

CHICAGO

Electric[®] Power Tools

RECIPROCATING SAW - 4.5 AMP

Model 04095

ASSEMBLY AND OPERATING INSTRUCTIONS



Diagrams within this manual may not be drawn proportionally.
Due to continuing improvements, actual product may differ slightly from the product described herein.

Distributed exclusively by Harbor Freight Tools[®].

3491 Mission Oaks Blvd., Camarillo, CA 93011

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**Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.**

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For technical questions or replacement parts, please call 1-800-444-3353.

Manual Revised 02/05

PRODUCT SPECIFICATIONS

ITEM	DESCRIPTION
Electrical Requirements	120 Volt / 60 Hz / 4.5 Amps
Variable Speed	6 Positions / 0-2300 SPM (Strokes Per Minute)
Blade Stroke	1-3/16"
Shoe Plate Tilt	0-15°
Chuck	Pin Type
Chuck Capacity	1/2" Standard Shank
Overall Dimensions	16-1/2"L x 3-1/4"W x 5-3/4"H
Weight	6.70 Pounds



SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES

WARNING! READ AND UNDERSTAND ALL INSTRUCTIONS
Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury.
SAVE THESE INSTRUCTIONS

WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and 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 bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

ELECTRICAL SAFETY

4. **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding**

prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.

5. **Double insulated tools are equipped with 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 polarized outlet. Do not change the plug in any way.** Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
6. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
7. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
8. **Do not abuse the Power Cord. Never use the Power Cord to carry the tools or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.
9. **When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W”.** These extension cords are rated for outdoor use, and reduce the risk of electric shock.

PERSONAL SAFETY

10. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
11. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.
12. **Avoid accidental starting. Be sure the Trigger is off before plugging in.** Carrying power tools with your finger on the Trigger, or plugging in power tools with the Trigger on, invites accidents.
13. **Remove adjusting keys or wrenches before turning the power tool on.** A wrench or a key that is left attached to a moving part of the power tool may result in personal injury.
14. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.

15. **Use safety equipment. Always wear eye protection.** Dust mask, nonskid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

TOOL USE AND CARE

16. **Use clamps (not included) or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
17. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
18. **Do not use the power tool if the Trigger does not turn it on or off.** Any tool that cannot be controlled with the Trigger is dangerous and must be replaced.
19. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
20. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
21. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with a sharp cutting edge are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
22. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
23. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

SERVICE

24. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
25. **When servicing a tool, use only identical replacement parts. Follow instructions in the "Inspection, Maintenance, And Cleaning" section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

1. **Hold tool by insulated gripping surfaces when performing an operation where the cutting tools may contact hidden wiring or its own cord.** Contact with a 'live' wire will make exposed metal parts of the tool 'live' and shock the operator.
2. **Industrial applications must follow OSHA requirements.**
3. **Maintain labels and nameplates on the Saw.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
4. **Always wear ANSI approved safety impact eye goggles and heavy work gloves when using the Saw.** Using personal safety devices reduce the risk for injury. Safety impact eye goggles and heavy work gloves are available from Harbor Freight Tools.
5. **Maintain a safe working environment.** Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use a power tool in areas near flammable chemicals, dusts, and vapors. Do not use this product in a damp or wet location.
6. **When using a handheld power tool, always maintain a firm grip on the tool with both hands to resist starting torque.**
7. **Avoid unintentional starting.** Make sure you are prepared to begin work before turning on the **Saw**.
8. **Do not force the Saw.** This tool will do the work better and safer at the speed and capacity for which it was designed. Do not force the tool and do not use the tool for a purpose for which it is not intended.
9. **Always keep the extension cord away from moving parts on the tool.**
10. **WARNING! People with pacemakers should consult their physician(s) before using this product.** Electromagnetic fields in close proximity to a heart pacemaker could cause interference to or failure of the pacemaker.
In addition, people with pacemakers should adhere to the following:
 - Avoid operating power tools alone.
 - Don't use a power tool with the Trigger locked on.
 - If powered via a power cord be certain that the tool is properly grounded. A ground fault interrupt (GFCI) system is also a good precaution. This inexpensive device is a good safety measure because it prevents a sustained electrical shock.
 - Properly maintain and inspect all tools before use to avoid electrical shock.
11. **Never lay the tool down until it has come to a complete stop.** Moving parts can grab the surface and pull the tool out of your control.
12. **Never leave the saw unattended when it is plugged into an electrical outlet.** Turn off the tool, and unplug it from its electrical outlet before leaving.

