardware of the saw will run eccentrically, causing a loss of control.
- 13. MAKING ADJUSTMENTS. Always turn OFF and remove the battery from the saw before making adjustments or changing attachments. Accidental start-ups may occur if the battery is installed during an accessory change. Develop a periodic maintenance schedule for your tool. Always make sure the power switch is in the OFF position and the battery is removed from the battery terminal when doing any cleaning, assembly, setup operations, or when not in use.

### CIRCULAR SAW SAFETY WARNINGS

**WARNING!** Do not operate the power tool until you have read and understood the following instructions and the warning labels.

### **CIRCULAR SAW SAFETY (CONT.)**

- **14. REPLACEMENTS.** Should any component of your saw be missing/damaged or fail in any way, shut OFF the switch and remove the battery from the battery terminal. Replace the missing, damaged, or failed parts using only identical replacement parts before resuming operation.
- **15. LOWER BLADE GUARD SAFETY.** Check lower blade guard for functionality before each use. To check the lower guard, remove the battery and open the lower guard by lifting the blade guard lever, then release and watch the guard close. Do not operate saw if lower guard does not move freely or close immediately. Leaving a blade exposed is very dangerous and can lead to serious personal injury.
- Never clamp, tie, or otherwise fix the lower guard into the open position.
- If the saw is accidentally dropped, the lower guard may bend. Raise the lower guard with the blade guard lever to make sure it moves freely without touching the blade or any other saw part for all angles and depths of possible cuts.
- Always ensure that the lower guard is covering the blade before placing the saw down on a bench or floor.
  An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after the switch is released.
- The lower guard should be retracted manually only for special cuts such as plunge cuts/pocket cuts. Raise the lower guard by retracting the lever. As soon as the blade enters the material, the lower guard must be released. For all other sawing, the lower guard should operate automatically.

These safety instructions can't possibly warn of every scenario that may arise with this tool, so always make sure to stay alert and use common sense during operation.

#### REDUCING KICKBACK

Kickback is a sudden reaction to a pinched, bound or misaligned saw blade, causing an uncontrolled saw to lift up and out of the work piece toward the operator. When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator. If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back towards the operator. Take the proper precautions below to reduce the risk of kickback.

- Maintain a firm grip on the saw and position your body and arm in a way that allows you to resist kickback forces. Kickback forces can be controlled by the operator, if proper precautions are taken.
- When a blade is binding (or when interrupting a cut for any reason), release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion or kickback may occur.
- When restarting a saw in the workpiece, center the blade in the kerf and check that the teeth are not engaged into the material. If the saw blade is binding, it may walk up or kickback from the work piece as the saw is restarted. Investigate and take corrective actions to eliminate the causes of blade binding.
- Support large workpieces to minimize the risk of blade pinching and kickback. Large panels and boards tend to sag under their own weight. Supports must be placed under the panel or board on both sides, near the edge of the panel or board.
- Do not use dull or damaged blades. Unshaped or improperly set blades produce narrow kerf, causing excessive friction, blade binding, and kickback.
- Blade depth and bevel adjusting locking levers must be tight and secure before making a cut. If the blade adjustment shifts while cutting, it will cause binding and kickback.

### CIRCULAR SAW SAFETY WARNINGS

**WARNING!** Do not operate the power tool until you have read and understood the following instructions and the warning labels.

#### LASER SAFETY

**ATTENTION!** LASER RADIATION. CLASS 2 LASER. DO NOT STARE INTO THE BEAM.

- 1. Do not look directly into the laser beam with unprotected eyes. Never look into the path of the beam.
- 2. Never point the laser beam towards reflective surfaces. Never point the laser towards people or animals. Even a laser beam with a low output can cause damage to the eyes.
- 3. Never open the laser module as unexpected exposure to the beam can occur. The laser cannot be replaced with a different type of laser.
- 4. Repairs of the laser may only be carried out by the laser manufacturer or an authorized representative.

#### LASER BATTERY SAFETY

- 1. Do not short-circuit batteries. Keep the batteries away from metal objects when not in use.
- 2. Do not charge non-rechargeable batteries.
- 3. Do not mix old and new batteries or batteries of different types. Replace an entire set of batteries at the same time.
- 4. Do not keep batteries near fire, ovens or other sources of heat. Do not use batteries in direct sunlight.
- 5. Remove batteries from the equipment when it will not be used for an extended period of time.
- 6. Never handle batteries that have leaked without appropriate protection. If the leaked fluid comes into contact with your skin, the skin in this area should be rinsed off under running water immediately. Always prevent the fluid from coming into contact with the eyes and mouth. In the event of contact, please seek immediate medical attention.
- 7. Do not dismantle batteries. Dispose of used batteries properly at your local collection/recycling facility.

### **ELECTRICAL INFORMATION (CHARGER)**

#### **DOUBLE-INSULATED CHARGER**

The charger's electrical system is double-insulated where two systems of insulation are provided. This eliminates the need for the usual three-wire grounded power cord. Double-insulated tools do not need to be grounded, nor should a means for grounding be added to the product. All exposed metal parts are isolated from the internal metal components with protecting insulation.



