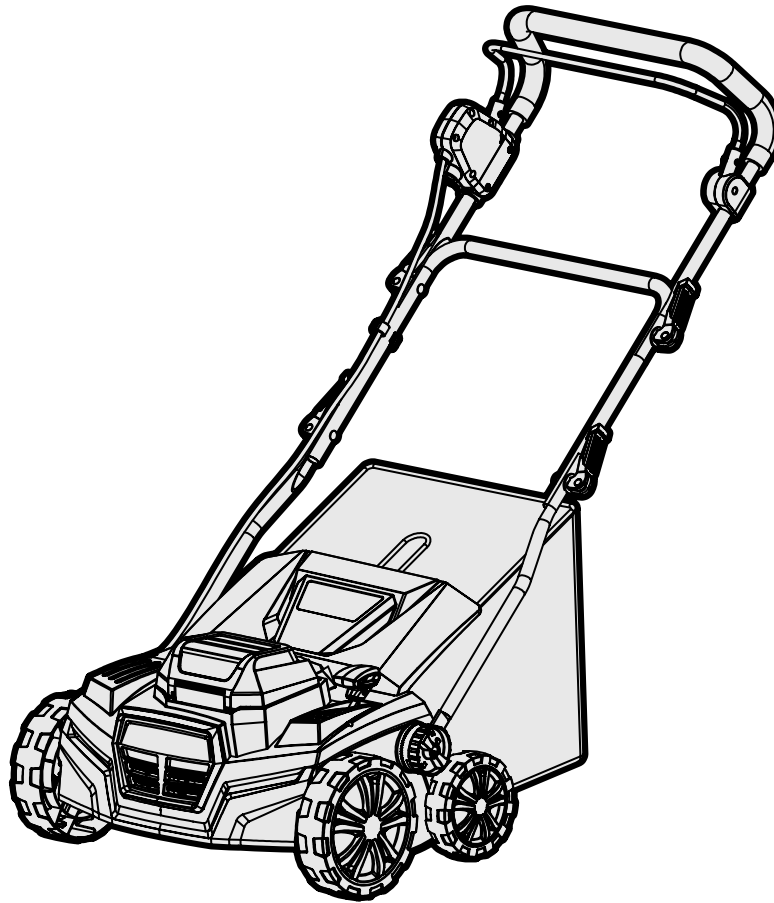




**MODEL 20716, 20716BT**

# ***20V MAX 15-INCH BRUSHLESS SCARIFIER AND DETHATCHER***

**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, 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)

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.

**NOTE:** For the best results with this product, we recommend using a battery with a capacity of 4Ah or higher.

## INTRODUCTION

Thanks for purchasing the WEN Scarifier and Dethatcher. 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](http://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	20716, 20716BT
Included Battery*	4.0Ah Battery (2) (Model 20204D)*
Included Charger*	20V, 2A DC (Model 20200D)*
No Load Speed	3000 RPM
Working Width	15 Inches
Working Height	-1/2", -3/8", -1/4", -1/8", +1/4"
Blade Count (Scarifier)	16
Steel Tines (Dethatcher)	24
Blade Diameter	5 Inches
Product Weight	23.4 Pounds (Without Batteries and Charger)
Product Dimensions	42.9 in. x 22.8 in. x 40.2 in.
Battery Models	All WEN 20V MAX Batteries**
Charger Models	All WEN 20V MAX Chargers

**NOTE:** For the best results with this product, we recommend using a battery with a capacity of 4Ah or higher.

**\*NOTE:** Battery and charger only included with model 20716. 20716BT 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.

# DETHATCHER & SCARIFIER SAFETY WARNINGS

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

## DETHATCHER AND SCARIFIER SAFETY

**1. TURN OFF AND REMOVE THE BATTERY** from the unit when not in use or when servicing or cleaning. Do not leave unattended.

**2. ONLY USE THE TOOL FOR ITS INTENDED PURPOSE** - Do not use this product for any job except that for which it is intended.

**3. DO NOT OVERREACH** - Guide the dethatcher / scarifier at a walking pace only. Keep proper footing and balance at all times.

**4. LIGHTING** - Only operate your dethatcher / scarifier in daylight or good artificial light.

**5. STORE IDLE UNIT INDOORS** - When not in use, the dethatcher / scarifier should be stored indoors, in a dry area, and out of the reach of children.

**6. MAINTAIN UNIT WITH CARE** - Keep clean for best performance and to reduce the risk of injury. Keep handles dry, clean, and free from oil.

7. Do not operate the dethatcher / scarifier on a slope that is too steep for safe operation. When on slopes, slow down and make sure you have stable footing.

8. Before starting the dethatcher / scarifier make sure the tines are not touching any object and are free to move.

9. Grip the guide bar firmly with both hands. Never operate the dethatcher / scarifier with one hand.


**10. STAY ALERT** - Watch what you are doing. Use common sense. Do not operate the dethatcher / scarifier when you are tired or under the influence of drugs, alcohol, or medication


11. If the dethatcher / scarifier strikes a foreign object, turn it off immediately, wait for the tines to stop, and check for damage. If necessary, repair before restarting.


12. If the dethatcher / scarifier starts to vibrate abnormally, turn it off immediately and check for the cause. Excessive vibration is generally a sign of a malfunction or damaged parts.


13. Before carrying out any maintenance or repairs, always turn the dethatcher / scarifier OFF, remove the battery from the unit, and wait until the tines come to a complete stop.


**14. KEEP AWAY FROM WATER** - Do not expose the dethatcher / scarifier to wet or rainy conditions. Never operate the dethatcher / scarifier with wet hands. Both can increase the risk of shock, personal injury, or tool damage.


 **CAUTION!** Tines do not stop immediately after the dethatcher / scarifier is turned off.

 **CAUTION!** The dethatcher / scarifier may bounce upward or jump forward if the tines strike extremely hard packed soil, frozen ground, or buried obstacles such as large stones, roots or stumps.

 **WARNING!** Do not operate the dethatcher / scarifier near underground electrical cables, telephone lines, pipes or hoses.

 **DANGER! RISK OF CUT** - Wear gloves and use caution when cleaning or performing maintenance on the dethatcher / scarifier.