13. **Always unplug the Saw from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.**
14. **WARNING!** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain chemicals known (to the State of California) to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks and cement or 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, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

(California Health & Safety Code 25249.5, et seq.)

15. Always check the Saw Blade (59, 60) to make sure it does not have missing teeth, cracks, or is bent. **Do not use a damaged Saw Blade.**
16. Check that there is enough space under and behind the workpiece for the reciprocating Saw Blade (59, 60). Make sure you will not be cutting through any electrical wires or your workbench.
17. Never attempt to remove material stuck in the moving parts of the Reciprocating Saw while the Saw is "ON" or plugged in to its electrical outlet.
18. Never cut material that is thicker than the length of the Saw Blade (59, 60).
19. Do not exert side-to-side pressure on the Saw Blade (59, 60) or attempt to cut curves. Doing so will break the Saw Blade and possibly cause pieces of the blade to fly outward, causing injury.

GROUNDING

WARNING

Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

GROUNDING TOOLS: TOOLS WITH THREE PRONG PLUGS

1. Tools marked with “Grounding Required” have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. **(See Figure A.)**
2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool’s grounding system and must never be attached to an electrically “live” terminal. **(See Figure A.)**
3. Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. **(See Figure A.)**

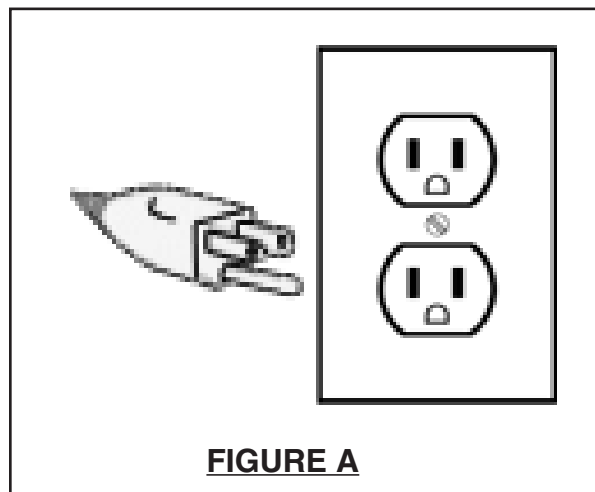
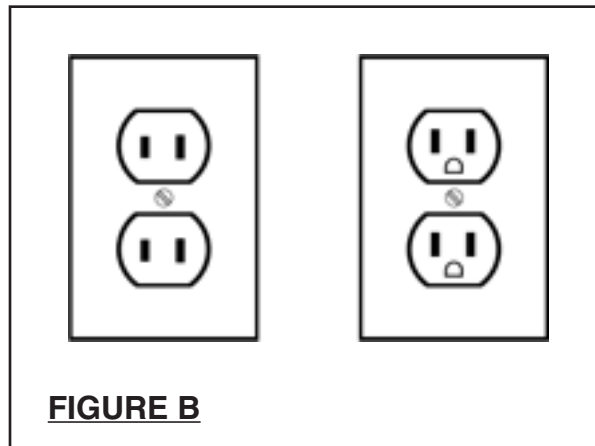


FIGURE A

DOUBLE INSULATED TOOLS: TOOLS WITH TWO PRONG PLUGS

4. Tools marked “Double Insulated” do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. **(See Figure B.)**
5. Double insulated tools may be used in either of the 120 volt outlets shown in the following illustration. **(See Figure B.)**



EXTENSION CORDS




1. **Grounded** tools require a three wire extension cord. **Double Insulated** tools can use either a two or three wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. **(See Figure C, next page.)**
3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. **(See Figure C.)**
4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. **(See Figure C.)**
5. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size. **(See Figure C.)**

6. If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate it is acceptable for outdoor use.
7. Make sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS* (120 VOLT)					
NAMEPLATE AMPERES (at full load)	EXTENSION CORD LENGTH				
	25'	50'	75'	100'	150'
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-

TABLE C * Based on limiting the line voltage drop to five volts at 150% of the rated amperes.

SYMBOLOLOGY

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
V ~	Volts Alternating Current
A	Amperes
n _o <u>xxxx</u> /min.	No Load Revolutions per Minute (RPM)

UNPACKING

When unpacking, check to make sure that the tool is intact and undamaged. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

ASSEMBLY AND OPERATING INSTRUCTIONS

NOTE: For additional information regarding the parts listed in the following pages, refer to the **Assembly Diagram on page 14.**

WARNING: Always make sure the Power Cord (44) of the Reciprocating Saw is unplugged from its electrical outlet prior to making any adjustments to the tool.

