

CHICAGO
Electric[®]Power Tools

7-1/4" CIRCULAR SAW WITH LASER

Model 95004

ASSEMBLY AND OPERATING INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.



3491 Mission Oaks Blvd., Camarillo, CA 93011
Visit our Web site at: <http://www.harborfreight.com>

**TO PREVENT SERIOUS INJURY,
READ AND UNDERSTAND ALL WARNINGS
AND INSTRUCTIONS BEFORE USE.**

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

PRODUCT SPECIFICATIONS

Item	Description
Electrical Requirements	120 V / 60 Hz / 10 Amps / 5,000 RPM Power Switch Type: Trigger Switch with Safety Thumb Lock Power Cord Type: 18AWG x 2 C, SJT / 83-1/2" Long Power Plug Type: 2-Prong, Polarized
Laser Specifications	Output Power: 1MW / Wavelength: 650NM Laser Class I / Required Battery Type: "AAA" (Qty. 2 Included)
Saw Blade Requirements	7-1/4" Diameter (Included) / Minimum 5,000 RPM Rating
Maximum Cutting Depth	2-1/2" @ 90° / 1-3/4" @ 45°
Spindle Diameter	5/8"
Base Plate Dimensions	10-5/8" L x 5-5/16" W x 3/8" H
Fence Guide Dimensions	6-1/8" L x 10-3/16" W x 1-1/16" H
Additional Features	Sealed Radial Armature Bearing / Push Button Spindle Lock Easy Access Carbon Brushes
Overall Dimensions	11-1/8" L x 9-5/8" W x 9" H
Net Weight	8.90 Pounds

CAUTION

LASER LIGHT



Max. Output: <1 mW,
Wavelength: 650 nm

CLASS II LASER PRODUCT

This product complies
with 21 CFR 1040.10
and 1040.11

CEN-TECH
3491 Mission Oaks Blvd.,
Camarillo, CA, USA, 93011

Manufacture Date: _____

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 Power Switch is off before plugging in.** Carrying power tools with your finger on the Power Switch, or plugging in power tools with the Power Switch 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 rotating 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, non-skid 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 Power Switch does not turn it on or off.** Any tool that cannot be controlled with the Power Switch 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. **Maintain labels and nameplates on the Circular Saw.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2.  **Always wear safety impact eye goggles and heavy work gloves when using the Circular Saw.** Using personal safety devices reduce the risk for injury. Safety impact eye goggles and heavy work gloves are available from Harbor Freight Tools.
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3. **Maintain a safe working environment.** Keep the work area well lit. 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.
4. **Avoid unintentional starting.** Make sure you are prepared to begin work before turning on the Circular Saw.
5. **Do not force the Circular Saw.** This tool will do the work better and safer at the speed and capacity for which it was designed. Do not force the Saw Blade into the workpiece being cut.
6.  **WARNING!** Keep hands and fingers away from cutting area and Saw Blade.
7. **Never leave the Circular Saw unattended when it is plugged into an electrical outlet.** Turn off the tool, and unplug it from its electrical outlet before leaving.

8. **Before using the Circular Saw, check to make sure the Saw Blade is properly mounted on the Spindle.** Make sure the Saw Blade is sharp, and is not cracked or bent.
9. **Industrial applications must follow OSHA guidelines.**
10. **When cutting a large workpiece, make sure its entire length is properly supported.**
11. **When using the Circular Saw, always maintain a firm grip on the tool with both hands.**
12. **Do not use the Circular Saw if it has been dropped, damaged, left outdoors, or immersed in liquid.**
13. **To avoid electrical shock, do not handle the Circular Saw or its Power Cord Plug with wet hands.**
14. **To avoid injury, always wear heavy duty work gloves when changing Saw Blades.**
15. **Make sure the workpiece is free from nails and any other foreign objects which can damage the Saw Blade.**
16. **Always check to make sure there are no electrical wires or cables in the cutting path of the Circular Saw.**
17. **Allow the Saw Blade to run up to full speed before feeding it into a workpiece.** When turning off the Circular Saw, allow the Saw Blade to stop on its own. Do not press against the Saw Blade to stop it.
18. **Turn off the Circular Saw and allow the Saw Blade to completely stop if the Saw Blade is to be backed out of an uncompleted cut.**
19. **Never attempt to remove material stuck in the moving parts of the Circular Saw while it is plugged in and running.**
20. **NEVER stare into the Laser Beam. Never aim the Laser at any person or animal.**
21. **Always ensure the Laser Beam is aimed at a sturdy workpiece without a reflective surface.** Bright, shiny, reflective workpieces are not suitable for Laser use as the surface could reflect the beam back at the operator.
22. **Always unplug the Circular Saw from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.**