 **CAUTION!** Risk of injury. Do not put hands, feet, or any body part or clothing near the rotating tines.

 **WARNING!** Some dust and debris created by the use of this tool could contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. Some examples of these chemicals are:

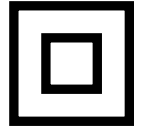
- Chemicals in fertilizers.
- Compounds in insecticides and pesticides.
- Arsenic & chromium from treated lumber

To reduce your risk of exposure, work in a well-ventilated area and wear approved safety equipment.

## 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).

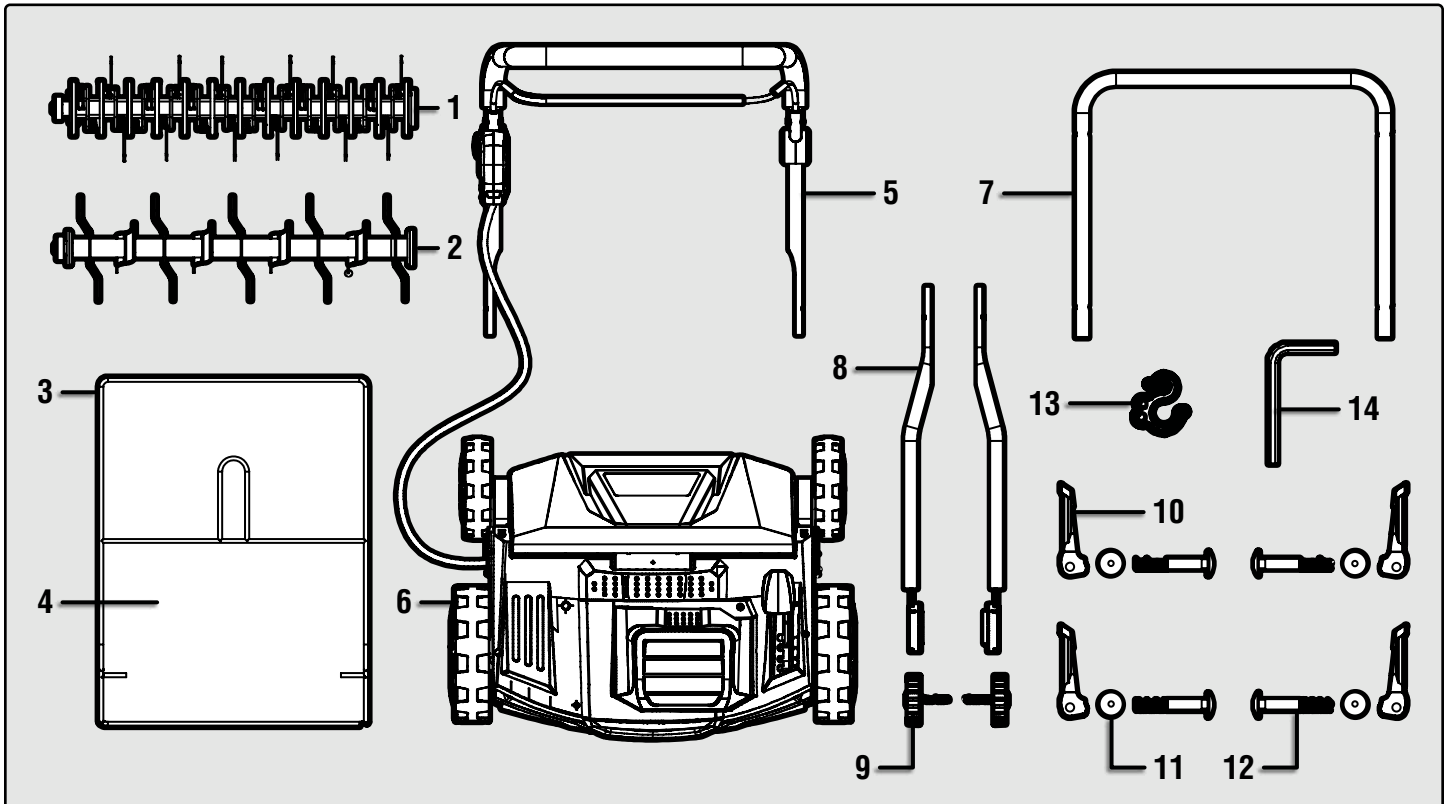
Do not use batteries that have been exposed to heat during the charging process, as the battery cells may have suffered dangerous damage.

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 Dethatcher and Scarifier 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](mailto:techsupport@wenproducts.com).