**IMPORTANT:** Servicing a double-insulated product requires extreme care and knowledge of the system, and should be done only by qualified service personnel using identical replacement parts. Always use original factory replacement parts when servicing.

- **1. Polarized Plugs.** To reduce the risk of electric shock, this equipment has 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 proper outlet. Do not modify the machine plug or the extension cord in any way.
- **2. Ground fault circuit interrupter protection** (GFCI) should be provided on the circuit or outlet used for this power tool to reduce the risk of electric shock.
- **3. Service and repair.** To avoid danger, electrical appliances must only be repaired by a qualified service technician using original replacement parts.

#### **GUIDELINES AND RECOMMENDATIONS FOR EXTENSION CORDS**

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. The table below shows the correct size to be used according to cord length and ampere rating. When in doubt, use a heavier cord. The smaller the gauge number, the heavier the cord.

REQUIRED GAUGE FOR EXT			R EXTENSION CORDS	
AWIFERAGE	AMPERAGE 25 ft.		100 ft.	150 ft.
2A	18 gauge	16 gauge	16 gauge	14 gauge

- **1. Examine extension cord before use.** Make sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.
- **2. Do not abuse extension cord.** Do not pull on cord to disconnect from receptacle; always disconnect by pulling on plug. Disconnect the extension cord from the receptacle before disconnecting the product from the extension cord. Protect your extension cords from sharp objects, excessive heat and damp/wet areas.
- **3. Use a separate electrical circuit for your tool.** This circuit must not be less than a 12-gauge wire and should be protected with a 15A time-delayed fuse. Before connecting the motor to the power line, make sure the switch is in the OFF position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.

### **BATTERY & CHARGER SAFETY WARNINGS**

Despite all of the safety precautions, caution must always be taken when handling batteries. The following points must be obeyed at all times to ensure safe use. Safe use can only be guaranteed if undamaged cells are used. Incorrect handling of the battery pack can cause cell damage.

- Avoid dangerous environments Do not charge the battery pack in rain, snow or in damp or wet locations. Do not use the battery pack or charger in the presence of explosive atmospheres (gaseous fumes, dust or flammable materials) because sparks may be generated when inserting or removing the battery pack, which could lead to a fire.
- Charge in a well-ventilated area Do not block the charger vents. Keep them clear to allow for proper ventilation. Do not allow smoking or open flames near a charging battery pack. Vented gases may explode.

**NOTE:** The safe temperature range for the battery charging is 41°F to 104°F. Do not charge the battery outside in freezing weather; charge it at room temperature.

- Maintain charger cord When unplugging the charger, pull the plug, not the cord, from the receptacle to reduce the risk of damage to the electrical plug and cord. Never carry the charger by its cord or yank it by the cord to disconnect it from the receptacle. Keep the cord away from heat, oil and sharp edges. Make sure the cord will not be stepped on, tripped over or subjected to damage or stress when the charger is in use. Do not use the charger with a damaged cord or plug. Replace a damaged charger immediately.
- Do not use an extension cord unless it is absolutely necessary Using the wrong, damaged or improperly wired extension cord poses a risk of fire and electric shock. If an extension cord must be used, plug the charger into a properly wired 16 gauge or larger extension cord with the female plug matching the male plug on the charger. Make sure that the extension cord is in good electrical condition.
- Charger is rated for 120 volt AC only The charger must be plugged into an appropriate receptacle.
- Use only recommended attachments Use of an attachment not recommended or sold by WEN Products may result in risk of fire, electric shock or personal injury.
- Unplug charger when not in use Make sure to remove battery packs from unplugged chargers.

WARNING! To reduce the risk of electric shock, always unplug the charger before performing any cleaning or maintenance. Do not allow water to flow into the charger. Use a Ground Fault Circuit Interrupter (GFCI) to reduce shock hazards.

- **Do not burn or incinerate battery packs** Battery packs may explode, causing personal injury or damage. Toxic fumes and materials are created when battery packs are burned.
- Do not crush, drop or damage battery packs Do not use the battery pack or charger if they have sustained a sharp blow, been dropped, run over or have been damaged in any way (i.e. pierced with a nail, hit with a hammer, stepped on, etc.).
- **Do not disassemble** Incorrect reassembly may pose a serious risk of electric shock, fire or exposure to toxic battery chemicals. If the battery or charger are damaged, call WEN customer service at **1-847-429-9263** for assistance.
- Battery chemicals cause serious burns Never let a damaged battery pack contact the skin, eyes or mouth. If a damaged battery pack leaks battery chemicals, use rubber or neoprene gloves to safely dispose of it. If skin is exposed to battery fluids, wash the affected area with soap and water and rinse with vinegar. If eyes are exposed to battery chemicals, immediately flush with water for 20 minutes and seek medical attention. Remove and dispose of contaminated clothing.
- Store your battery pack and charger in a cool, dry place Do not store the battery pack or charger where temperatures may exceed 104 °F, such as in direct sunlight or inside a vehicle or metal building during the summer.
- **Do not short circuit** A battery pack will short circuit if a metal object makes a connection between the positive and negative contacts on the battery pack. Do not place a battery pack near anything that may cause a short circuit, such as paper clips, coins, keys, screws, nails and other metallic objects. A short-circuited battery pack poses a risk of fire and severe personal injury.