KICKBACK PRECAUTIONS

23. **Make sure the workpiece is free from nails, metal rebar, and any other foreign objects that could damage the Saw Blade or cause “kickback”.**
24. **Causes and operator prevention of “kickback”:** Kickback is a sudden reaction to a pinched, bound, or misaligned Saw Blade, causing an uncontrolled Circular Saw to lift up and out from the workpiece toward the operator. When the Saw Blade is pinched or bound tightly by the kerf closing down, the Saw Blade stalls and the motor reaction drives the Circular Saw rapidly back toward the operator. If the Saw Blade becomes twisted or misaligned in the cut, the teeth at the front edge of the Saw Blade can raise the Circular Saw (walk up) toward the operator. Kickback is a result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions as given below:
 - * **Maintain control of the Circular Saw at all times.** Never allow the moving Saw Blade to rest on the workpiece without holding on to the Saw with both hands.
 - * **When the Saw Blade is binding, or when interrupting a cut for any reason, turn off the Circular Saw and hold the Saw motionless until the Saw Blade comes to a complete stop.** Never attempt to remove the Saw Blade from the workpiece or pull the Saw backward while the Saw Blade is in motion or kickback may occur. Investigate and take corrective actions to eliminate the cause of Saw Blade binding.
 - * **When restarting the Circular Saw on a workpiece, center the Saw Blade in the pre-cut kerf and check that the Saw Teeth are not engaged into the workpiece.** If the Saw Blade is binding, the Circular Saw may walk up or kickback as the Saw is restarted.
 - * **Support large panels to minimize the risk of Saw Blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel and near the outer edge of the panel.
 - * **Do not use a dull or damaged Saw Blade.** Unsharpened or improperly set Saw Blades produce a narrow kerf causing excessive friction, Saw Blade binding and kickback.
 - * **Push the Saw Blade past the workpiece prior to release.**
 - * **Make sure to check the Blade Guard for proper operation.** Never disable the Guard. Do not use the Circular Saw if the Guard assembly does not operate properly. Before each use, make sure the Blade Guard does not touch the Saw Blade.

25. **This Circular Saw is designed for use only with a 7-1/4" diameter Saw Blade having a 5/8" diameter arbor and rated at a minimum of 5,000 RPM. Do not use any other rated blade.**
26.  **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.)*
27.  **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 or failure of the pacemaker. In addition, people with pacemakers should adhere to the following: Avoid operating power tools alone. Do not use a power tool with the Power Switch locked on. If powered via a power cord, make sure 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 sustained electric shock. Properly maintain and inspect all tools before use to avoid electric shock.
28.  **WARNING!** The warnings and cautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

SAVE THESE INSTRUCTIONS

GROUNDING



WARNING!