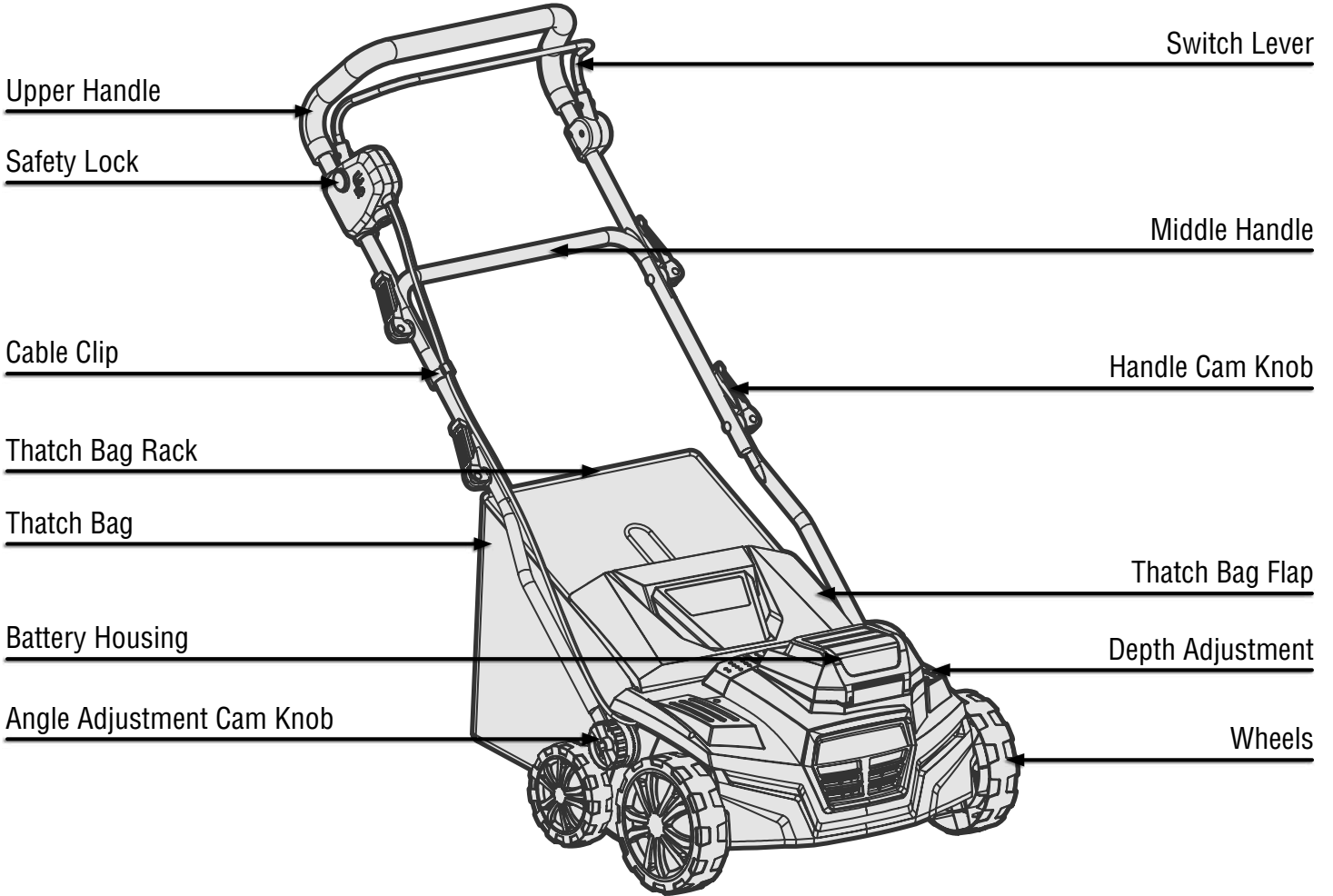
1. Dethatcher Blade (1)
2. \* Scarifier Blade (1)
3. Thatch Bag Rack (1)
4. Thatch Bag (1)
5. Upper Handle (1)
6. Dethatcher / Scarifier Body (1)
7. Middle Handle (1)
8. Lower Handles (2)
9. Angle Adjustment Cam Knobs (2)
10. Handle Cam Knobs (4)
11. Handle Knob Washers (4)
12. Handle Knob Bolts (4)
13. Cable Clips (2)
14. Hex Wrench, 5mm (1)

\* Preinstalled on the unit.

# KNOW YOUR DETHATCHER & SCARIFIER

## TOOL PURPOSE

Pick up debris from your lawn for better oxygen absorption, airing, and drainage with your WEN Dethatcher and Scarifier. Despite its name, a scarifier has nothing to do with Halloween; please do not attempt to scare any neighborhood children with it. Better yet, children should be kept far away while operating. Refer to the following diagram to become familiarized with all the parts and controls of your Dethatcher and Scarifier. The components will be referred to later in the manual for assembly and operation instructions.



# ASSEMBLY & ADJUSTMENTS

**⚠ WARNING!** Make sure that the machine is switched OFF and that the safety key and batteries are removed from their terminals before assembling or making any adjustments.

## ATTACHING THE HANDLE

1. Attach the lower handle (Fig. 1 - 1) to the dethatcher / scarifier body using an angle adjustment cam knob (Fig. 1 - 2). Repeat with the second lower handle.

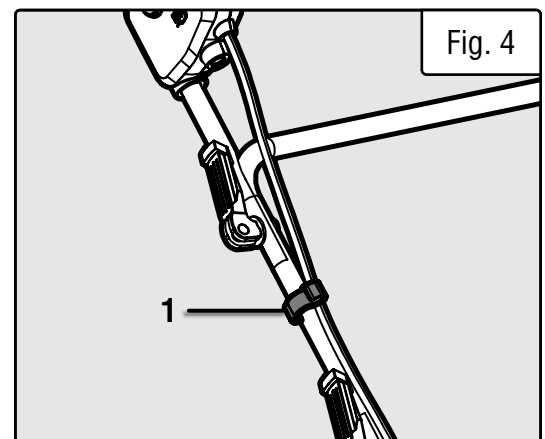
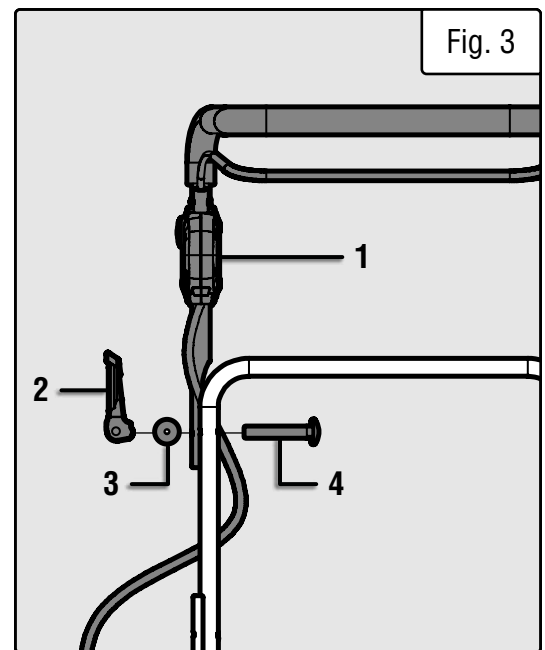
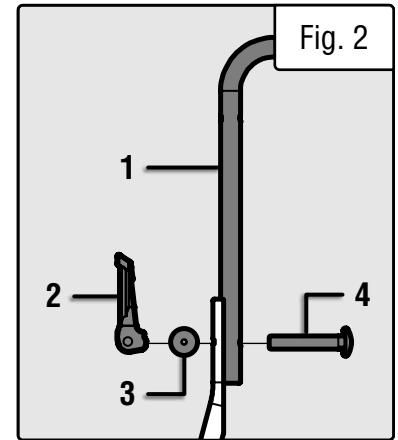
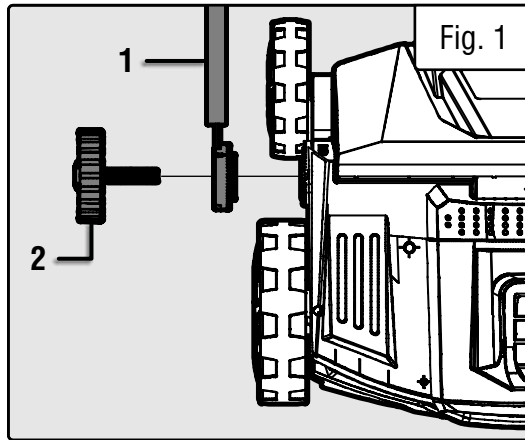
**NOTE:** There are three height positions that you can adjust the handles to. To unlock the angle adjustment cam knob, twist the knob to the left. Adjust the handles to your desired height and relock the angle adjustment cam knobs. Make sure they are both securely locked before beginning operation.