### **BATTERY & CHARGER SAFETY WARNINGS**

### **ABOUT THE BATTERY**

- 1. The battery pack has to be charged completely before you use the tool for the first time.
- 2. For optimum battery performance, avoid low discharge cycles by charging the battery pack frequently.
- 3. Lithium-ion batteries are subject to a natural aging process. The battery pack must be replaced at the latest when its capacity falls to just 80% of its capacity when new. Weakened cells in an aged battery pack are no longer capable of meeting the high power requirements needed for the proper operation of your tool, and therefore pose a safety risk.
- 4. Do not throw battery packs into an open fire as this poses a risk of explosion. Do not ignite the battery pack or expose it to fire.
- 5. Do not exhaustively discharge batteries. Exhaustive discharge will damage the battery cells. The most common cause of exhaustive discharge is lengthy storage or non-use of partially discharged batteries. Stop working as soon as the performance of the battery falls noticeably or the electronic protection system triggers. Place the battery pack in storage only after it has been fully charged.
- 6. Protect batteries and the tool from overloads. Overloads will quickly result in overheating and cell damage inside the battery housing even if this overheating is not apparent externally.
- 7. Avoid damage and shocks. Immediately replace batteries that have been dropped from a height of more than one meter or those that have been exposed to violent shocks, even if the housing of the battery pack appears to be undamaged. The battery cells inside the battery may have suffered serious damage. In such instances, please read the waste disposal information for proper battery disposal.
- 8. If the battery pack suffers overloading and overheating, the integrated protective cutoff will switch off the equipment for safety reasons.
- 9. Use only original battery packs. The use of other batteries poses a fire risk and may result in injuries or an explosion.

#### **ABOUT THE CHARGER**

Protect battery charger and cord from damage. Keep the charger and its cord away from heat, oil and sharp edges.

Electrical plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded appliances. Unmodified plugs and matching outlets will reduce the risk of electric shock.

Keep the battery charger, battery pack(s), and the cordless tool out of the reach of children.

Do not use the supplied battery charger to charge other cordless tools.

During periods of heavy use, the battery pack will become warm. Allow the battery pack to cool to room temperature before inserting it into the charger to recharge.

Do not overcharge batteries. Do not exceed the maximum charging times. These charging times only apply to discharged batteries. Frequent insertion of a charged or partially charged battery pack will result in overcharging and cell damage. Do not leave battery in the charger for days on end.

Never use or charge a battery if you suspect that it has been more than 12 months since last time they were charged. There is a high probability that the battery pack has already suffered dangerous damage (exhaustive discharge).

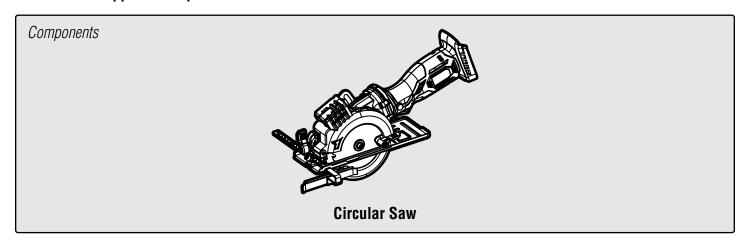
Do not use batteries that have been exposed to heat during the charging process, as the battery cells may have suffered dangerous damage.

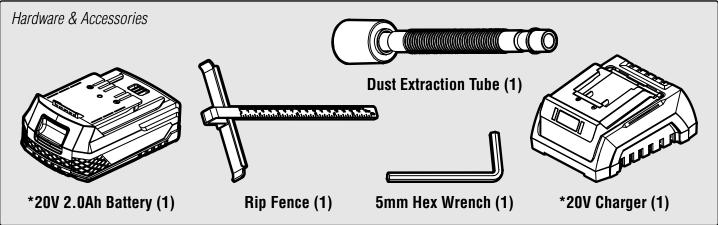
Do not use batteries that have suffered curvature or deformation during the charging process or those that exhibit other atypical symptoms (gassing, hissing, cracking, etc.)

### **UNPACKING & PACKING LIST**

### UNPACKING

With the help of a friend or trustworthy foe, such as one of your in-laws, carefully remove the circular saw from the packaging and place it on a sturdy, flat surface. Make sure to take out all contents and accessories. Do not discard the packaging until everything is removed. Check the packing list below to make sure you have all of the parts and accessories. If any part is missing or broken, please contact customer service at **1-847-429-9263** (M-F 8-5 CST), or email **techsupport@wenproducts.com**.