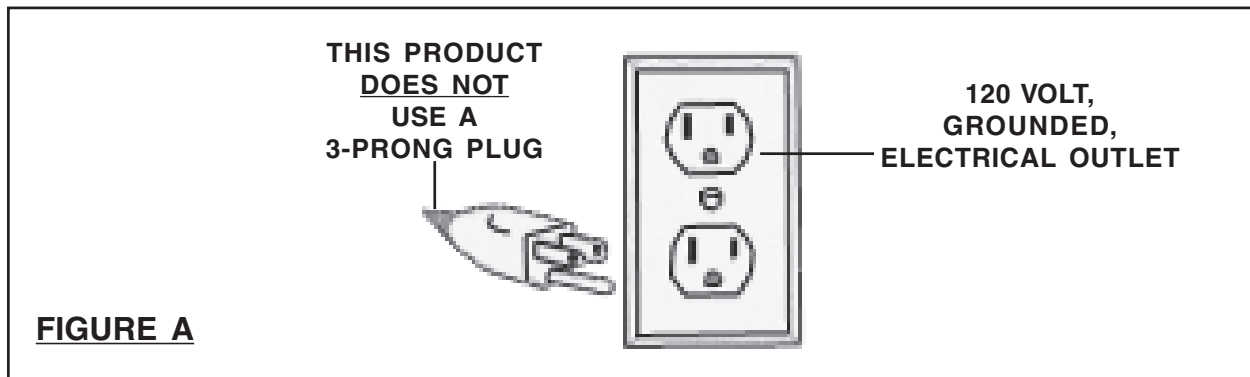
Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use 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

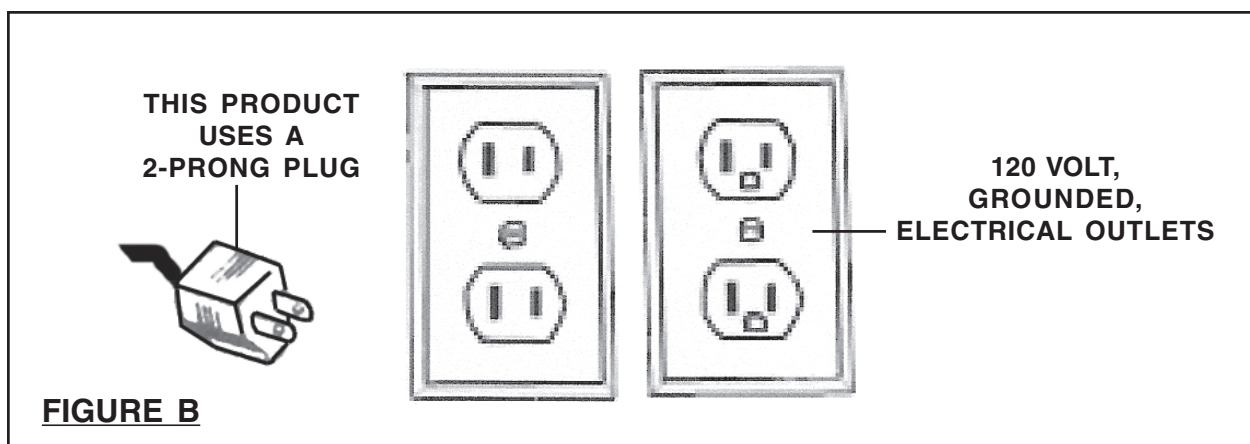
resistance path to carry electricity away from the user, reducing the risk of electric shock. **(See Figure A.)**

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.)**



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.)

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 Feet	50 Feet	75 Feet	100 Feet	150 Feet
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	-	-	-
FIGURE C * Based on limiting the line voltage drop to five volts at 150% of the rated amperes.					

SYMBOLLOGY

	Double Insulated
	Canadian Standards Association
	Underwriters Laboratories, Inc.
	Volts Alternating Current
	Amperes
	No Load Revolutions per Minute (RPM)

FIGURE D

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts List on page 18** are included. 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.