2. Install the middle handle (Fig. 2 - 1) onto the two lower handles using two handle cam knobs (Fig. 2 - 2), two washers (Fig. 2 - 3), and two bolts (Fig. 2 - 4), one on either side. To lock the handle cam knobs in place, push the knob to the UP position as shown in Fig. 2. **NOTE:** Make sure that the middle handle is installed on the inside of the lower handles as shown in Fig. 2.

3. Install the upper handle (Fig. 3 - 1) onto the middle handle using two handle cam knobs (Fig. 3 - 2), two washers (Fig. 3 - 3), and two bolts (Fig. 3 - 4), one on either side. To lock the handle cam knobs in place, push the knob to the UP position as shown in Fig. 3. **NOTE:** Make sure that the upper handle is installed on the outside of the middle handle as shown in Fig. 3.

4. Slip the power cord through the cable clip (Fig. 3 - 7) and secure the cable clip right below the lower and middle handle connection point as shown in Fig. 3.

5. Secure the cable along the handle with the supplied cable clips (Fig. 4 - 1).



# ASSEMBLY & ADJUSTMENTS

## INSTALLING THE THATCH BAG

**⚠ WARNING!** Turn the machine OFF, remove the safety key and the batteries from their terminals, and wait for the tines to come to a complete stop before attaching or emptying the thatch bag.

Attach the thatch bag to the dethatcher / scarifier before beginning operation.

1. Lift up the thatch bag cover (Fig. 5 - 1) and secure the thatch bag (Fig. 5 - 2) to the dethatcher / scarifier using the mounting hooks located on the back of the body, under the cover.

2. Use the clips on either side of the thatch bag to clip it onto the frame of the thatch bag rack (Fig. 5 - 3).

**NOTE:** Empty the thatch bag frequently and do not wait until it is completely full.

### To remove the thatch bag for emptying:

1. Lift the thatch bag cover and remove the thatch bag from the mounting hooks.

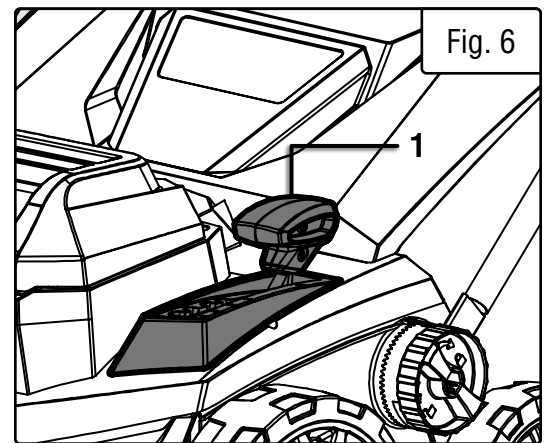
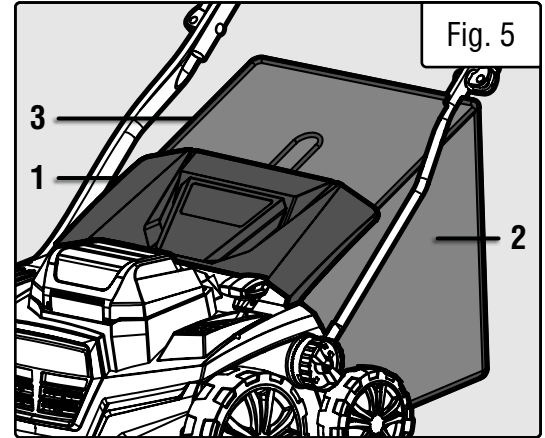
2. Empty the thatch bag and reattach following the instructions above.

## ADJUSTING THE DEPTH

**⚠ WARNING!** The machine must be switched OFF and the safety key and batteries must be removed from their terminals before adjusting the tines.


To adjust the depth, move the depth adjustment lever (Fig. 6 - 1) to the right and then down to the preferred gear. See the chart below for different depth settings:

**NOTE:** Negative depth settings indicate that the blades are digging into the ground.



Position	Setting	Application		
		Depth	Scarifying	Dethatching
1	High	1/4"	Do not use for scarifying.	Transport, removing thin thatch layers.
2	Minimal	-1/8"	Do not use for scarifying.	Dethatching healthy lawn.
3	Medium	-1/4"	Transport, storage, and scarifying.	Storage and dethatching.
4	Deep	-3/8"	Use for scarifying.	Not recommended for dethatching.
5	Deep	-1/2"	Use for scarifying.	Do not use for dethatching.

# ASSEMBLY & ADJUSTMENTS

 **WARNING!** To avoid injury from accidental startups, make sure that the tool is switched OFF and that the safety key and the batteries are removed from their terminals.

## CHARGING THE BATTERY PACKS

The 20V battery packs for this tool are supplied in a low charge condition to prevent possible problems, and must be charged completely before you use the tool for the first time.

**NOTE:** The battery packs and charger are not included with model 20716BT.

1. Connect charger to a 120V, 60Hz AC outlet. The green lights on the charger will illuminate, indicating that the charger is powered.

2. Slide the battery all the way into one of the charger ports until it clicks. The red light on the corresponding charger port will illuminate, indicating that the battery is charging.

### Charging Indication:

- Solid Green: Ready to Charge
- Solid Red: Charging
- Solid Green: Charged

3. When the battery is charged, the red light will turn off and the green light will turn on. Remove the battery from the charger and unplug the charger from the power supply.

**NOTE:** Battery will not reach full charge the first time it is charged. Allow several cycles for the battery to fully charge. The battery pack may become warm while charging; this is normal. If the battery is hot after continuous use in the tool, allow it to cool to room temperature before charging. This will prolong the life of your battery.