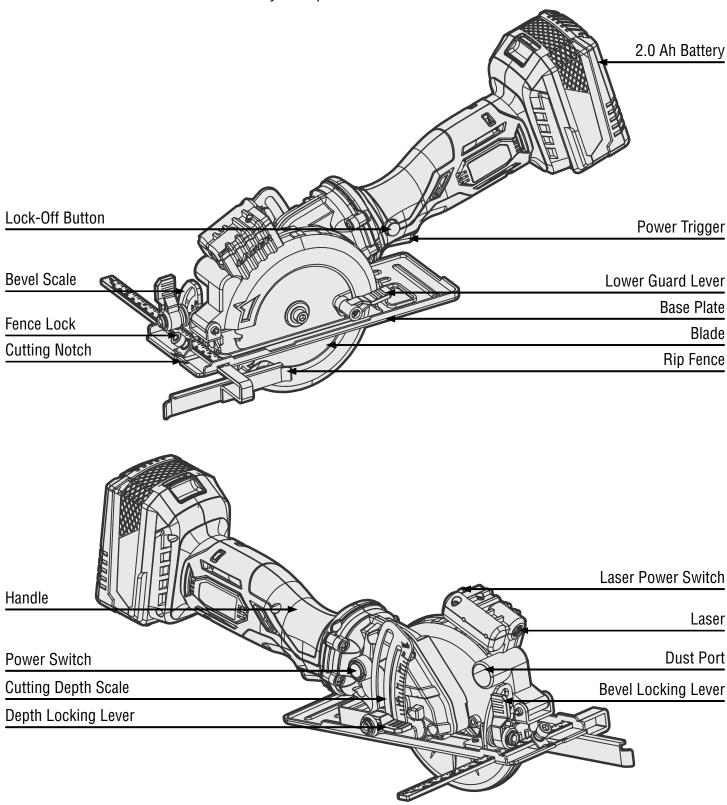


\*NOTE: Battery and charger only included with model 20604. 20604BT does not include a battery or charger.

### KNOW YOUR CIRCULAR SAW

### **TOOL PURPOSE**

Easily make miter cuts and rough cuts on large sheets of material with your WEN Circular Saw. Refer to the following diagrams to become familiarized with all the parts and controls of your circular saw. The components will be referred to later in the manual for assembly and operation instructions.



**WARNING!** To avoid injury from accidental startups, be sure that the tool is switched OFF and the battery is removed from the tool before inspecting the unit, making adjustments, or changing accessories.

### INSTALLING/REPLACING THE SAW BLADE

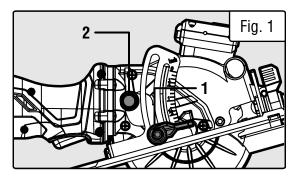
Use saw blades with 4-1/2 inch (115mm) diameter and 3/8 inch (9.53mm) arbor. Do not use a blade that does not match the diameter or arbor size. The pre-installed blade has a body that is that is 1.0mm thick and teeth that are 1.6mm thick. Do not use a blade that is thicker than the included blades, as this will prevent the arbor screw from properly securing the blade. Replacement saw blades (model BL0424) can be purchased from wenproducts.com.

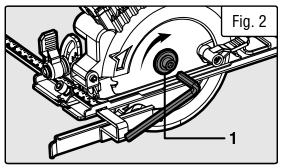
Blade Model	Blade Type	Suitable Materials	KERF	Max Speed
BL0424	TCT Wood-Cutting Blade (24 Teeth)	Softwood, hardwood, and plastics	1.6mm	5,000 RPM

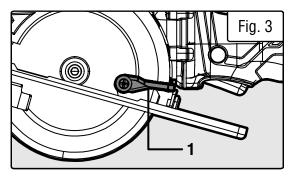
**WARNING!** Wear gloves when handling saw blades to prevent injuries in case the blade teeth are accidentally contacted.

- 1. Make sure that the circular saw is switched OFF and the battery is removed from the terminal.
- 2. Loosen the depth locking lever (Fig. 1 1). Adjust the saw to its deepest depth of cut, then tighten the lever.
- 3. Press down the spindle lock (Fig. 1 2) to prevent the blade from spinning. With the spindle lock pressed down, use the included hex wrench to loosen the arbor screw (Fig. 2 1) by turning it clockwise.
- 4. Remove the arbor screw, washer and outer flange.
- 5. Use the lower blade guard lever (Fig. 3 1) to move the lower blade guard out of the way. Carefully remove the existing blade.
- 6. Slide the new saw blade onto the spindle. Make sure the blade teeth beneath the base plate are pointing forward and the arrows printed on the blade point in the clockwise direction.
- 7. Replace the outer flange. Press the spindle lock and replace the arbor screw and washer. Fully tighten the arbor screw by turning it counterclockwise with the hex wrench.

**NOTE**: The quality of the cut depends on the condition of the saw blade. Never use a dull, rusty, or damaged blade. Before operation, check the condition of the blade and replace if the blade is worn-out or damaged.





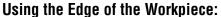


### SETTING THE DEPTH OF CUT

Before making a cut, it is important to set the correct cutting depth. The saw's maximum cutting depth at 90° is 1-11/16 inch (43mm) and at 45° it is 1-1/8" (28mm). We recommend adjusting the cutting depth about 1/16 inch (2mm) deeper than the thickness of the material. To adjust the cutting depth, you can either refer to the depth scale, or the edge of the workpiece.