PRODUCT FEATURES

1. **Power Switch (67):** The Power Switch is operated manually simply by squeezing the Switch to turn on the Circular Saw and releasing pressure on the Switch to turn off the Circular Saw. **(See Figure E.)**
2. **Switch Lock:** The Circular Saw is equipped with a Power Switch Lock mechanism. To operate the tool for extended periods of time squeeze and hold the Power Switch (67), then depress the Switch Lock. To unlock the Power Switch, squeeze and release the Power Switch once. **(See Figure E.)**

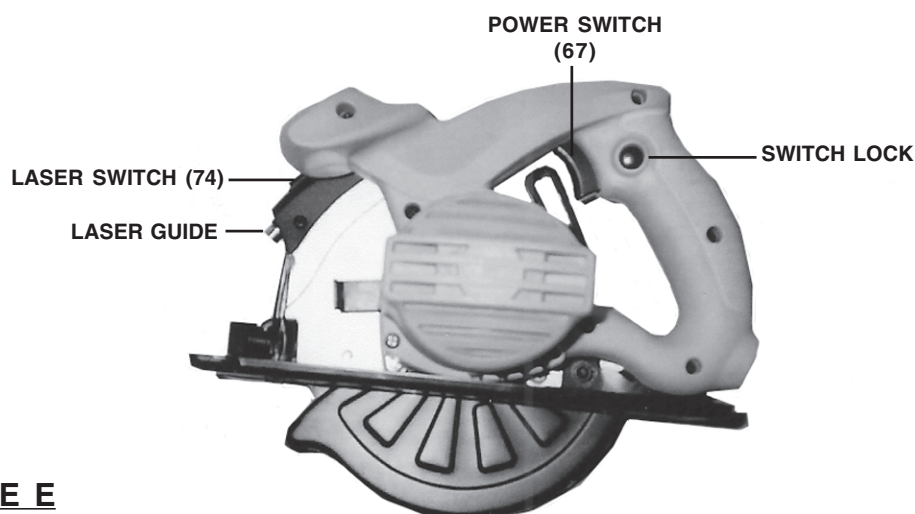



FIGURE E

3. **Laser Switch (74):** The Circular Saw is equipped with a Laser Guide that is designed to aid alignment of the Saw Blade with the cutting line on the workpiece. To operate, push the Laser Switch to its “**ON**” or “**OFF**” positions. (See Figure E.)

ASSEMBLY INSTRUCTIONS

To Install A Saw Blade:

1.  **CAUTION!** Always make sure the Power Switch (67) of the Circular Saw is in its “**OFF**” position and the tool is unplugged from its electrical outlet prior to adding any accessories or making adjustments to the tool. (See Figure E.)
2. **To avoid accidental cuts to hands and fingers, always wear heavy duty work gloves when installing Saw Blades (20).**
3. **IMPORTANT:** When installing a Saw Blade (20), make sure the teeth of the Saw Blade point upward and that the direction of the **arrow** shown on the Saw Blade matches the direction of the **arrow** shown on the Blade Housing (11). (See Figure F.)