To Install A Saw Blade:

1. Select the Saw Blade (59, 60) best suited for your application. The Wood Blade (59) has a coarser tooth pitch. The Metal Blade (60) has a finer tooth pitch. Make sure to use each Blade only for its specified material. **(See Figure B.)**
2. With the Hex Key (62), loosen but do not remove the Hex Screw (6B). **(See Figure B.)**
3. Slide the selected Saw Blade (58, 60) teeth down into the Guard Plate (2) as far as possible.
4. Then, firmly retighten the Hex Screw (6B) to secure the Saw Blade (59, 60) in place. **(See Figure B.)**

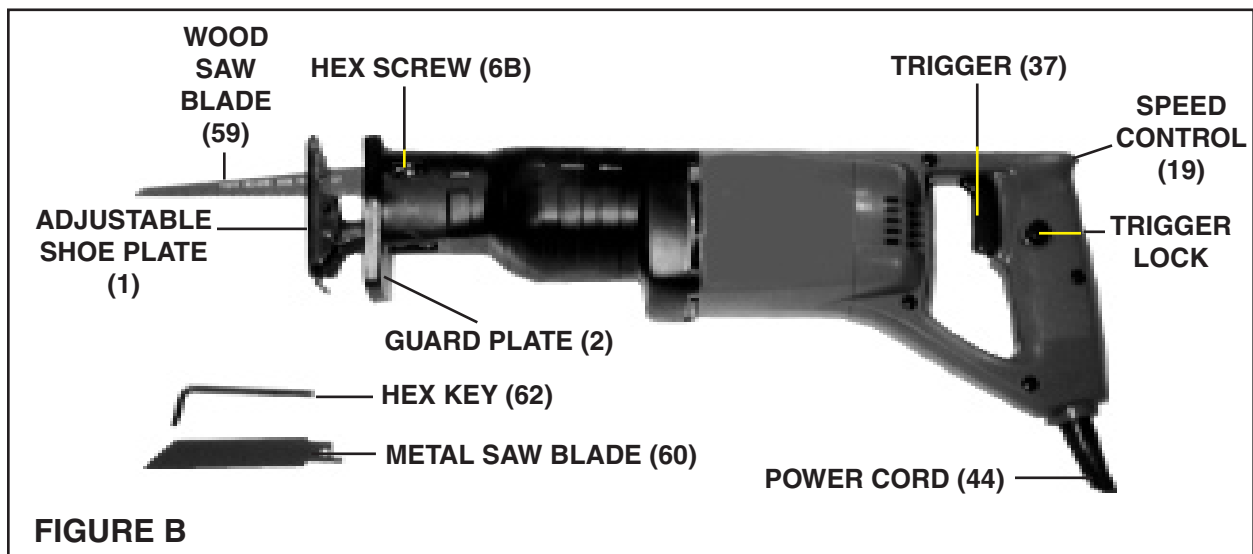


FIGURE B

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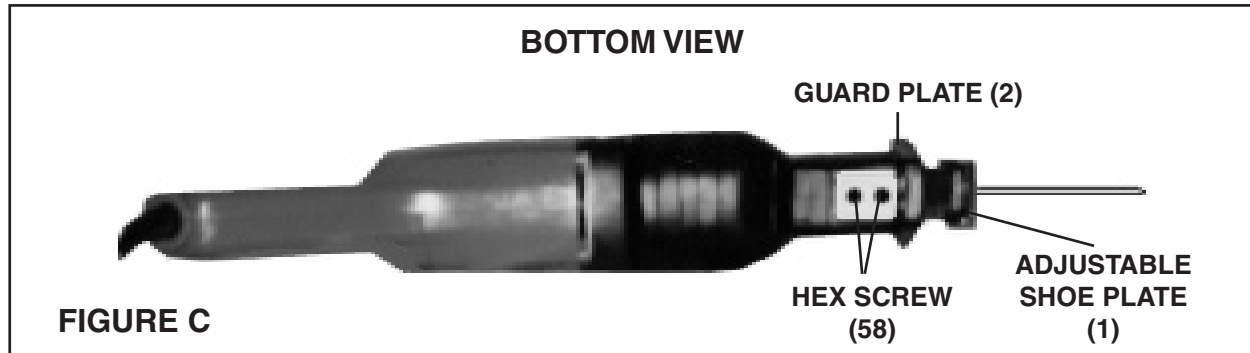
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To Adjust The Depth Of Cut:

1. To Adjust the depth of cut, loosen but do not remove the two Hex Screws (58) located on the *underside* of the Reciprocating Saw. **(See Figure C.)**
2. For a deeper cut, slide the Adjustable Shoe Plate (1) close to the Guard Plate (2). For a shallower cut, slide the Adjustable Shoe Plate further away from the Guard Plate. **(See Figure C.)**
3. Then, retighten the two Hex Screws (58). **(See Figure C.)**



Operating Instructions:

1. The Reciprocating Saw is equipped with a Trigger Lock mechanism. To operate the tool for extended periods of time squeeze and hold the Trigger (37), then press the Trigger Lock. To unlock the Trigger Lock mechanism, squeeze and release the Trigger once. **(See Figure B.)**
2. Before plugging the Reciprocating Saw into its 120 Volt, grounded, electrical outlet check to make sure the Trigger (37) is not locked in its "ON" position. Press and release the Trigger once to make sure the Trigger is unlocked and "OFF". **(See Figure B.)**
3. Plug the Reciprocating Saw into its 120 Volt, grounded, electrical outlet.
4. **NOTE:** The Reciprocating Saw has a **variable speed setting** from 0 to 2300 SPM (strokes per minute). When cutting *softer* materials, use a *faster* speed. When cutting *harder* materials, use a *slower* speed. **(See Figure B.)**
5. Hold the Reciprocating Saw firmly with both hands, then squeeze the Trigger (37) to start the Saw. **NOTE:** Do not start the Reciprocating Saw if the Saw Blade (59, 60) is in contact with anything before operation. If necessary, lift the Reciprocating Saw to free the Saw Blade before squeezing the Trigger. **(See Figure B.)**
6. If operating the Reciprocating Saw for an extended period of time, you may wish to lock the Trigger (37) in position as described in Step #1). **(See Figure B.)**
7. With the Reciprocating Saw "ON", place the Saw Blade (59, 60) against the material to be cut. Press down slightly on the Reciprocating Saw to help it cut. **(See Figure B.)**

8. Once the cutting procedure is completed, release pressure on the Trigger (37) to stop the Reciprocating Saw. If the Trigger Lock was used, squeeze and release the Trigger once to stop the Saw. Then, unplug the Saw from its electrical outlet. **(See Figure B.)**

INSPECTION, MAINTENANCE, AND CLEANING

1. **WARNING!** Make sure the Trigger of the Reciprocating Saw is in its “OFF” position and that the tool is unplugged from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.
2. **BEFORE EACH USE**, inspect the general condition of the Reciprocating Saw. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, cracked or broken Saw Blades, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use.
Do not use damaged equipment.
3. **TO CLEAN**, use a clean cloth or vacuum to remove all dust and debris from the Reciprocating Saw. Do not use any solvents.

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

PARTS LIST

Part	Description	Part	Description
1	Adjustable Shoe Plate	37	Trigger
2	Guard Plate	38	Right Body
3	Rubber Sleeve	39 **	Washer
4	Screw	40 **	Retaining Washer
5	Cover	41	Screw
6A	Hex Screw	42	Power Cord Support
6B	Hex Screw	43	Screw
7	Blade Holder	44	Power Cord
8	Felt Retainer	44B	Cord Guard
8B	Felt Pad	45	Racing Plate
9	Shock Absorber	46 **	Inducer
10	Small Cover Sheet A	47	Screw
11	Screw	48	Screw
12	Retaining Washer	49 **	Screw
14	Reciprocating Bar	50	Wingshield Ring
15	Sliding Bearing	51 *	Ball Bearing (80018)
15B	Felt Pad	52 *	Rotor
18	Left Body	53 *	Screw
19	Speed Control	54 *	Bearing Cover
20	Small Cover Sheet B	55 *	Ball Bearing (80200)
23	Large Washer	57 **	Stator
24	Roller Bearing (HKH1216)	58	Screw
26	Roller	59	Wood Saw Blade (not shown)
27	Roller Shaft	60	Metal Saw Blade (not shown)
28	Gear Wheel	61	Replacement Brushes (not shown)
29	Washer	62	4MM Hex Key (not shown)
30	Center Column	63	Rotor Assembly (Includes 51-56)
31	Machine Head	*	Only available as part of Rotor Assy. (63)
32	Carbon Brush		
33	Brush Holder	64	Stator/Lift Body Assembly (Includes 18, 46, 39, 40, 49, 57)
34	Screw		
35	Washer		
36	Screw Nut	**	Only available as part of Stator/Lift Body Assy. (64)