### **Using the Depth Scale:**

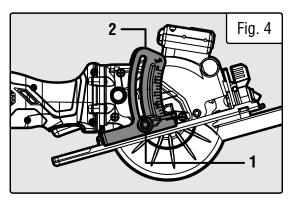
- 1. Make sure the saw is OFF and the battery is removed from the battery terminal.
- 2. Flip up the depth lock lever (Fig. 4 1) to loosen it.
- 3. Slide the depth lock lever so that the arrow points to your desired cutting depth indicated on the depth scale (Fig. 4 2).
- 4. Press down on the depth lock lever to securely lock the depth setting.

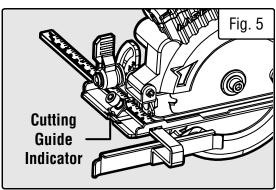


- 1. Make sure the saw is OFF and the battery is removed from the battery terminal.
- 2. Flip up the depth lock lever to loosen it and slide the lever to all the way to the top of the slot.
- 3. Place the base plate onto the workpiece with the saw blade positioned against the left edge of the workpiece.
- 4. Lower the blade to your desired cutting depth by observing how deep the blade will cut relative to the top face of the workpiece.
- 5. Holding the saw in position at a constant depth, slide the depth lock lever to the left until it is flush against the edge of the inner blade guard.
- 6. Press down on the depth lock lever to securely lock the depth setting.

#### **CUTTING GUIDE INDICATOR**

The cutting guide indicator (Fig. 5 - 1) can be found at the front of the saw base. This guide helps to indicate where the cut will be occurring. Before cutting, draw a guideline on the workpiece and follow the guideline with the cutting guide to create more accurate cuts.





### **USING THE LASER**

The laser (Fig. 6 - 1) located on the top of your saw can also be used to indicate the line of cut. Switch the laser ON (Fig. 6 - 2) and align the laser line with your cutting guideline.

**WARNING!** Do not look directly into the laser beam with unprotected eyes. See page 8 for important rules regarding laser safety.

#### INSTALLING THE RIP FENCE

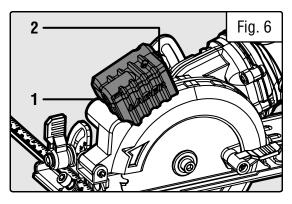
When making a rip cut along a straight edge, it is recommended to clamp a straight edge to the workpiece or use the included rip fence. **To install the rip fence onto your saw:** 

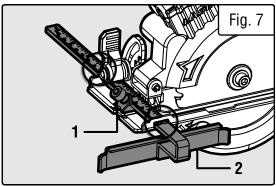
- 1. Loosen the fence lock screw (Fig. 7 1) on the front of the base plate.
- 2. Insert the rip fence (Fig. 7 2) from the left side of the tool through the slots (Fig. 7 Circles) on the base plate.
- 3. Adjust the rip fence to the desired width of cut indicated by the cutting guide indicator and the markings on the rip fence.
- 4. Tighten the fence lock screw to secure the rip fence in place.

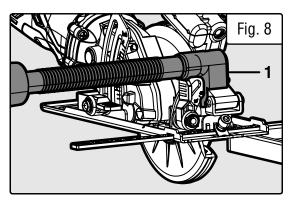
### **CONNECTING THE DUST EXTRACTION HOSE**

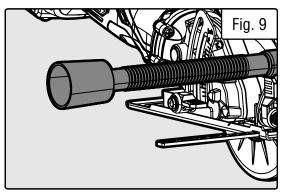
Dust and chips will be produced during operation that can harm your health and create a mess in your work area. It is recommended to extract the sawdust by connecting your tool to a dust extraction system (not included) using the included dust extraction hose.

- 1. Make sure the saw is OFF and the battery is removed from the battery terminal.
- 2. Attach the dust extraction hose to the dust port (Fig. 8 1) on the right side of your tool by pushing the hose straight onto the port.
- 3. Connect the rubber port end of the hose to a suitable dust extraction system. The outer diameter of the hose rubber port is a taper from 1.35 to 1.5 inches (Fig. 9).
- 4. Turn on the dust collector before cutting to keep saw dust away from your lungs and the work area.





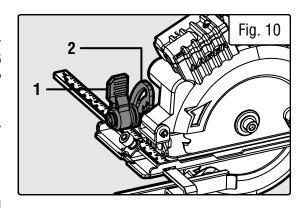




### ADJUSTING THE BLADE BEVEL

Bevel your mini circular saw blade from 45° to 90° to cut your work-piece on an angle. The saw's maximum cutting depth at 90° is 1-11/16 inch (43mm) and at 45° it is 1-1/8" (28mm). Be sure to set your saw to the proper depth for the angle you are using.

- 1. Make sure the saw is OFF and the battery is removed from the battery terminal.
- 2. Flip up the bevel locking knob (Fig. 10 1) to loosen it.
- 3. Adjust the bevel scale (Fig. 10 2) to your desired angle between 45° to 90°. Your mini circular saw is pre-set to 90°, which is a perpendicular, straight cut through your workpiece.
- 4. Press down on the bevel locking knob to securely tighten the bevel setting.