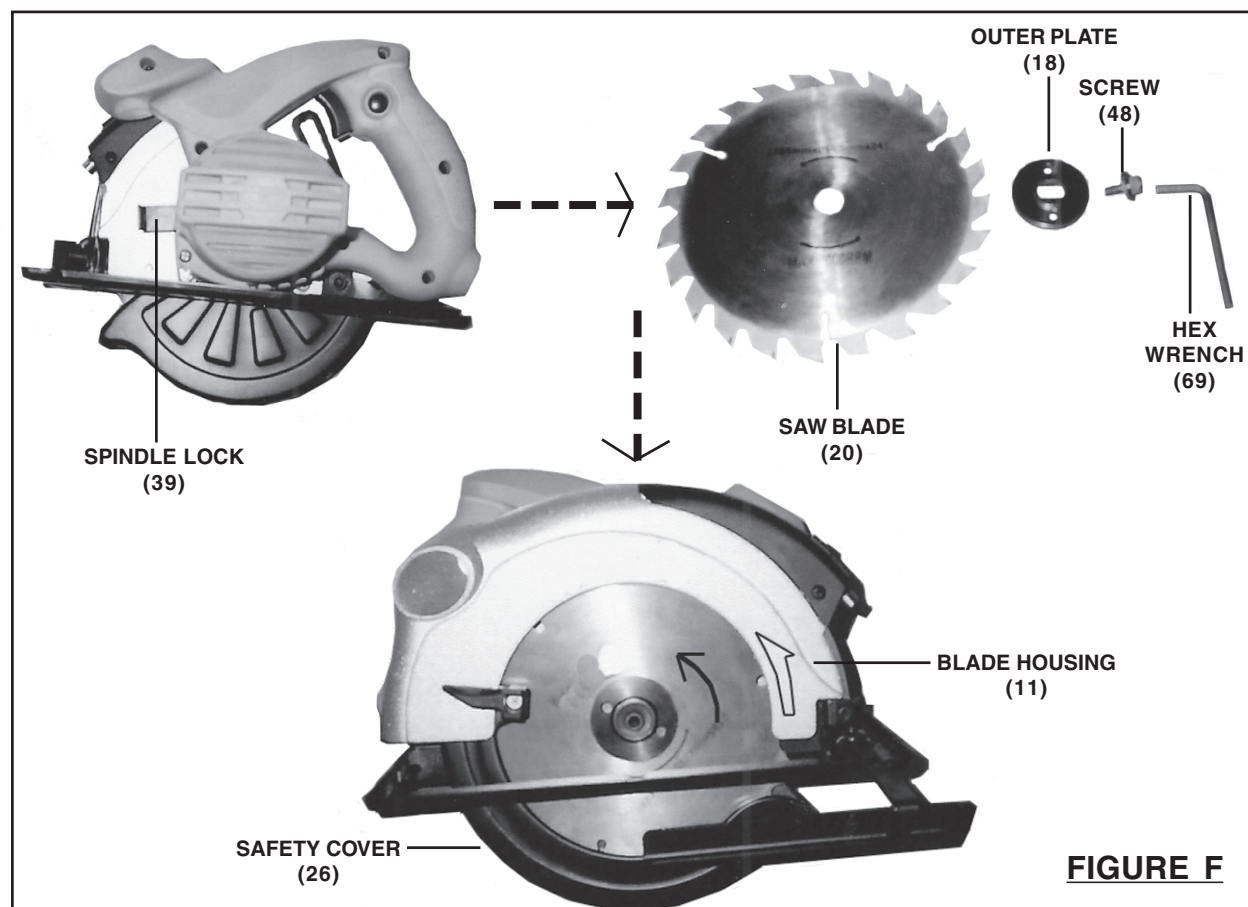
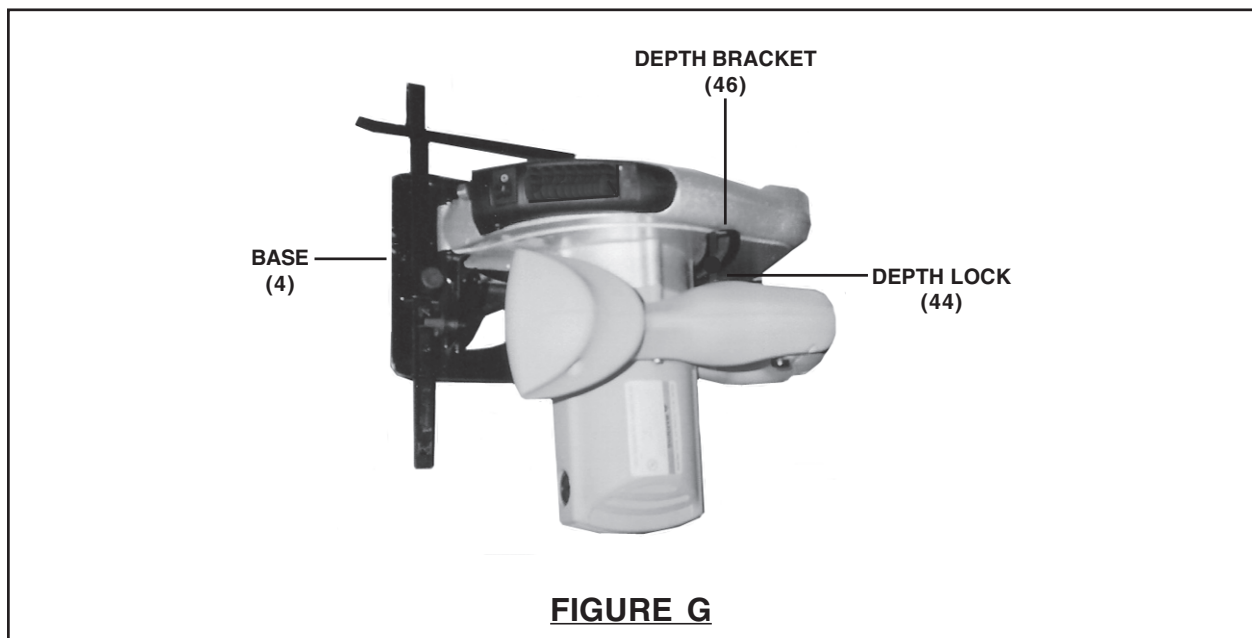


