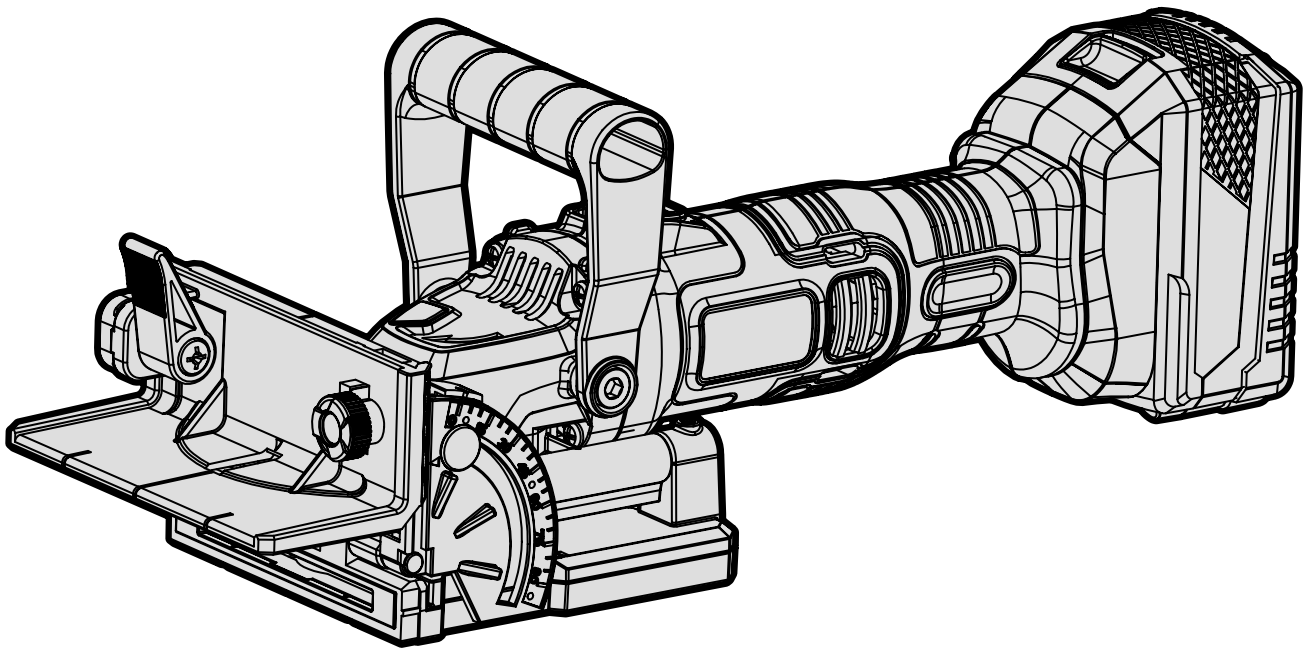




MODEL 20648, 20648BT

20V MAX CORDLESS BISCUIT JOINER

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 your tool properly and for its intended purpose, you will enjoy years of safe, reliable service.

For replacement parts and the most up-to-date instruction manuals, visit ***WENPRODUCTS.COM***

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

20V 2.0Ah Max Battery (Model 20202)

20V 4.0Ah Max Battery (Model 20204)

20V 5.0Ah Max Battery (Model 20205)


20V 2A Charger (Model 20200C)

20V 5A Quick Charger (Model 20201Q)

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 Biscuit Joiner. 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	20648, 20648BT
Included Battery*	4.0Ah Battery (Model 20204)*
Included Charger*	20V, 2A DC (Model 20200C)*
No-Load Speed	8,500 RPM
Blade Specifications	3.94 in. x 0.15 in. (100mm x 3.8mm), 6T
Blade Part Number	JN8504-052
Cutting Depth Stops	#0 (15mm), #10 (19mm), #20 (23mm), S (13mm), D (14.7mm), M (20mm)
Included Biscuit Specs	#0, #10, #20
Product Dimensions	12.375 in. x 5.5 in. x 6.25 in.
Product Weight	5.92 Pounds

Battery Models	All WEN 20V MAX Batteries**
Charger Models	All WEN 20V MAX Chargers

***NOTE:** Battery and charger only included with model 20648. Model 20648BT 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.

BISCUIT JOINER SAFETY WARNINGS

 **WARNING!** Do not let comfort or familiarity with the product replace strict adherence to product safety rules. Failure to follow the safety instructions may result in serious personal injury.

BISCUIT JOINER SAFETY

1. TOOL PURPOSE

This biscuit joiner is designed to create appropriately sized slots in wood to allow easy joining with biscuits. 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. 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.

3. 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 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.

4. 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.

5. STANDING POSITION

Make sure to stand in a stable and sturdy stance with a tight grip on the joiner. Kickback could cause the joiner to jump when in use.

6. STARTING THE TOOL

Always start the joiner 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.

7. 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.

8. 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.

9. TURNING OFF THE TOOL

The blade coasts after the joiner is turned off. Wait until the blade comes to a full stop before reaching for loose materials or setting the tool down.

10. REPLACING THE JOINER 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 joiner will run eccentrically, causing a loss of control.


11. MAKING ADJUSTMENTS

Always turn off and unplug the joiner before making adjustments or changing attachments. Accidental start-ups may occur if the saw is plugged in 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 machine is unplugged when doing any cleaning, assembly, setup operations, or when not in use.