### **OPERATION**

### PREPARING FOR OPERATION

- 1. Prepare the work space and connect your saw to a dust extraction system.
- 2. Ensure that the saw blade is sharp. Set the correct depth of cut for your workpiece.
- 3. Draw a guideline along the desired path of the cut on the workpiece surface.
- 4. Place the workpiece with the "good" side down (the saw blade cuts upward through the material, and may "blow out" the top side) on a flat supporting surface. Secure the workpiece in place with clamps or vises (not included). To prevent cutting into the support surface, place sufficient scrap material under the workpiece.
- 5. Wear safety glasses, a dust mask, and hearing protection. Do not wear loose clothing or jewelry, and tie back long hair to avoid getting anything caught in the tool.

**WARNING!** To prevent serious injury, make sure all the instructions have been read and understood before operating this tool. Check that the power switch mechanism works properly before installing the battery.

#### OPERATING THE SAW

- 1. Hold the tool firmly in your right hand with your thumb on the lock-off button and your fingers on the power switch. Stand to the left side of the saw. (Do the opposite if you are left-handed).
- 2. Set the front portion of the base plate onto the workpiece. Position the base plate with its right side resting on the larger section of board that DOES NOT fall off when being cut. Align the cutting guide indicator with the cutting guideline marked on the workpiece. Ensure that the blade is NOT in contact with the workpiece.
- 3. Pull the power trigger back with your fingers to turn on the saw. Wait until the blade has reached full speed (approximately 3 seconds).
- 4. Make sure that the base plate is stable on the workpiece; this is very important especially during the start or finish of a cut. Push the lock-off button with your thumb to lower the saw blade. Slowly push the blade into the workpiece.
- 5. Gently push the saw forward along the cutting guideline while keeping the base plate flat against the workpiece surface. Do not force the saw forward too quickly in order to try and hurry up the process. Let the tool work at its own pace. Never pull the saw backwards while cutting.

**WARNING!** DO NOT start the saw while the blade is in contact with the workpiece, this may lead to kickback.

6. Let the saw blade run through the entire cut. Release the power switch and lock-off button and allow the blade to come to a full stop before lifting the saw off the work surface. Once you've completed operation, turn the saw OFF and remove the battery from the battery terminal.

**WARNING!** DO NOT raise the saw while it is running, this can expose you to the blade and lead to an injury. Allow the blade to completely stop before lifting it from the work surface.

### MAINTENANCE

**WARNING!** To avoid accidents, turn the tool OFF and remove the battery from the battery terminal before cleaning, adjusting, or performing any maintenance or lubrication work.

**WARNING!** Any attempt to repair or replace electrical parts on this tool may be hazardous. Servicing of the tool must be performed by a qualified technician. When servicing, use only identical WEN replacement parts. Use of other parts may be hazardous or induce product failure.

#### **ROUTINE INSPECTION**

Before each use, inspect the general condition of the tool. If any of these following conditions exist, do not use until parts are replaced or the sharpener is properly repaired.

#### Check for:

- Loose hardware or improper mounting
- · Misalignment or binding of moving parts
- Damaged battery or battery terminal
- Cracked or broken parts
- Any other condition that may affect its safe operation

#### **CLEANING & STORAGE**

- 1. After every operation, use a vacuum to remove dust and chips from the tool surfaces, motor housing and work area. Keep the ventilation openings free from dust and debris to prevent the motor from overheating.
- 2. Wipe the tool surfaces clean with a soft cloth or brush. Make sure water does not get into the tool.
- 3. Periodically, remove the saw blade and vacuum out any dust that has accumulated in the blade housing.

**CAUTION!** Most plastics are susceptible to damage from various types of commercial solvents. Do not use any solvents or cleaning products that could damage the plastic parts. Some of these include but are not limited to: gasoline, carbon tetrachloride, chlorinated cleaning solvents, and household detergents that contain ammonia.