The battery pack is equipped with three LED battery life indication lights. Press and hold the power button on the front or rear of the battery to check the battery's charge status.

### Battery Life Indication:

- Three Lights: The battery is fully charged.
- Two Lights: The battery is about 60% charged.
- One Light: The battery is almost out of power and needs to be charged.

## INSERTING AND REMOVING THE BATTERIES (FIG. 7, P. 15)

**NOTE:** The dethatcher / scarifier requires 2 batteries to operate. You may use batteries of two different capacities (e.g. 2Ah and 4Ah), but the dethatcher / scarifier's runtime depends on the lower-capacity battery. For best results, we recommend using at least 4Ah batteries.

1. To install the battery, slide the battery pack into the battery port. Make sure the release latch on the rear side of the battery pack snaps into place and the battery is secure before beginning operation.

2. To remove the battery pack, press the battery release latch on the front of the battery and pull the battery pack out.

# OPERATION

## POWERING ON & OFF

**⚠ WARNING!** Before powering ON the machine, make sure that it will not come in contact with any foreign objects during start up. Keep your hands and feet away from the rotating tines / blades.

1. Press the tab on the front of the battery cover. Install the batteries (Fig. 7 - 1) and connect the safety key (Fig. 7 - 2).

**NOTE:** The tool will not start if the safety key is not connected.

1. To power ON the dethatcher / scarifier, press the safety lock button (Fig. 8 - 1) on the side of the upper handle with one hand. At the same time, pull the switch handle (Fig. 8 - 2) towards the upper handle with your other hand. The safety lock and the switch handle must be engaged at the same time for the machine to power ON.

2. Release the safety lock button and use both hands to hold the switch handle against the upper handle.

### To power OFF the dethatcher / scarifier:

1. Gently release the switch handle and let the tines / blades come to a complete stop.

2. Remove the batteries and the safety key from their terminals once you've completed operation.

**⚠ WARNING!** The tine cylinders continue to run after releasing the switch handle. DO NOT tilt or carry the unit while the tines are still in motion. Do not touch the cylinder until it has come to a complete stop.

## GENERAL OPERATION

1. Double check that the accessories are secure before beginning operation.

2. Mark any sprinkler heads, lights, or other landscaping fixtures before beginning. Remove any hoses or other obstacles from the lawn.

3. Push the machine forward by its handle.

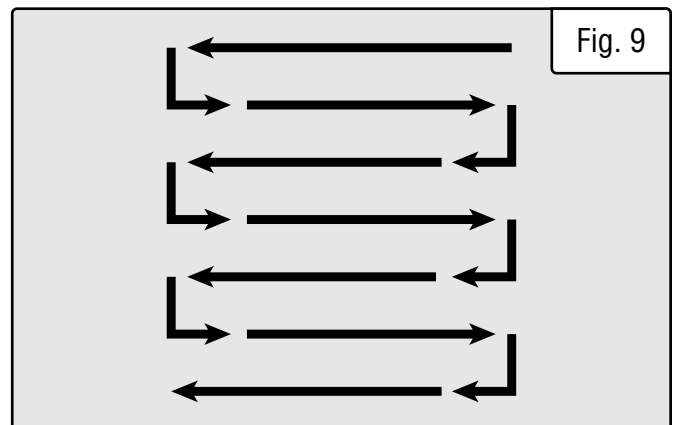
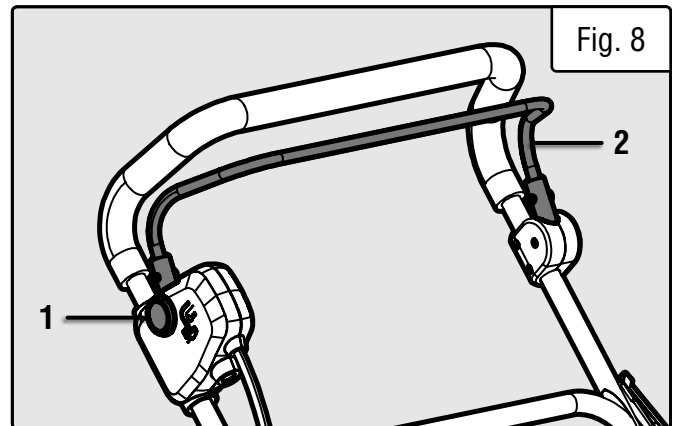
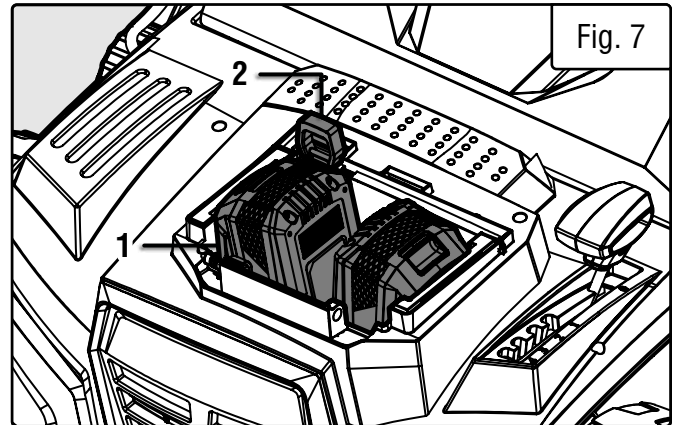
4. Make sure that all air vents are kept clean and unobstructed. Blocked air vents can lead to overheating.

5. Make sure the lawn is clear of stones, sticks, wire, or other objects that could damage the machine.

6. Do not work on a wet lawn.

7. Slowly push the machine forward. Move the machine at an appropriate speed. Do not push the machine too hard. This can cause overload or blockage of discharge.

8. Work in slight overlapping rows. The most effective pattern for scarifying / raking lawns is straight lines along one of the sides. This will keep the rows even and ensure that no areas are missed (Fig. 9).



## **OPERATION**

### **OVERLOAD PROTECTION**

Your machine is equipped with overload protection and will activate in the following circumstances:

- a. If there is a build-up of scarified materials around the cutting device.
- b. If the scarified materials are larger than the motor capacity.
- c. If there is too much resistance against the cutting device.

If the circuit breaker has been activated, switch the machine OFF and remove from the power source. Let the dethatcher / scarifier cool down while determining the issue. Remove build-up or large materials before continuing operation.