12. REPLACEMENTS

Should any component of your joiner be missing / damaged or fail in any way, shut off the switch and remove the plug from power supply outlet. Replace the missing, damaged, or failed parts using only identical replacement parts before resuming operation.

BISCUIT JOINER SAFETY WARNINGS

 **WARNING!** Do not let comfort or familiarity with the product replace strict adherence to product safety rules. Failure to follow the safety instructions may result in serious personal injury.

REDUCING KICKBACK

Kickback is a sudden reaction to a pinched, bound or misaligned joiner blade, causing an uncontrolled joiner 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 joiner 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 joiner motionless in the material until the blade comes to a complete stop. Never attempt to remove the joiner from the workpiece or pull the joiner backward while the blade is in motion or kickback may occur.
- 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 angle 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.

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.

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.

AMPERAGE	REQUIRED GAUGE FOR EXTENSION CORDS			
	25 ft.	50 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.)

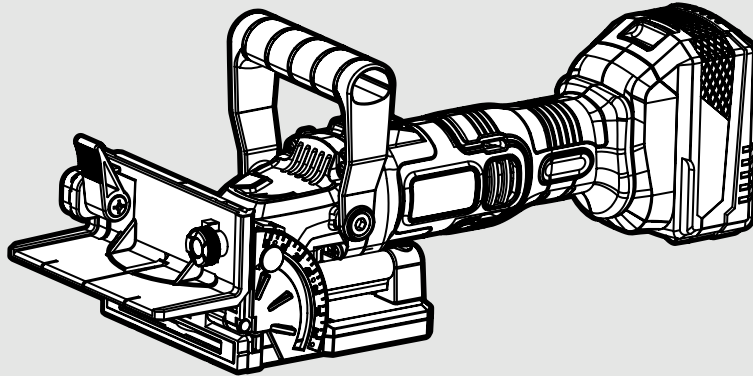
UNPACKING & PACKING LIST

UNPACKING

With the help of a friend or trustworthy foe, such as one of your in-laws, carefully remove the biscuit joiner 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.

PACKING LIST

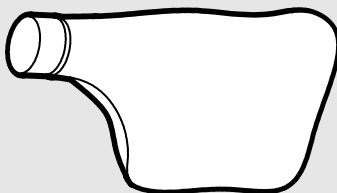
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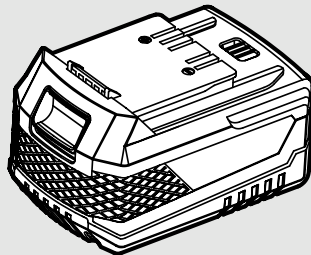
Biscuit Joiner

Accessories

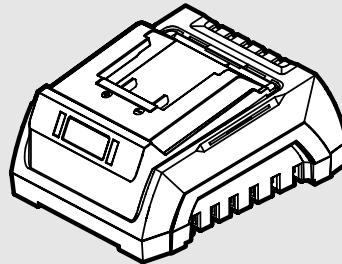
Not Pictured: Carrying Case (1)



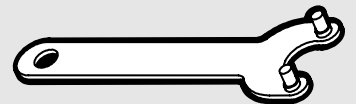
Dust Bag (1)



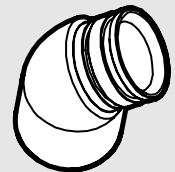
20V Battery (1)*



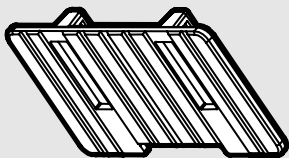
20V Charger (1)*



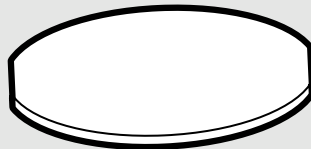
Spanner Wrench (1)



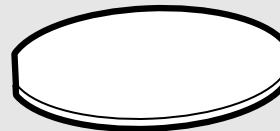
Dust Chute Adaptor (1)



Attachment Plate (1)