4. Store the tool in a clean and dry place away from the reach of children.

### LUBRICATION

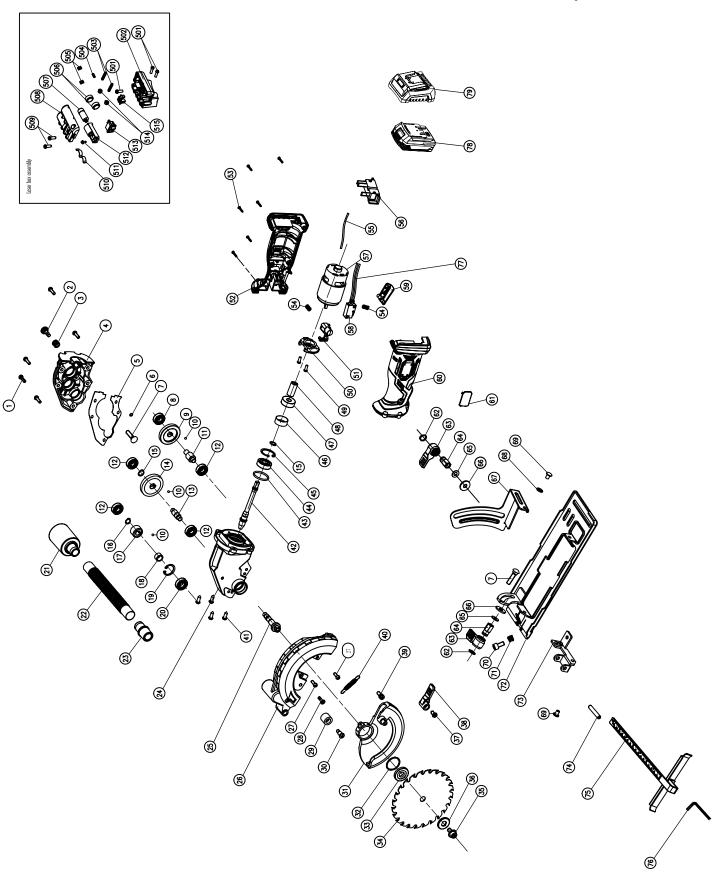
All bearings and gears are sealed and permanently lubricated. No further lubrication is required.

#### PRODUCT DISPOSAL

Used power tools should not be disposed of together with household waste. This product contains electronic components that should be recycled. Please take this product to your local recycling facility for responsible disposal and to minimize its environmental impact.

### **EXPLODED VIEW & PARTS LIST**

**NOTE:** Not all parts may be available for purchase. Parts and accessories that wear down over the course of normal use are not covered under the warranty.



## **EXPLODED VIEW & PARTS LIST**

NO	DADT NO	DECODIBIION	OTV
NO.	PART NO.	DESCRIPTION	QTY.
1	20604-001	Screw With Washer, M4x14	5
2	20604-002	Spindle Lock Button	1
3	20604-003	Spindle Lock Spring	1
4	20604-004	Gearbox Cover	1
5	20604-005	Gearbox Gasket	1
6	20604-006	Baffle, 4mm	1
7	20604-007	Carriage Bolt, M6x26	2
8	20604-008	Bearing, 698	1
9	20604-009	Spiral Bevel Gear	1
10	20604-010	Ball Bearing, 3mm	3
11	20604-011	Gear Shaft	1
12	20604-012	Bearing, 607-2Z	4
13	20604-013	Intermediate Shaft	1
14	20604-014	Large Gear	1
15	20604-015	O-ring, 9mm	2
16	20604-016	C-Clip, 8mm	1
17	20604-017	Pinion	1
18	20604-018	Spacer Sleeve	1
19	20604-019	C-Clip, 20mm	1
20	20604-020	Bearing, 699	1
21			
22	20604-021ASM	Dust Hose Assembly	1
23			
24	20604-024	Gear Housing, Left	1
25	20604-025	Blade Arbor	1
26	20604-026	Fixed Blade Guard	1
27	20604-027	Screw With Washer, M4x12	2
28	20604-028	Phillips-head Screw, M4x6	1
29	20604-029	Bushing	1
30	20604-030	Bushing Screw, M5	1
31	20604-031	Blade Cover	1
32	20604-032	Baffle	1
33	20604-033	Inner Flange	1
34	20604-034	Blade, TCT, 115 mm	1
35	20604-035	Blade Arbor Screw, M6x14, LH	1
36	20604-036	Outer Flange	1
37	20604-037	Self-tapping Screw, ST4x12	1
38	20604-038	Blade Cover Lever	1
39	20604-039	Reset Spring Screw, M5	1
40	20604-040	Reset Spring	1
41	20604-041	Self-Tapping Screw, ST4.2×14	4

NO	DADT NO	DECODIDATION	ΛΤV
NO.	PART NO.	DESCRIPTION	QTY.
42	20604-042	Connecting Rod	1
43	20604-043	0 ring, 24 x 27.8 x 1.9	1
44	20604-044	Bearing, 609-2Z	1
45	20604-045	C-Clip, 2mm	1
46	20604-046	Bearing Sleeve	1
47	20604-047	Bearing, 606-2Z	1
48	20604-048	Adapter Sleeve	1
49	20604-049	Screw With Washer, M4x14	2
50	20604-050	Motor Mount	1
51	20604-051	Switch Cap	1
52	20604-052	Right Housing	1
53	20604-053	Self-Tapping Screw, ST2.9x14	6
54	20604-054	Self-locking Spring	2
55	20604-055	Wiring Harness 1	1
56	20604-056	Terminal	1
57	20604-057	DC Motor, 775	1
58	20604-058	Switch	1
59	20604-059	Switch Trigger	1
60	20604-060	Left Housing	1
61	20604-061	Left Housing Cover	1
62	20604-062	C-clip, 10mm	2
63	20604-063	Depth Locking Lever	2
64	20604-064	M6 Locking Pin	2
65	20604-065	Belleville Spring	2
66	20604-066	M6 Locking Pin	2
67	20604-067	Depth Bracket	1
68	20604-068	Flat Washer	1
69	20604-069	Rivet	2
70	20604-070	Socket Head Cap Screw, M6x12	1
71	20604-071	Rip Fence Locking Spring	1
72	20604-072	Base Plate	1
73	20604-073	Bevel Bracket	1
74	20604-074	Cylindrical Spring Pin 6x35	1
75	20604-075	Rip Fence	1
76	20604-076	Hex Wrench, 5mm	1
77	20604-077	Wiring Harness 2	1
78	20202	20V 2Ah Battery	1
79	20200C	20V 2A Charger	1
500	20604-500ASM	Laser Module Assembly	1
501	N/A	Phillips-head Screw with Flange, M3x8	3

