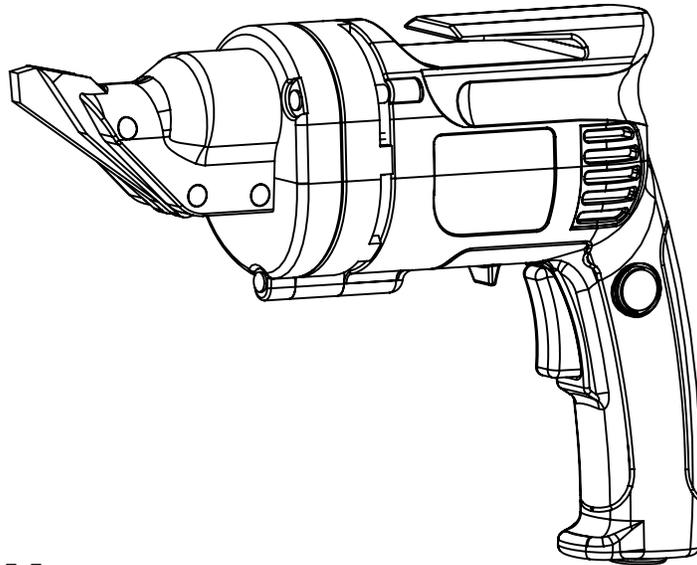




# VARIABLE SPEED ELECTRIC SHEAR



For replacement parts visit  
**WENPRODUCTS.COM**

Model # 3650  
[bit.ly/wenvideo](http://bit.ly/wenvideo)

## 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 intended purpose, you will enjoy years of safe, reliable service.

## NEED HELP? CONTACT US!

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



**800-232-1195** (M-F 8AM-5PM CST)



**techsupport@wenproducts.com**



**WENPRODUCTS.COM**



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## TECHNICAL DATA

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Model Number:	3650
Motor:	120 V, 60 Hz, 4A
Speed:	0 to 2500 strokes per minute
Maximum Cutting Capacity:	14 gauge for Sheet Metal 20 gauge for Stainless Steel
Head Swivel:	360°
Product Weight:	4.7 pounds
Product Dimensions:	11 x 3 x 8 inches

## GENERAL SAFETY RULES

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Safety is a combination of common sense, staying alert and knowing how your item works. **SAVE THESE SAFETY INSTRUCTIONS.**



**WARNING:** To avoid mistakes and serious injury, do not plug in your tool until the following steps have been read and understood.

1. **READ** and become familiar with this entire instruction manual. **LEARN** the tool's applications, limitations, and possible hazards.
2. **AVOID DANGEROUS CONDITIONS.** Do not use power tools in wet or damp areas or expose them to rain. Keep work areas well lit.
3. **DO NOT** use power tools in the presence of flammable liquids or gases.
4. **ALWAYS** keep your work area clean, uncluttered, and well lit. **DO NOT** work on floor surfaces that are slippery with sawdust or wax.
5. **KEEP BYSTANDERS AT A SAFE DISTANCE** from the work area, especially when the tool is operating. **NEVER** allow children or pets near the tool.
6. **DO NOT FORCE THE TOOL** to do a job for which it was not designed.
7. **DRESS FOR SAFETY.** Do not wear loose clothing, neckties, or jewelry (rings, watches, etc.) when operating the tool. Inappropriate clothing and items can get caught in moving parts and draw you in. **ALWAYS** wear non-slip footwear and proper safety gloves and tie back long hair.
8. **WEAR A FACE MASK OR DUST MASK** to fight the debris produced by operations.



**WARNING:** Dust generated from certain materials can be hazardous to your health. Always operate the tool in a well-ventilated area and provide for proper dust removal. Use dust collection systems whenever possible.

9. **ALWAYS** remove the power cord plug from the electrical outlet when making adjustments, changing parts, cleaning, or working on the tool.
10. **KEEP GUARDS IN PLACE AND IN WORKING ORDER.**
11. **AVOID ACCIDENTAL START-UPS.** Make sure the power switch is in the OFF position before plugging in the power cord.
12. **REMOVE ADJUSTMENT TOOLS.** Always make sure all adjustment tools are removed from the saw before turning it on.
13. **NEVER LEAVE A RUNNING TOOL UNATTENDED.** Turn the power switch to OFF. Do not leave the tool until it has come to a complete stop.
14. **NEVER STAND ON A TOOL.** Serious injury could result if the tool tips or is accidentally hit. **DO NOT** store anything above or near the tool.