#20 Biscuits (24)**



#10 Biscuits (16)**



#0 Biscuits (10)**

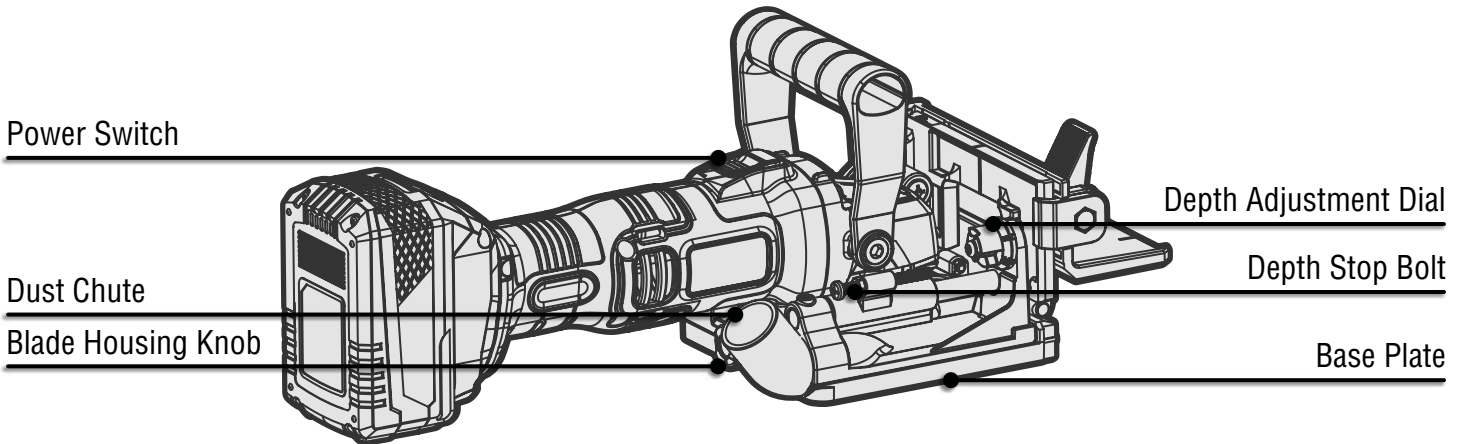
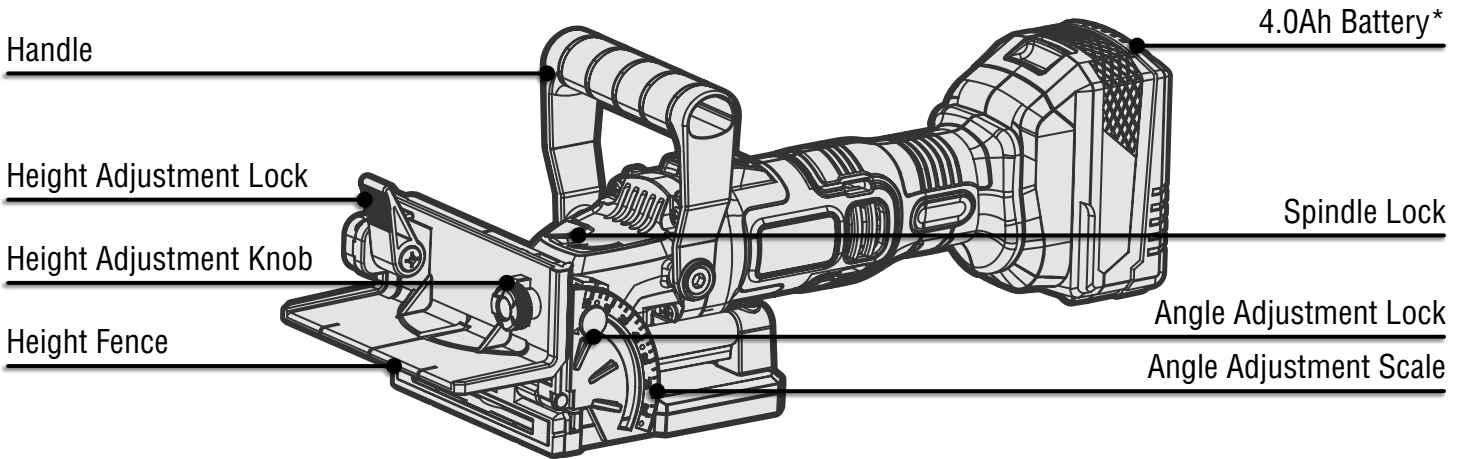
*Battery and charger only included with model 20648. 20648BT does not include a battery or a charger.

**Gravy not included.

KNOW YOUR BISCUIT JOINER

TOOL PURPOSE

Your WEN Biscuit Joiner is designed to create appropriately sized slots in wood to allow easy joining with biscuits. Refer to the following diagrams to become familiarized with all the parts and controls of your biscuit joiner. The components will be referred to later in the manual for assembly and operation instructions.



*Only included with model 20648.

ASSEMBLY & ADJUSTMENTS

⚠ WARNING! To avoid injury from accidental startups, make sure that the power switch is OFF and the battery is removed from the biscuit joiner.

SETTING THE CUTTING DEPTH

The depth adjustment dial helps to control the depth of cut for different size biscuits. The dial has depths that correlate to biscuit sizes #0, #10, and #20 (see page 16 for detailed biscuit information) along with settings “S” (Simplex, 13mm), “D” (Duplex, 14.7mm), and “M” (Max Depth, 20mm).

It is recommended to calibrate the depth of cut initially and every few months, depending on frequency of use. To calibrate the depth of cut, carry out the following steps:

1. Rotate the depth adjustment dial (Fig. 1 - 1) to the desired setting that correlates to the biscuit size that will be used.
2. Make a test cut in a piece of scrap wood. Try to fit the correlated biscuit into the slot and determine if the slot is deep enough.
3. If the depth of cut is incorrect, loosen the depth stop nut on the depth bolt (Fig. 2 - 1) and thread the bolt to the desired depth. Tightening the depth bolt will make the cut shallower, whereas loosening the bolt will make the cut deeper.
4. Recheck the depth of cut by repeating step 2. If the depth of cut is accurate, tighten the depth stop nut against the stop to secure the position of the depth bolt.