# EXPLODED VIEW & PARTS LIST

NO.	PART NO.	DESCRIPTION	QTY.
502	N/A	Laser Base	1
503	N/A	Set Screw, M3x20	2
504	N/A	Spring	1
505	N/A	Spring Base	2
506	N/A	1.5V Battery, LR44	2
507	N/A	Laser	1
508	N/A	Laser Cover	1

NO.	PART NO.	DESCRIPTION	QTY.
509	N/A	Self-tapping Screw, ST2.9x14	2
510	N/A	Limiting Spring	1
511	N/A	Self-tapping Screw, ST3x8	1
512	N/A	Laser Housing	1
513	N/A	Rocker Switch	1
514	N/A	Lock Nut, M3	2
515	N/A	Nut Bracket	1

**NOTE:** Not all parts may be available for purchase. Parts and accessories that wear down over the course of normal use are not covered under the warranty.

### WARRANTY STATEMENT

WEN Products is committed to building tools that are dependable for years. Our warranties are consistent with this commitment and our dedication to quality.

#### LIMITED WARRANTY OF WEN PRODUCTS FOR HOME USE

GREAT LAKES TECHNOLOGIES, LLC ("Seller") warrants to the original purchaser only, that all WEN consumer power tools will be free from defects in material or workmanship during personal use for a period of two (2) years from date of purchase or 500 hours of use; whichever comes first. Ninety days for all WEN products if the tool is used for professional or commercial use. Purchaser has 30 days from the date of purchase to report missing or damaged parts.

SELLER'S SOLE OBLIGATION AND YOUR EXCLUSIVE REMEDY under this Limited Warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the replacement of parts, without charge, which are defective in material or workmanship and which have not been subjected to misuse, alteration, careless handling, misrepair, abuse, neglect, normal wear and tear, improper maintenance, or other conditions adversely affecting the Product or the component of the Product, whether by accident or intentionally, by persons other than Seller. To make a claim under this Limited Warranty, you must make sure to keep a copy of your proof of purchase that clearly defines the Date of Purchase (month and year) and the Place of Purchase. Place of Purchase must be a direct vendor of Great Lakes Technologies, LLC. Purchasing through third party vendors, including but not limited to garage sales, pawn shops, resale shops, or any other secondhand merchant, voids the warranty included with this product. Contact techsupport@wenproducts.com or 1-847-429-9263 with the following information to make arrangements: your shipping address, phone number, serial number, required part numbers, and proof of purchase. Damaged or defective parts and products may need to be sent to WEN before the replacements can be shipped out.

Upon the confirmation of a WEN representative, your product may qualify for repairs and service work. When returning a product for warranty service, the shipping charges must be prepaid by the purchaser. The product must be shipped in its original container (or an equivalent), properly packed to withstand the hazards of shipment. The product must be fully insured with a copy of the proof of purchase enclosed. There must also be a description of the problem in order to help our repairs department diagnose and fix the issue. Repairs will be made and the product will be returned and shipped back to the purchaser at no charge for addresses within the contiguous United States.

THIS LIMITED WARRANTY DOES NOT APPLY TO ITEMS THAT WEAR OUT FROM REGULAR USAGE OVER TIME, INCLUDING BELTS, BRUSHES, BLADES, BATTERIES, ETC. ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO TWO (2) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IN NO EVENT SHALL SELLER BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING BUT NOT LIMITED TO LIABILITY FOR LOSS OF PROFITS) ARISING FROM THE SALE OR USE OF THIS PRODUCT. SOME STATES IN THE U.S. AND SOME CANADIAN PROVINCES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE IN THE U.S., PROVINCE TO PROVINCE IN CANADA AND FROM COUNTRY TO COUNTRY.

THIS LIMITED WARRANTY APPLIES ONLY TO ITEMS SOLD WITHIN THE UNITED STATES OF AMERICA, CANADA AND THE COMMONWEALTH OF PUERTO RICO. FOR WARRANTY COVERAGE WITHIN OTHER COUNTRIES, CONTACT THE WEN CUSTOMER SUPPORT LINE. FOR WARRANTY PARTS OR PRODUCTS REPAIRED UNDER WARRANTY SHIPPING TO ADDRESSES OUTSIDE OF THE CONTIGUOUS UNITED STATES, ADDITIONAL SHIPPING CHARGES MAY APPLY.