## GENERAL SAFETY RULES

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15. **DO NOT OVERREACH.** Keep proper footing and balance at all times. Wear oil-resistant rubber-soled footwear. Keep the floor clear of oil, scrap, and other debris.

16. **MAINTAIN TOOLS PROPERLY.** ALWAYS keep tools clean and in good working order. Follow instructions for lubricating and changing accessories.

17. **CHECK FOR DAMAGED PARTS.** Check for alignment of moving parts, jamming, breakage, improper mounting, or any other conditions that may affect the tool's operation. Any part that is damaged should be properly repaired or replaced before use.

18. **MAKE THE WORKSHOP CHILDPROOF.** Use padlocks and master switches and ALWAYS remove starter keys.

19. **DO NOT** operate the tool if you are under the influence of drugs, alcohol, or medication that may affect your ability to properly use the tool.

20. **USE SAFETY GOGGLES AT ALL TIMES** that comply with ANSI Z87.1. Normal safety glasses only have impact resistant lenses and are not designed for safety. Wear a face or dust mask when working in a dusty environment. Use ear protection such as plugs or muffs during extended periods of operation.

21. **DO NOT USE THE TOOL** if the power switch does not turn on and off.

22. **KEEP CUTTING EDGES SHARP AND CLEAN.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

23. **ONLY USE ACCESSORIES AND BITS** rated for operation with this particular tool.

24. **MAKE SURE TO KEEP CORDS OUT OF THE WAY OF THE CUTTING PATH.**

# ELECTRICAL INFORMATION

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## GROUNDING INSTRUCTIONS

IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides the path of least resistance for an electric current and reduces the risk of electric shock. This tool is equipped with an electric cord that has an equipment grounding conductor and a grounding plug. The plug **MUST** be plugged into a matching outlet that is properly installed and grounded in accordance with **ALL** local codes and ordinances.

**DO NOT MODIFY THE PLUG PROVIDED.** If it will not fit the outlet, have the proper outlet installed by a licensed electrician.

**IMPROPER CONNECTION** of the equipment grounding conductor can result in electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, **DO NOT** connect the equipment grounding conductor to a live terminal.

**CHECK** with a licensed electrician or service personnel if you do not completely understand the grounding instructions or whether the tool is properly grounded.

**CAUTION:** In all cases, make certain the outlet in question is properly grounded. If you are not sure, have a licensed electrician check the outlet.

**WARNING:** This tool is for indoor use only. Do not expose to rain or use in damp locations.

## GUIDELINES FOR USING EXTENSION CORDS

Make sure your extension cord is in good condition. 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 nameplate 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.
4 A	18 gauge	16 gauge	14 gauge	12 gauge

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.

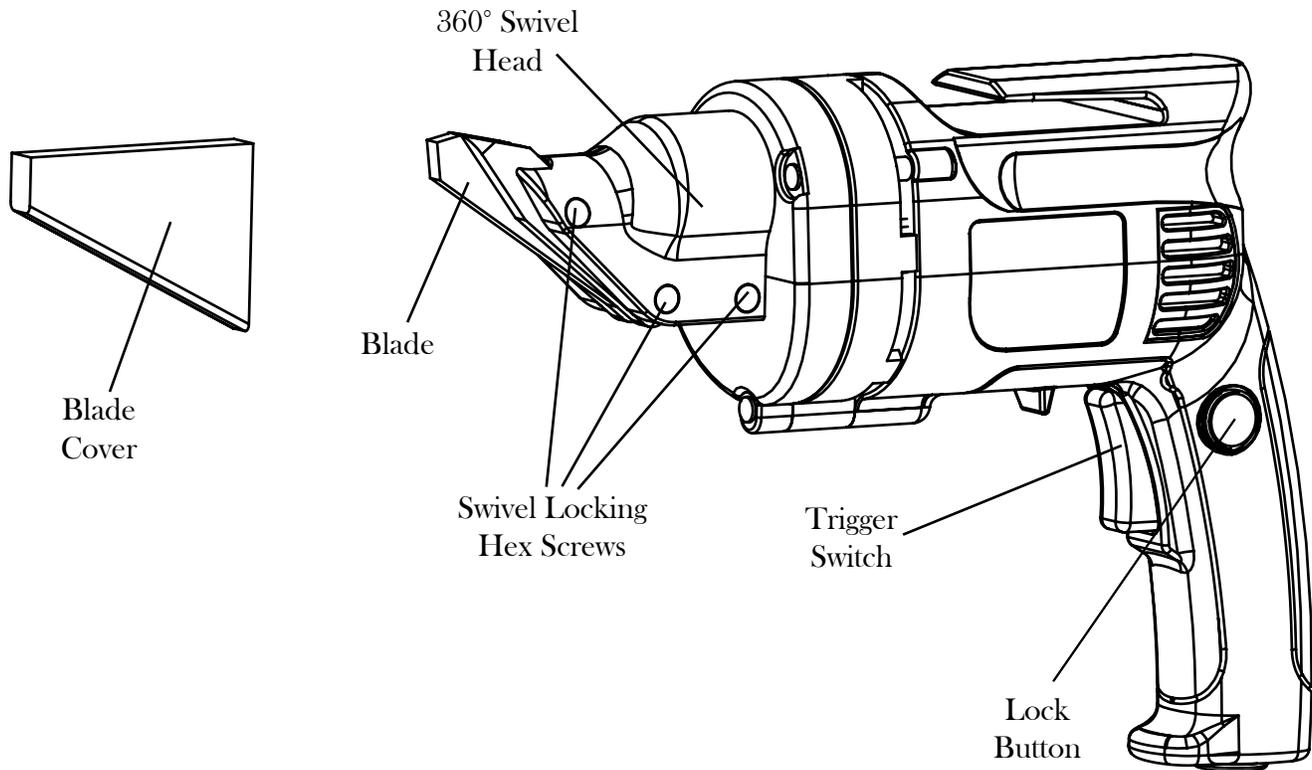
Protect your extension cords from sharp objects, excessive heat and damp/wet areas.