SETTING THE CUTTING ANGLE

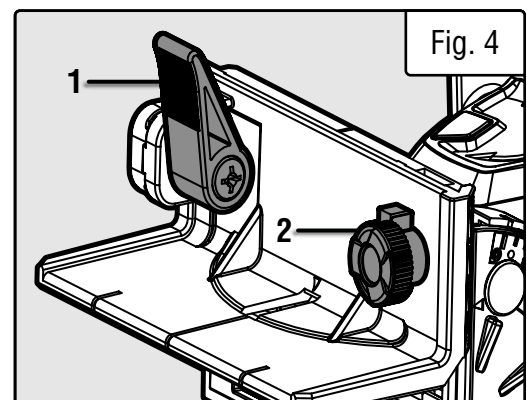
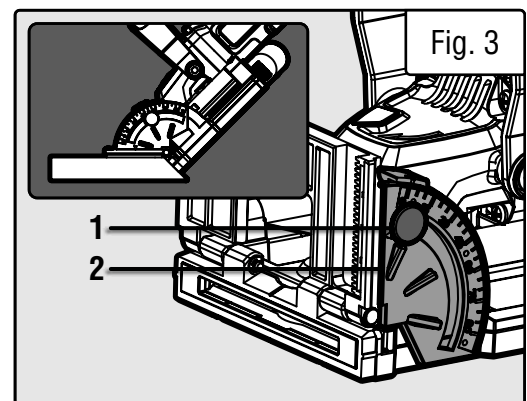
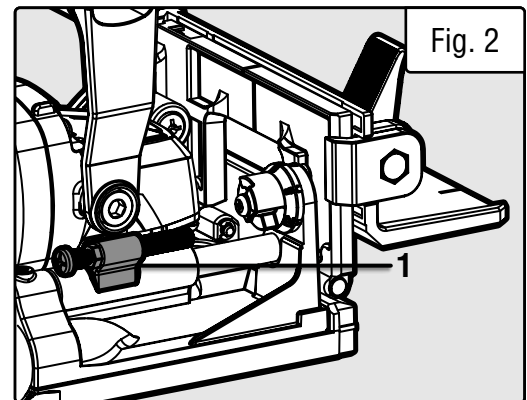
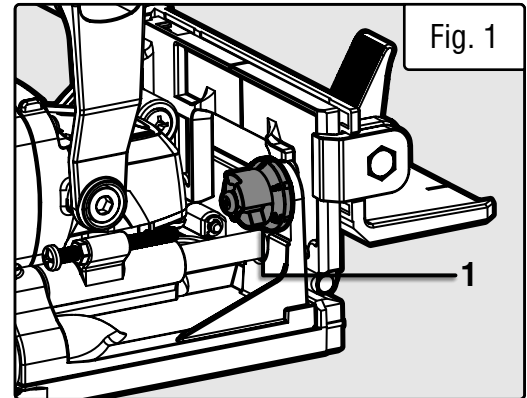
The angle fence can be adjusted to account for bevel angles on the workpiece.

1. Unlock the height adjustment lock (Fig. 4 - 1) and turn the height adjustment knob (Fig. 4 - 2) clockwise to raise the height fence and remove it from the angle fence.
2. Unlock the angle adjustment lock (Fig. 3 - 1).
3. Set the bevel angle using the angle adjustment scale (Fig. 3 - 2).
4. Once you've set your desired cutting angle, lock the height adjustment lock in place.

SETTING THE CUTTING HEIGHT

The height fence allows the biscuit slot to be cut at different heights.

1. Unlock the height adjustment lock (Fig. 4 - 1).
2. Set your desired height by turning the height adjustment knob (Fig. 4 - 2) clockwise (up) or counterclockwise (down). The depth scale to the left of the height adjustment knob will indicate the exact height.
3. Once you've set your desired height, lock the height adjustment lock. Check that the height fence is secure before beginning operation.

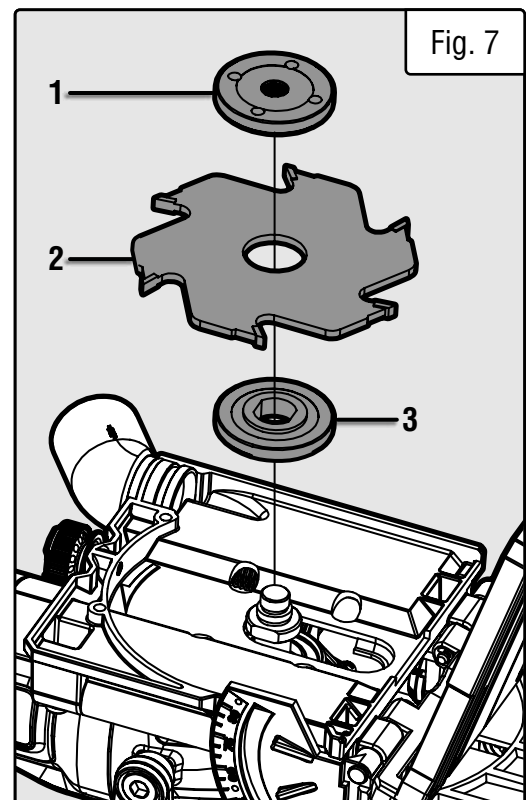
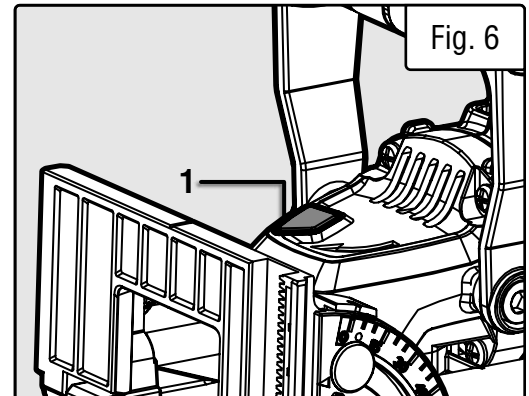
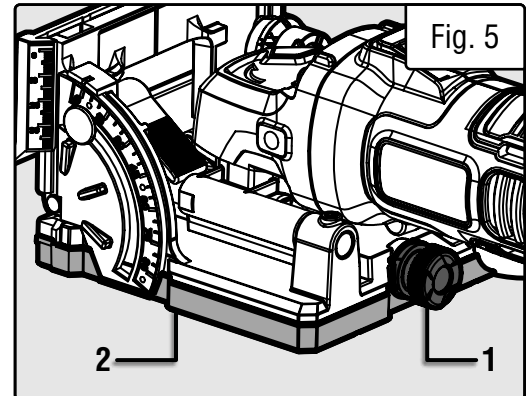


ASSEMBLY & ADJUSTMENTS

⚠ WARNING! To avoid injury from accidental startups, make sure that the power switch is OFF and the battery is removed from the biscuit joiner.