### **SCARIFYING**

Scarifying is more intense than dethatching. The blades reach down deep to remove moss, fungus, thatch, and other unwanted buildup from your lawn, while leaving the grass intact. At the same time, it scarifies (cuts grooves into) the ground, resulting in better drainage aeration for your lawn and, overall, better growth. Increase the depth setting in spring (April - May). The lawn is actively growing and will recover much better during this season. If the summer is wet, scarify again in late summer or early fall, using a decreased depth setting. Do not scarify during periods of hot, dry weather. If the summer is very dry, do not scarify again in fall.

### **RAKING / DETHATCHING**

Dethatching is less intense than scarifying, and does just what it sounds like - the steel tines reach down to pick up thatch and other light debris, resulting in better aeration and drainage. When to dethatch varies; if your lawn is prone to thatch buildup (especially if you use a mulch setting on your lawn mower, or have certain species of grass), you'll need to dethatch more often. Choose a time when the grass is actively growing, and the soil has some moisture. In the northern half of the US, this will usually be in the early spring or early fall. For the southern half of the US, this will usually be in late spring through early summer.



# MAINTENANCE

## ROUTINE INSPECTION

Before each use, inspect the tool. When performing maintenance, make sure that the safety key and the batteries are removed from their terminals. If any of these following conditions exist, do not use until parts are replaced.


### Check for:


- Loose hardware or improper mounting
- Misalignment
- Cracked or broken parts
- Any other condition that may affect its safe operation

Once per season, lubricate the tines / blades and shaft. At the end of the season, check the dethatcher / scarifier for damage prior to storing. Repair or replace damaged or broken parts.

## CLEANING

 **WARNING!** Remove the batteries before cleaning the machine.

 **CAUTION!** Always clean the dethatcher / scarifier after each use. Failure to carry out proper cleaning can result in damage to the dethatcher / scarifier or result in poor performance.

 **CAUTION!** Never use a water hose to clean the dethatcher / scarifier.

Clean the underside of the tine guard and motor housing around the tines using a scrubbing brush and a soft cloth dampened with a mild soap and water mixture.

To remove soil and debris from the tines, use a stiff brush or a dampened cloth.

Clean the vents on the motor housing and remove any remaining grass or dirt.

Once cleaned, wipe the tines and shaft dry and apply a light coat of oil to prevent rust.

## STORAGE

Store this tool carefully in a secure, dry place, out of reach of children. Remove the safety key and the batteries from their terminals. Charge the batteries fully and store them in a cool, dry place, out of the reach of children.

During extended periods of storage, ensure that the tool is protected against corrosion and frost.

At the end of the season, or if the tool is not being used for longer than a month, wipe over metal surfaces with an oil covered cloth or spray a fine coat of oil to protect the tiller from corrosion.

Fold the handle bar down and store the tool in a suitable place, out of the reach of children.

## PRODUCT DISPOSAL

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



**Please recycle the packaging and electronic components where facilities exist.**

## REPLACING / CHANGING THE BLADE

**⚠ WARNING!** Make sure that the machine is switched OFF and that the safety key and batteries are removed from their terminals before removing or replacing the blade.

**⚠ WARNING!** The tines are very sharp and become hot during use. Handle with care when removing or replacing. Wear safety gloves when handling the tines to avoid burns and / or cuts.

The dethatcher / scarifier comes with two lawn blades with two different functions. The scarifier blade (Fig. 10 - 1) comes pre-assembled on the machine. The dethatching / raking blade (Fig. 10 - 2) is included inside the box and can be changed out according to your application.

### To remove the scarifier or dethatcher blade:

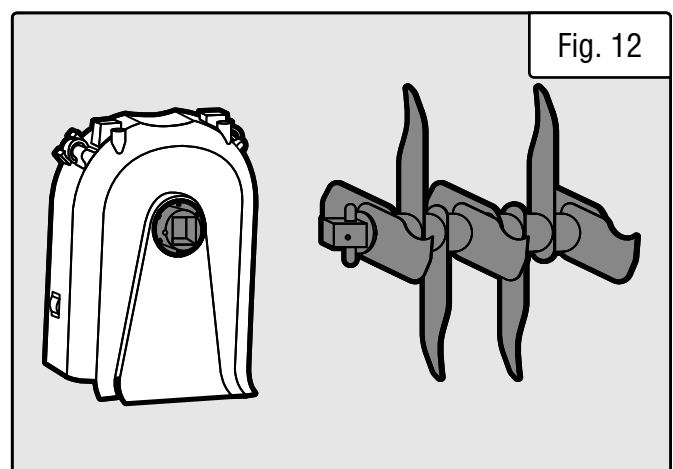
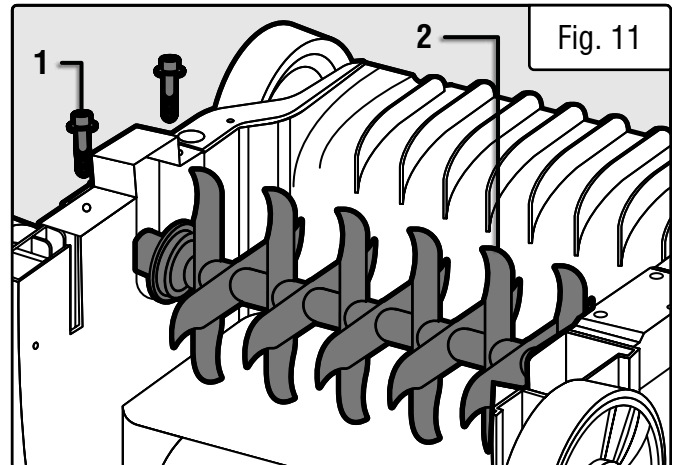
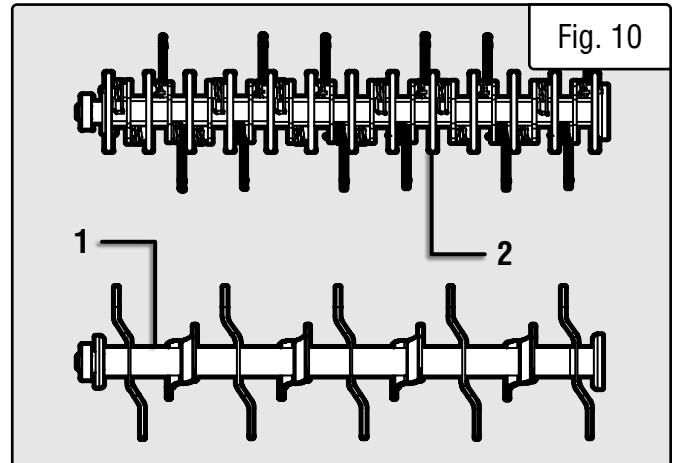
1. Unscrew the hex screws (Fig. 11 - 1) on the bottom of the dethatcher / scarifier body.