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

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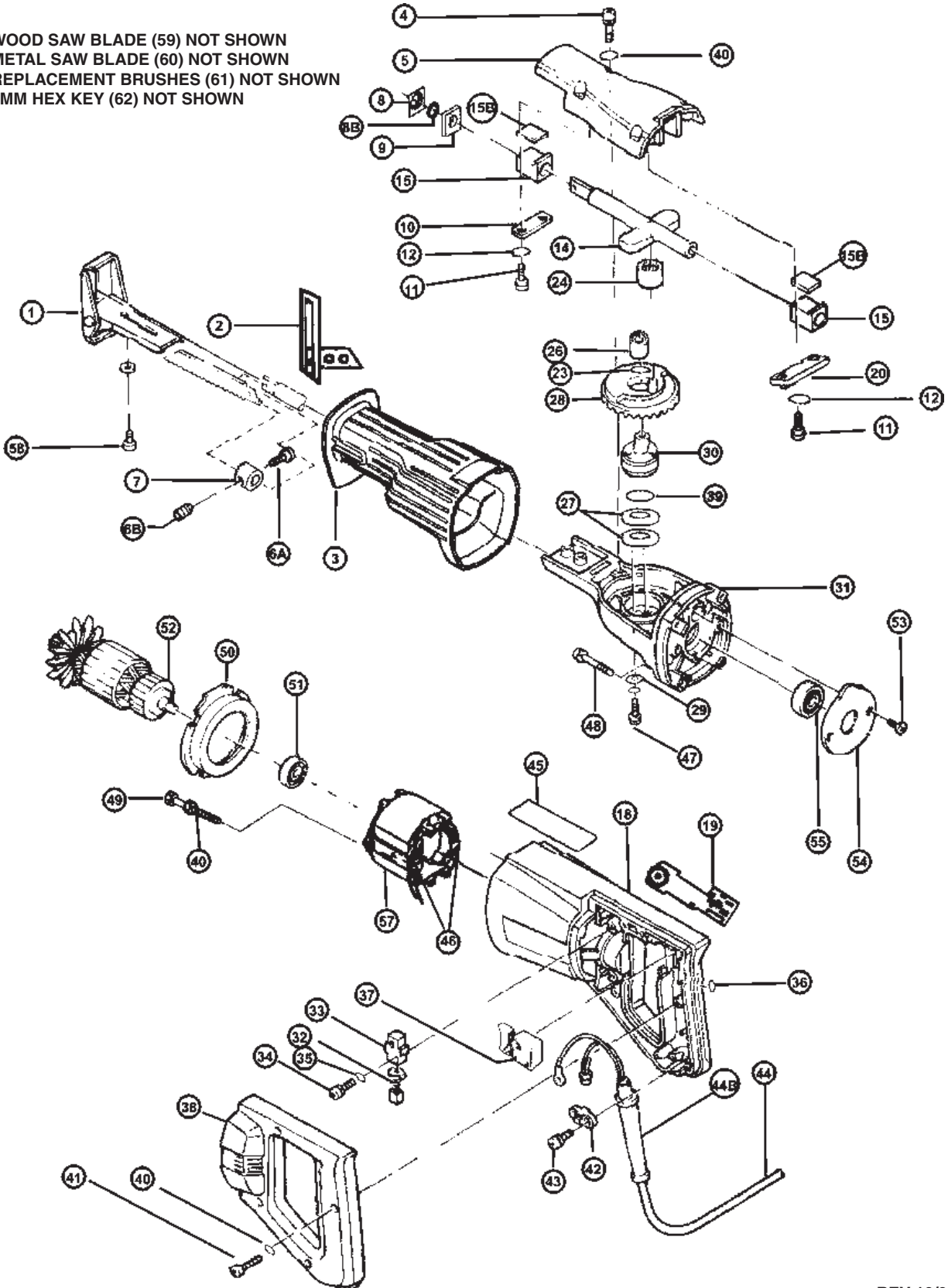
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ASSEMBLY DIAGRAM

WOOD SAW BLADE (59) NOT SHOWN
 METAL SAW BLADE (60) NOT SHOWN
 REPLACEMENT BRUSHES (61) NOT SHOWN
 4MM HEX KEY (62) NOT SHOWN



LIMITED 90 DAY WARRANTY

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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