Use a separate electrical circuit for your tools. This circuit must not be less than a #12 wire and should be protected with a 15 A 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.

**WARNING:** This tool must be grounded while in use to protect the operator from electric shock.

## KNOW YOUR SHEAR

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## OPERATION

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**WARNING:** To avoid injury from accidental startups, turn switch OFF and remove the plug from the power source outlet before making any adjustments.

**NOTE:** Maintain tools with care. This tool requires no additional lubrication. Never use water or chemical cleaner to clean your power tool. Wipe clean with a dry cloth. Always store your power tool in a dry place away from the reach of children. Keep the motor ventilation slots clean and free of debris. Periodically clean dust and metal chips from the guard and base. Occasionally, a small spark may ignite within the ventilation slots. This is a normal result of the carbon brushes and will not damage your tool.

### **VARIABLE SPEED TRIGGER SWITCH AND LOCK BUTTON**

This WEN Variable Speed Electric Shear is equipped with a pressure sensitive variable speed trigger and a lock button for easy use. To use these:

1. Press the variable speed trigger switch to start the unit. Release the trigger to stop. Pressing the trigger down more will increase the strokes per minute of the cutting mechanism.
2. The shear can be locked into its maximum speed. To do this, press the trigger down all the way. Lock it in place by simultaneously pressing the lock switch. Doing so will lock the tool into its highest speed. To turn the tool off, squeeze and then release the trigger.

**WARNING:** Never set the tool down during operation. Always have a firm grasp on the tool when it is running.

# OPERATION

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## HOW TO SHEAR

Before cutting your workpiece, make some practice cuts on a piece of scrap material to make sure that you can adequately operate the tool.

Place the shearing jaws at the edge of the workpiece with the piece of metal running between the blades.

Squeeze the variable speed trigger switch to your preferred speed. Gradually move the blade through the material following your desired pattern. Never force the tool to do a job that it cannot handle. The scrap chunk being cut should curl up as you cut. Keep in mind that the tool as a scrap curl of approximately  $7/32$  inches, so account for this when measuring your cuts.

## ADJUSTING THE SWIVEL HEAD

The head of the shear can be rotated up to 360 degrees depending on the requirements of the workpiece at hand. To do this, unplug the machine from the power source. Next, loosen the three hex screws found along the edge of the head (Fig. A - 1, 2, 3). Once loosened, rotate the head of the unit to the desired position and retighten the hex screws. Make sure all hex screws are secure before attempting to power and operate the device.

## REPLACING THE CUTTING BLADE

After extended use, the cutting blade will become dull and need replacing. To do so:

1. Remove the three hex screws (Fig. A - 1, 2, 3) located around the outer edge of the swivel head in order to remove the head from the machine. Set them to the side for safe keeping.
2. Carefully slide out the blade three blades, taking note as to the way they are configured. Watch for the two spacers included in the blade assembly: one can be found through the neck of the middle blade while the other is threaded through the center hex screw (Fig. A - 2). Make sure not to lose these.
3. Replace the blades with the new sharpened versions. Place the spacers in as necessary. Once they have all been placed in the same configuration as the original blades, insert the spacers and the hex screws. Wait to fully tighten the hex screws until the head as been placed back onto the body of the unit.