CHANGING THE BLADE

1. Loosen the blade housing knob (Fig. 5 - 1) on the bottom on the biscuit joiner and swing open the base plate (Fig. 5 - 2).
2. Press the spindle lock button (Fig. 6 - 1) and keep it depressed while removing the blade.
3. Insert the included spanner wrench into the outer flange (Fig. 7 - 1) and loosen the blade by turning the outer flange counterclockwise. Set the outer flange aside.
4. Carefully remove the blade (Fig. 7 - 2) from the biscuit joiner. Be cautious not to misplace the inner flange (Fig. 7 - 3).
5. Reassemble the inner flange, new blade, and outer flange. Make sure that the rotation of the blade is oriented in the correct direction as noted by the arrow on the blade housing. Tighten the outer flange with the spanner wrench by turning it clockwise. Make sure that the outer flange is secure before beginning operation.
6. Close the base plate and tighten the blade housing knob. Make sure that the blade housing knob is secure before beginning operation.



OPERATION

POWER SWITCH

1. To turn the biscuit joiner ON, press down on the bottom of the power switch (Fig. 8 - 1) and slide it forward until it locks in place. The biscuit joiner will run continuously until you manually switch it OFF.
2. To turn the biscuit joiner OFF, press the bottom part of power switch. The power switch will move back to the OFF position and the biscuit joiner will stop. Wait for the biscuit joiner to come to a complete stop before setting it down.

CUTTING OPERATION

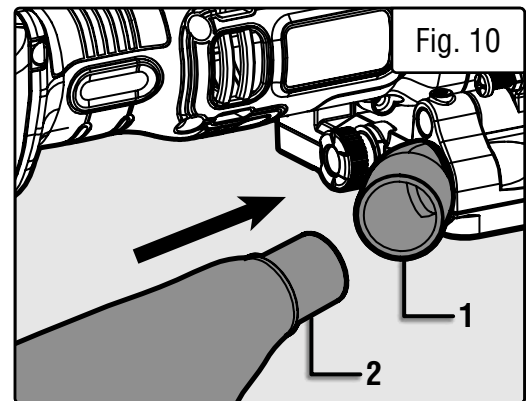
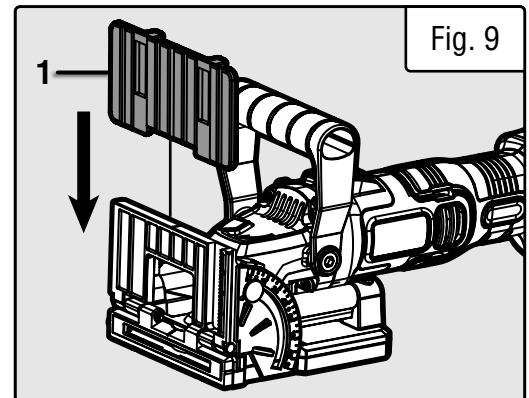
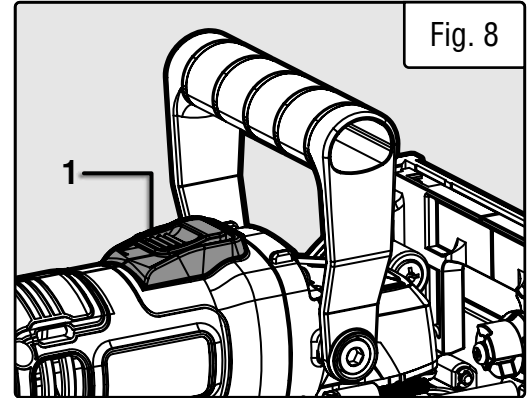
1. Set your cutting depth, cutting angle, and cutting height. Test your settings on a scrap piece of material before moving to your workpiece. Make sure that the tool is switched OFF and the battery is removed when making adjustments.
2. Prepare your workpiece. Mark your path of cut and clamp your workpiece to a level, flat surface to ensure that it does not move during operation.
3. Line up the biscuit joiner with the marking on your workpiece. Make sure that the biscuit joiner does not come into contact with the workpiece prior to starting the machine.
4. Switch the machine ON and wait for it to come to full speed before cutting into the workpiece.
5. With both hands on the biscuit joiner, push it into the workpiece at an even speed until the desired depth is reached. Do not force the biscuit joiner.
6. Slowly pull the biscuit joiner back out from the workpiece before switching it OFF. Press the rear part of the power switch to turn the biscuit joiner OFF. Wait for the biscuit joiner to come to a complete stop before setting it down.

ATTACHMENT PLATE

For cutting workpieces with a thickness below 16mm, place the attachment plate (Fig. 9 - 1) onto the angle fence. This ensures that the groove is not cut too close to the upper surface of the workpiece. When calculating the horizontal cutting position, take into account the 4mm thickness of the attachment plate. You can also use the attachment plate for miter joints in thin workpieces so that the groove is not cut too deep.