2. Carefully remove the blade bracket and blade (Fig. 11 - 2). When removing the dethatcher blade, wear safety gloves and take care not to scrape yourself on the sharp tines. Note that both blades may get hot during operation.

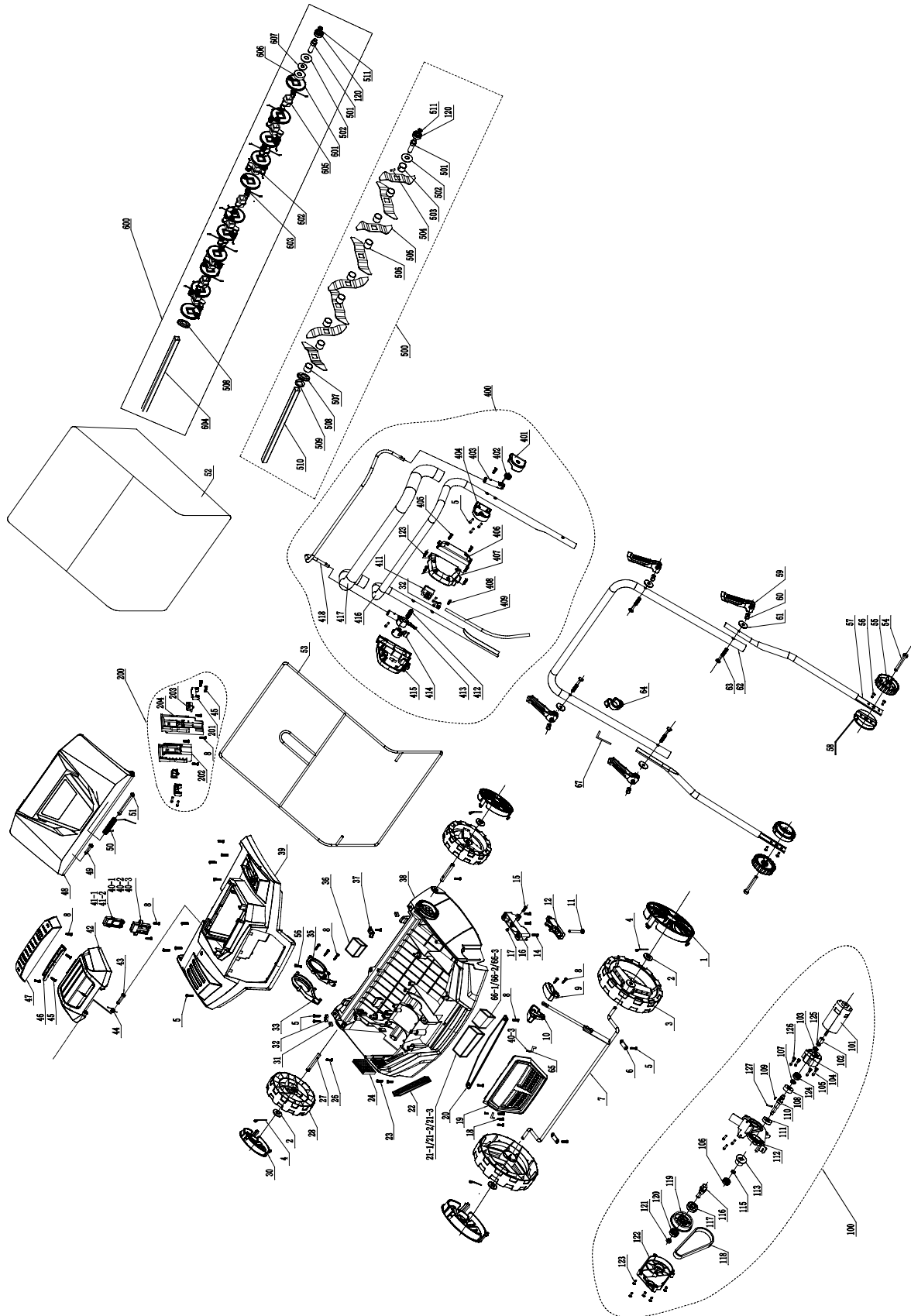
### To install the scarifier or dethatcher blade:

1. Align the square end of the blade shaft with the square hole of the output gear (Fig. 12).

2. Press the bearing on the blade into the blade bracket slot. Secure the blade in place by reinstalling the blade bracket and hex screws using the included hex wrench.



# 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.
1	DT1315-001	Front Hub Cap	2
2	DT1315-002	Front Wheel Washer	4
3	DT1315-005	Front Wheel	2
4	DT1315-038	Front Wheel Pin	4
5	20716-005	Self-tapping Screw, ST4x20	13
6	20716-006	Front Axle Plate	2
7	DT1315-004	Front Axle	1
8	20716-008	Self-tapping Screw, ST4x16	18
9	20716-009	Right Depth Adjustment Handle	1
10	20716-010	Left Depth Adjustment Handle	1
11	20716-011	Socket Cap Screw, M6x12	1
12	20716-012	Blade Bracket Arm	1
14	20716-014	Self-tapping Screw, ST5x25	3
15	20716-015	Screw, M5x25	1
16	20716-016	Blade Bearing Bracket	1
17	20716-017	Lock Nut, M5	1
18	20716-018	Self-tapping Screw, ST4x12	3
19	20716-019	Front Grill	1
20	20716-020	Counterweight Mounting Bracket	1
21-1	20716-021	Counterweight 1 Assembly	1
21-2			
21-3			
22	20716-022	Air Filter 2	1
23	20716-023	Self-tapping Screw, ST4x20	2
24	20716-024	Air Filter 1	1
26	20716-026	Self-tapping Screw, ST5x25	2
27	DT1315-022	Rear Wheel Axle Pin	2
28	DT1315-024	Rear Wheel	2
30	DT1315-026	Rear Hub Cap	2
31	20716-031	Square Nut, M8, 12x12x6	2
32	20716-032	Cable Clamp	1
33	20716-033	Exhaust Cover A	1
35	20716-035	Exhaust Cover B	1
36	20716-036	PCB	1
37	20716-037	PCB Mounting Bracket	1
38	20716-038	Housing	1