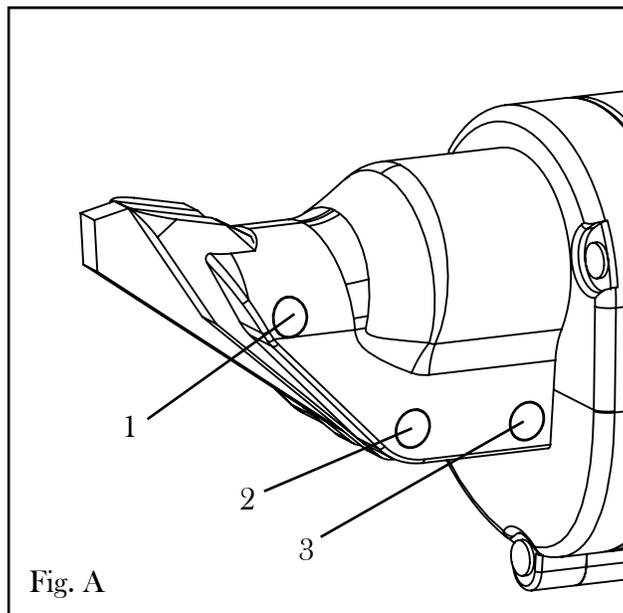


Fig. A

## MAINTENANCE

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**SERVICE:** Preventive maintenance performed by unauthorized personnel may result in misplacing of internal wires and components, possibly causing a serious hazard. We recommend that all tool service be performed by a WEN Service Center or Authorized WEN Service Station.

**TOOL LUBRICATION:** Your tool has been properly lubricated and is ready to use. No additional lubrication is required.

**CARBON BRUSHES:** The brushes in your tool have been engineered for many hours of dependable service. To maintain peak efficiency of the motor, we recommend examining the brushes every two to six months. Only genuine WEN replacement brushes designed specifically for your tool should be used. The brushes can be reached by unscrewing the four screws along the handle and removing the left half of the handle's housing.

**BEARINGS:** Bearings that become noisy (due to heavy load or abrasive material cutting) should be replaced as soon as possible to avoid overheating or motor failure.