DUST EXTRACTION

1. Fit the dust chute adapter (Fig. 10 - 1) and the dust bag (Fig. 10 - 2) into the dust chute. You can also use a dust collector of your choice in replacement of the dust bag.



OPERATION

OPERATION TIPS

It is recommended to test cutting of biscuit slots on scrap wood before making any final cuts. This will help properly align the slot and the biscuit in the final workpiece.

The biscuit joiner is set up to cut the three standard sizes of biscuits. It is recommended to use the largest biscuit size that will fit the joint.

Your biscuit joiner also has an additional 3 cut settings, "S", "D", and "M".

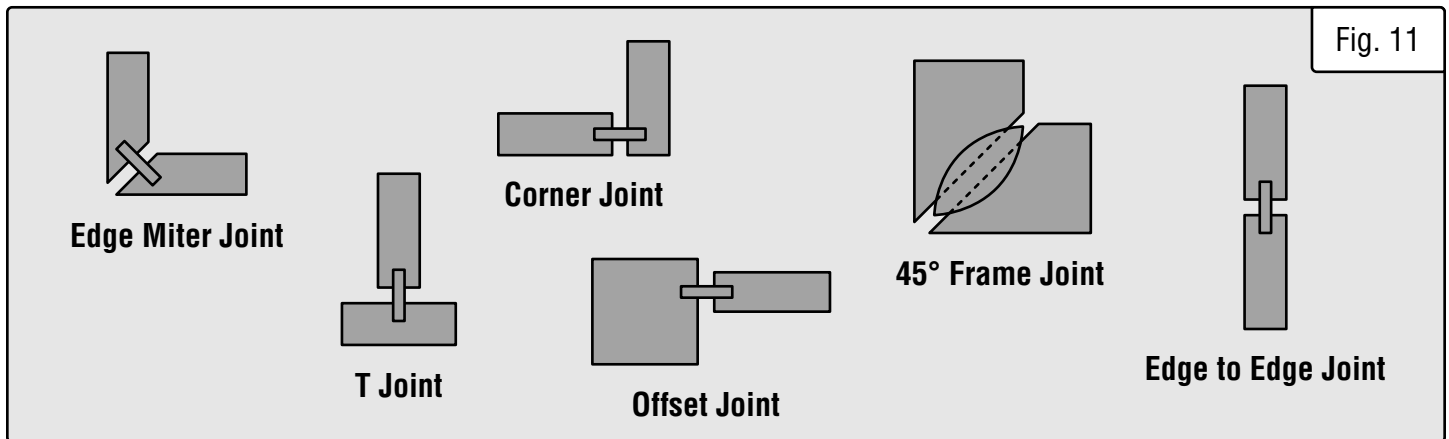
Below are the dimensions of the three standard biscuits included with your biscuit joiner:

- #20 - 1 in. (23mm) x 2.2 in. (56mm)
- #10 - 0.75 in. (19mm) x 2.1 in. (53mm)
- #0 - 0.6 in. (15mm) x 1.9 in. (47mm)

Below are the depth of cut measurements for each setting:

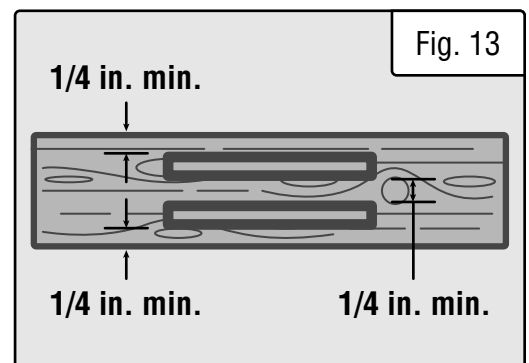
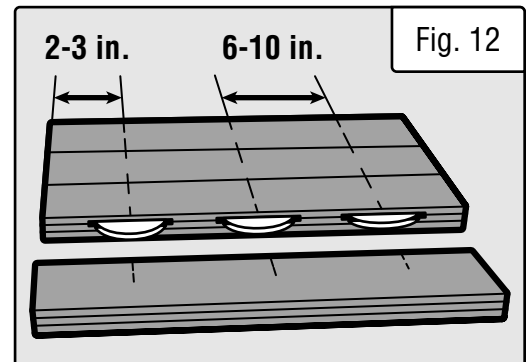
- S (Simplex) - 13mm
- D (Duplex) - 14.7mm
- M (Max Depth) - 20mm

There are many different types of joints that can be made using biscuits. See Figure 11 for a few common different types of layouts.



When determining the location of the biscuit slots, it is generally recommended to place a biscuit in the middle of the joint and additional biscuits 6 to 10 inches from the center biscuit on each side. The biscuit closest to the edge should be placed no less than 2 to 3 inches from the edge (Fig. 12).

For thicker workpieces, you can stack biscuits to ensure secure joints. It is recommended that the distance from the face of the workpiece is no less 1/4 inch and the distance between biscuits is not less than 1/4 inch (Fig. 13).



MAINTENANCE

⚠ WARNING! To prevent serious injury from accidental operation, make sure that the biscuit joiner is turned OFF and the battery is removed from the tool before installation, cleaning, and maintenance operations.

⚠ WARNING! Preventive maintenance performed by unauthorized personnel may result in misplacing of internal wires and components, possibly causing a serious hazard.

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.