NO.	PART NO.	DESCRIPTION	QTY.
39	20716-039	Housing Cover	1
40-1	20716-040	Safety Key Assembly	1
40-2			2
40-3			4
41-1	20716-041	Safety Key Lock	1
41-2			1
42	20716-042	Battery Cover	1
43	20716-043	Battery Cover Pin	1
44	20716-044	Battery Cover Spring	1
45	20716-045	Screw, ST4x12	2
46	20716-046	Handle Cover	1
47	20716-047	Handle	1
48	20716-048	Grass Bag Cover	1
49	20716-049	Grass Bag Cover Pin	1
50	20716-050	Grass Bag Cover Spring	1
51	20716-051	Spring Retaining Pin	1
52	DT1315-040	Grass Bag	1
53	DT1315-039	Grass Bag Frame	1
54	20716-054	Screw, M8x50	2
55	20716-055	Handle Height Adjustment Knob	2
56	20716-056	Self-tapping Screw, ST4.8x14	6
57	DT1315-051	Lower Handle Rod	2
58	20716-058	Lower Handle Bracket	2
59	DT1516-038	Lower Locking Knob	4
60	DT1516-039	Pin	4
61	DT1516-032	Locking Knob Washer	4
62	DT1315-046	Middle Handle Frame	1
63	DT1315-044	Handle Frame Carriage Bolt, M6-0.75x53	4
64	DT1315-049B	Hex Wrench Clip	2
65	20716-065	Grill Retainer Clip	2
66-1	20716-066	Counterweight 2 Assembly	1
66-2			
66-3			
67	DT1315-031	Hex Wrench, 5mm	1
100	20716-100ASM	Motor Assembly	1
101	20716-101	Motor	1
102	20716-102	Pinion	1
103	20716-103	Flexible Shaft Washer, 6mm	1
104	20716-104	Gearbox	1
105	20716-105	Screw, M5x16	4

## EXPLODED VIEW & PARTS LIST

NO.	PART NO.	DESCRIPTION	QTY.
106	20716-106	Bearing, 608-2RS	1
107	20716-107	Flexible Shaft Washer, 12mm	1
108	20716-108	Motor Gear	1
109	20716-109	Key, 3x3x10	1
110	20716-110	Large Gearshaft	1
111	20716-111	Bearing, 6001-ZZ	1
112	20716-112	Pulley Support	1
113	20716-113	Small Pulley	1
115	20716-115	Gasket	1
116	20716-116	Output Shaft	1
117	20716-117	Bearing, 6002-2RS	1
118	DT1315-124	Drive Belt, EPJ350	1
119	20716-119	Large Pulley	1
120	20716-120	Bearing, 6000-2RS	1
121	20716-121	Lock Nut, M8	1
122	20716-122	Bracket Cover	1
123	20716-123	Self-tapping Screw, ST4x18	8
124	20716-124	Bearing, 608-ZZ	1
125	20716-125	Gasket	1
126	20716-126	Wear Pad	4
127	20716-127	Roll Pin	1
200	20716-200ASM	Battery Terminal	1
201	20716-201	Battery Pack Insert Pressure Plate	2
202	20716-202	Board 1	1
8	20716-8	Self-tapping Screw, ST4x16	4
45	20716-45	Self-tapping Screw, ST4x12	4
203	20716-203	Board 2	2
204	20716-204	Board 3	1
400	20716-400ASM	Handle Assembly	1
401	20716-401	Trigger Seat, Left	1
402	20716-402	Spring	1
403	20716-403	Connecting Rod	1
404	20716-404	Trigger Seat, Right	1
405	20716-405	Self-tapping Screw, ST4x25	2
406	20716-406	Pressure Plate	1
407	20716-407	Switch Housing, Left	1
408	20716-408	Switch Plug Head	1
409	20716-409	Wire	1

NO.	PART NO.	DESCRIPTION	QTY.
411	20716-411	Rocker Switch	1
412	20716-412	Spring	1
413	20716-413	Trigger	1
414	20716-414	Switch Button	1
415	20716-415	Switch Housing, Right	1
416	20716-416	Upper Handle Tube	1
417	20716-417	Upper Handle Grip	1
418	20716-418	Trigger Handle	1
5	20716-005	Self-tapping Screw, ST4x20	3
32	20716-032	Cable Clamp	2
123	20716-123	Self-tapping Screw, ST4x18	8
500	DT1315-300	Scarifier Blade Assembly	1
501	DT1315-301	Bearing Shaft	1
502	DT1315-302	Bearing Shaft Washer	1
503	DT1315-303	Bearing Shaft Collar	1
504	DT1315-304	Set Pin	1
505	DT1315-305	Scarifier Blade	8
506	DT1315-306	Plastic Shaft Collar	7
507	DT1315-307	Shaft Collar	1
508	DT1315-308	End Cap	1
509	DT1315-309	Blade Rod Washer	1
510	DT1315-310	Blade Rod	1
511	DT1315-311	Circlip, 10mm	1
120	DT1315-127	Bearing, 6000-2RS	1
600	DT1315-400	Dethatcher Blade Assembly	1
601	DT1315-401	Blade Rod Divider	13
602	DT1315-402	Scraper Tine Mount	11
603	DT1315-403	Scraper Tine	24
604	DT1315-404	Blade Rod	1
120	DT1315-127	Bearing, 6000-2RS	1
501	DT1315-301	Bearing Shaft	1
502	DT1315-302	Bearing Shaft Washer	1
508	DT1315-308	End Cap	1
511	DT1315-311	Circlip, 10mm	1
605	DT1315-405	End Scraper Tine Mount	1
606	DT1315-407	Steel Washer	1
607	DT1315-406	Bearing Shaft Washer, Thin	1

## **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 [tech-support@wenproducts.com](mailto:tech-support@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.



**THANKS FOR  
REMEMBERING**