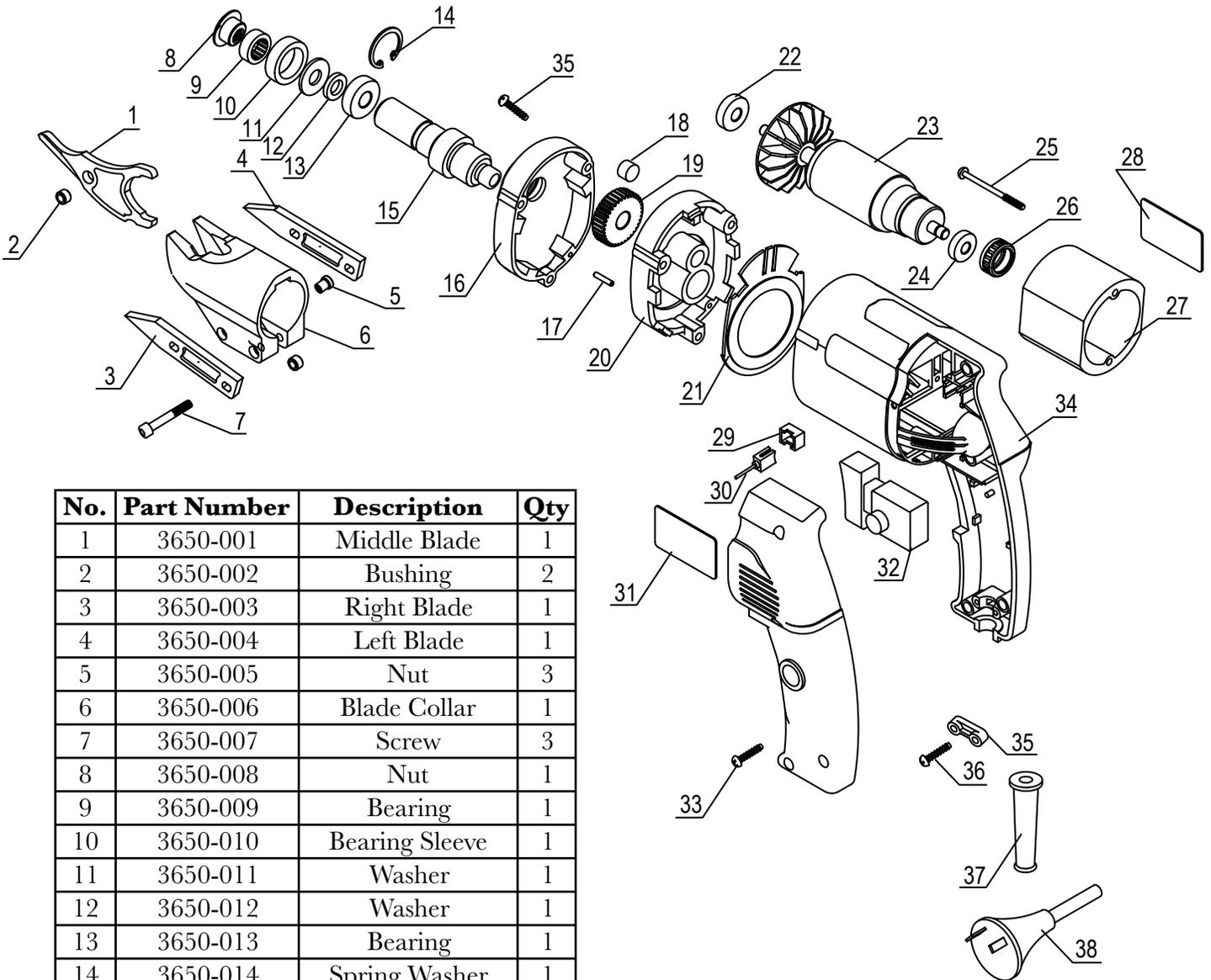


**WARNING:** To avoid accidents, always disconnect the tool from the power supply before cleaning or performing any maintenance. The tool may be cleaned most effectively with compressed dry air. Always wear safety goggles when cleaning tools with compressed air.



**WARNING:** Certain cleaning agents and solvents damage plastic parts. Some of these are: gasoline, carbon tetrachloride, chlorinated cleaning solvents, ammonia and household detergents that contain ammonia.

# EXPLODED VIEW AND PARTS LIST



No.	Part Number	Description	Qty
1	3650-001	Middle Blade	1
2	3650-002	Bushing	2
3	3650-003	Right Blade	1
4	3650-004	Left Blade	1
5	3650-005	Nut	3
6	3650-006	Blade Collar	1
7	3650-007	Screw	3
8	3650-008	Nut	1
9	3650-009	Bearing	1
10	3650-010	Bearing Sleeve	1
11	3650-011	Washer	1
12	3650-012	Washer	1
13	3650-013	Bearing	1
14	3650-014	Spring Washer	1
15	3650-015	Shaft	1
16	3650-016	Gear Box	1
17	3650-017	Pin	1
18	3650-018	Bearing	1
19	3650-019	Gear	1
20	3650-020	Gear Box Backing	1
21	3650-021	Fan Shield	1
22	3650-022	Bearing	1
23	3650-023	Rotor	1
24	3650-024	Bearing	1
25	3650-025	Screw	3
26	3650-026	Rubber Washer	1
27	3650-027	Stator	1

No.	Part Number	Description	Qty
28	3650-028	Right Label	1
29	3650-029	Carbon Brush Box	2
30	3650-030	Carbon Brush	2
31	3650-031	Left Label	1
32	3650-032	Switch	1
33	3650-033	Screw	4
34	3650-034	Housing	1
35	3650-035	Wire Collar	1
36	3650-036	Screw	2
37	3650-037	Sleeve	1
38	3650-038	Power Cord	1

## LIMITED TWO YEAR WARRANTY

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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 CONSUMER POWER TOOLS 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 for a period of two (2) years from date of purchase. Ninety days for all WEN products, if the tool is used for professional use.

**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 repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, or misrepaired by persons other than Seller or Authorized Service Center. 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. Third party vendors such as garage sales, pawn shops, resale shops, or any other secondhand merchant void the warranty included with this product. Contact [techsupport@wenproducts.com](mailto:techsupport@wenproducts.com) or 1-800-232-1195 to make arrangements for repairs and transportation.

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 warranty card and/or 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.

**THIS LIMITED WARRANTY DOES NOT APPLY TO ACCESSORY ITEMS THAT WEAR OUT FROM REGULAR USAGE OVER TIME INCLUDING BELTS, BRUSHES, BLADES, ETC.**

**ANY IMPLIED WARRANTIES SHALL BE LIMITED IN DURATION TO TWO (2) YEARS FROM DATE OF PURCHASE. SOME STATES IN THE U.S., 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 PORTABLE ELECTRIC TOOLS, BENCH POWER TOOLS, OUTDOOR POWER EQUIPMENT AND PNEUMATIC TOOLS 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.**