Check for:

- Loose hardware
- Damaged battery pack
- Cracked or broken parts
- Any other condition that may affect its safe operation

CLEANING & STORAGE

1. Keep the ventilation openings free from dust and debris to prevent the motor from overheating.
2. Wipe the tool surfaces clean with a damp cloth and mild soap. Make sure water does not get into the tool.

3. 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. Allow the tool to cool before storing it. Store the tool in a clean and dry place away from the reach of children.

PRODUCT DISPOSAL

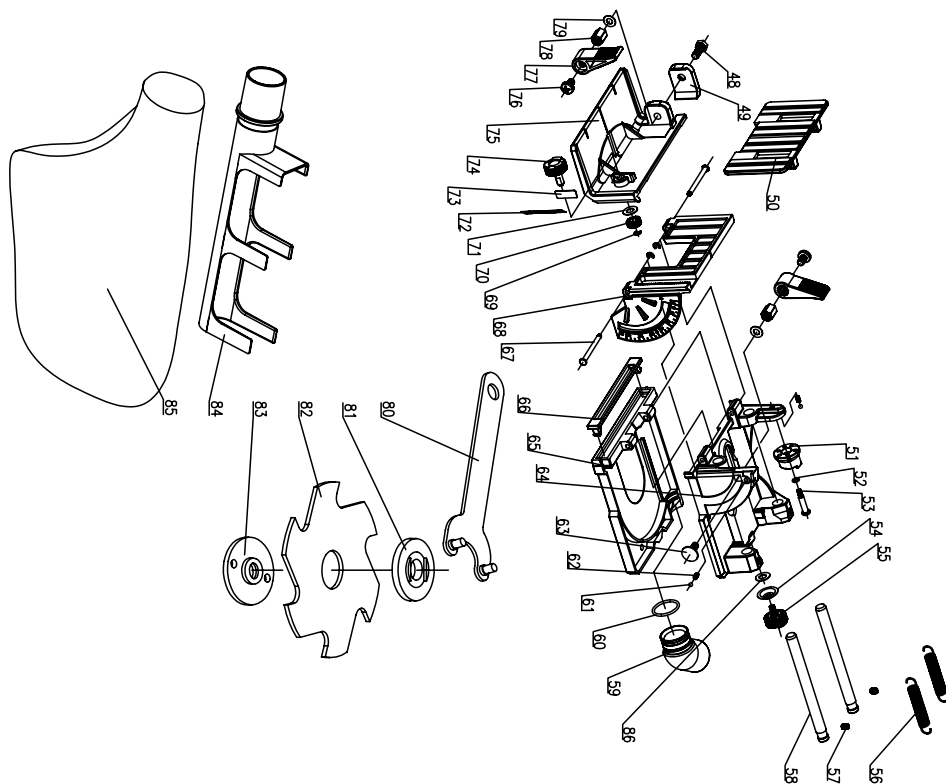
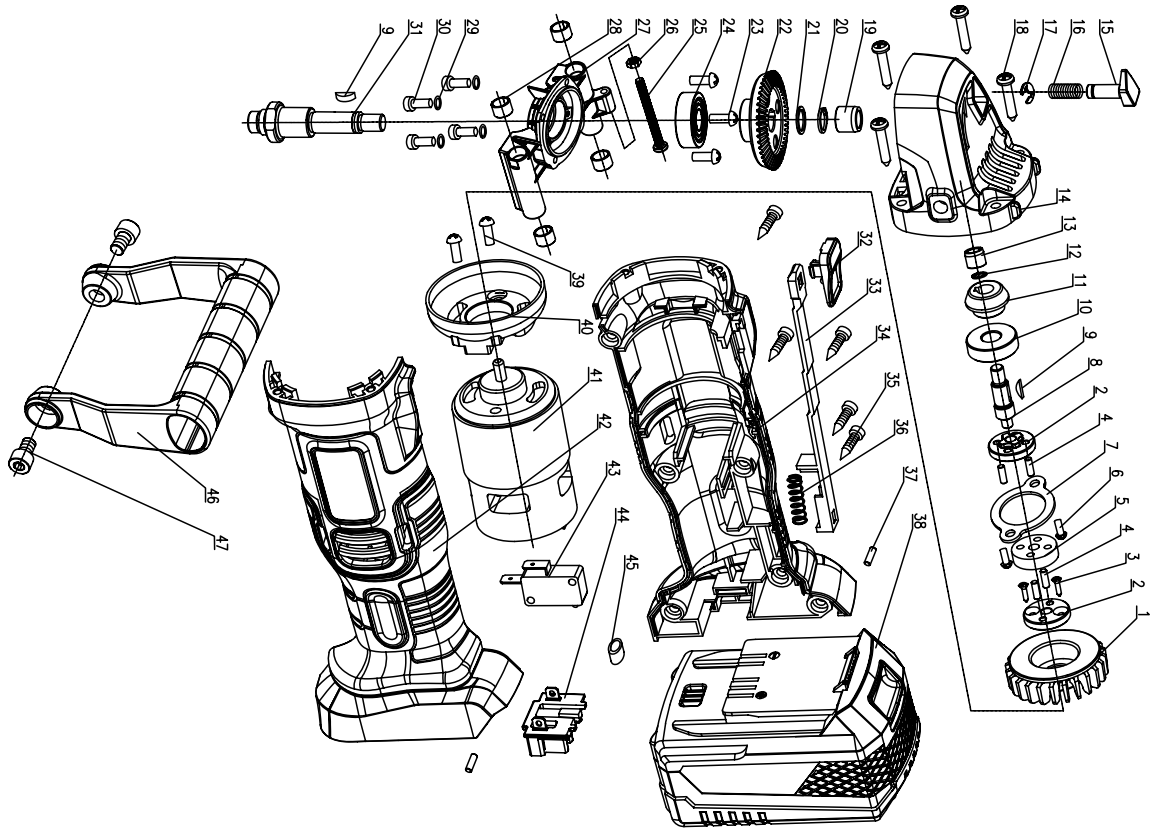
Used power tools should not be disposed of together with household waste. This product contains electronic components that should be recycled. Please take this product to your local recycling facility for responsible disposal and to minimize its environmental impact.

TROUBLESHOOTING GUIDE

⚠ WARNING! Stop using the tool immediately if any of the following problems occur. Repairs and replacements should only be performed by an authorized technician. For any questions, please contact our customer service at **1-847-429-9263**, M-F 8-5 CST or email us at techsupport@wenproducts.com.

PROBLEM	CAUSE	SOLUTION
Unit will not start.	1. Battery not seated properly on the battery terminal of the tool.	1. Properly install the battery.
	2. Battery has no charge.	2. Charge the battery.
	3. Damage or wear to internal parts.	3) Contact customer service at 1-847-429-9263 for assistance.
Unit's performance decreases over time.	1. Blade has become dull or damaged.	1. Replace the blade if needed.
Excessive noise or vibration.	1. Damage or wear to internal parts.	1. Contact customer service at 1-847-429-9263 for assistance.
Unit is overheating.	1. Tool is being advanced too quickly into the workpiece.	1. Slow down tool advancement into material.
	2. Blade is damaged or dull.	2. Replace the blade if needed.
	3. Dust has collected in the motor housing vents.	3. Clean dust from vents. Use compressed air to blow dust out while using properly rated safety glasses and dust mask.

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.	Part No.	Description	Qty.	No.	Part No.	Description	Qty.
1	20648-001	Motor Fan	1	44	20648-044	Battery Terminal	1
2	20648-002	Clutch	2	45	20648-045	Magnet Ring	1
3	20648-003	Screw	2	46	20648-046	Front Handle	1
4	20648-004	Pin	4	47	20648-047	Screw	2
5	20648-005	Clutch Buffer Pad	1	48	20648-048	Hex Screw	1
6	20648-006	Screw	2	49	20648-049	Clamping Bracket	1
7	20648-007	Motor Bearing Plate	1	50	20648-050	Intermediate Plate	1
8	20648-008	Gearshaft	1	51	20648-051	Depth Selector	1
9	20648-009	Shaft Key	2	52	20648-052	O-Ring	1
10	20648-010	Bearing	1	53	20648-053	Socket Head Cap Screw	1
11	20648-011	Pinion	1	54	20648-054	Leaf Spring	1
12	20648-012	Check Ring	1	55	20648-055	Blade Housing Knob	1
13	20648-013	Bearing	1	56	20648-056	Slide Springs	2
14	20648-014	Motor Head	1	57	20648-057	Set Screw	2
15	20648-015	Blade Lock Button	1	58	20648-058	Slide Rails	2
16	20648-016	Spring	1	59	20648-059	Dust Port Connector	1
17	20648-017	Check Ring	1	60	20648-060	O-Ring	2
18	20648-018	Screw	4	61	20648-061	Locating Ball	2
19	20648-019	Bearing	1	62	20648-062	Compression Spring	2
20	20648-020	Check Ring	1	63	20648-063	Round-Head Bolt	1
21	20648-021	Spring Washer	1	64	20648-064	Upper Blade Housing	1
22	20648-022	Gear	1	65	20648-065	Blade Housing Base	1
23	20648-023	Screw	3	66	20648-066	Rubber Footing	1
24	20648-024	Bearing	1	67	20648-067	Hinge Pin	2
25	20648-025	Depth Stop Screw	1	68	20648-068	Bevel Plate	1
26	20648-026	Hex Nut	1	69	20648-069	Spring Retaining Ring	3
27	20648-027	Slide Bracket	1	70	20648-070	Height Adjust Gear	1
28	20648-028	Slide Collars	4	71	20648-071	Washer	1
29	20648-029	Spring Washer	4	72	20648-072	Height Scale	1
30	20648-030	Screw	4	73	20648-073	Leaf Spring	1
31	20648-031	Spindle	1	74	20648-074	Height Adjust Knob	1
32	20648-032	Switch Button	1	75	20648-075	Height Adjust Bracket	1
33	20648-033	Switch Drawbar	1	76	20648-076	Oval-Head Screw	2
34	20648-034	Right Housing	1	77	20648-077	Tension Locking Lever	2
35	20648-035	Screw	7	78	20648-078	Hex Nut	2
36	20648-036	Spring	1	79	20648-079	Shim Ring	2
37	20648-037	Battery Buffer Pad	2	80	JN8504-078	Wrench	1
38	20648-038	*Battery Pack	1	81	20648-081	Lower Blade Collar	1
39	20648-039	Screw	2	82	JN8504-052	Blade	1
40	20648-040	Fan Bracket	1	83	20648-083	Upper Blade Collar	1
41	20648-041	Motor	1	84	20648-084	Dust Bag Frame	1
42	20648-042	Left Housing	1	85	20648-085ASM	Dust Bag Assembly	1
43	20648-043	Microswitch	1	86	20648-086	O-Ring	1

*Only included with model 20648.

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.