FIGURE F

4. Depress the Spindle Lock (39) to hold the Spindle stationary. **(See Figure F.)**
5. Use the accessory Hex Wrench (69) to unscrew and remove the Screw (48). **(See Figure F.)**
6. Remove the Outer Plate (18). **(See Figure F.)**
7. Raise up on the Safety Cover (26). Then, install the Saw Blade (20) on the Spindle of the tool. **(See Figure F.)**
8. Release the Safety Cover (18), and allow it to return to its original position. **(See Figure F.)**
9. Re-install the Outer Plate (18). While depressing the Spindle Lock (39), use the accessory Hex Wrench (69) to *firmly* re-tighten the Screw (48) back into the Spindle to secure the Saw Blade (20) in place. **(See Figure F.)**

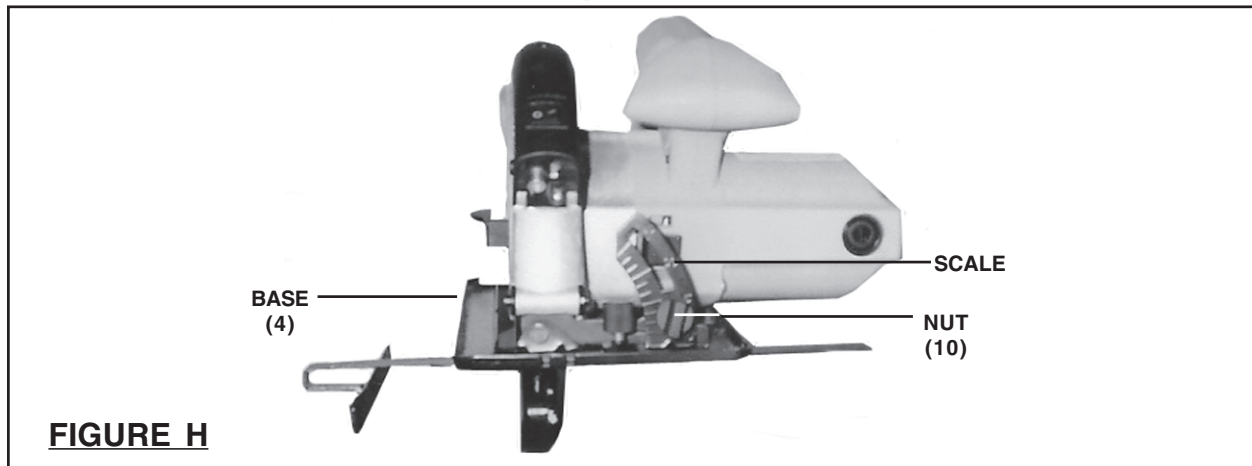
To Adjust The Depth Of Cut:

1. The depth of cut may be adjusted to a maximum of 2-1/2" at 90 degrees and 1-3/4" at 45 degrees.
2. To adjust the depth of cut, raise the Depth Lock (44) to its unlocked position. Raise the Saw body up from the Base (4), and set the depth of cut using the Depth Bracket (46) provided. Then, lower the Depth Lock to its locked position. **NOTE:** Always add 1/8" to your depth of cut so the Saw Blade (20) can cut through the material. **(See Figure G.)**



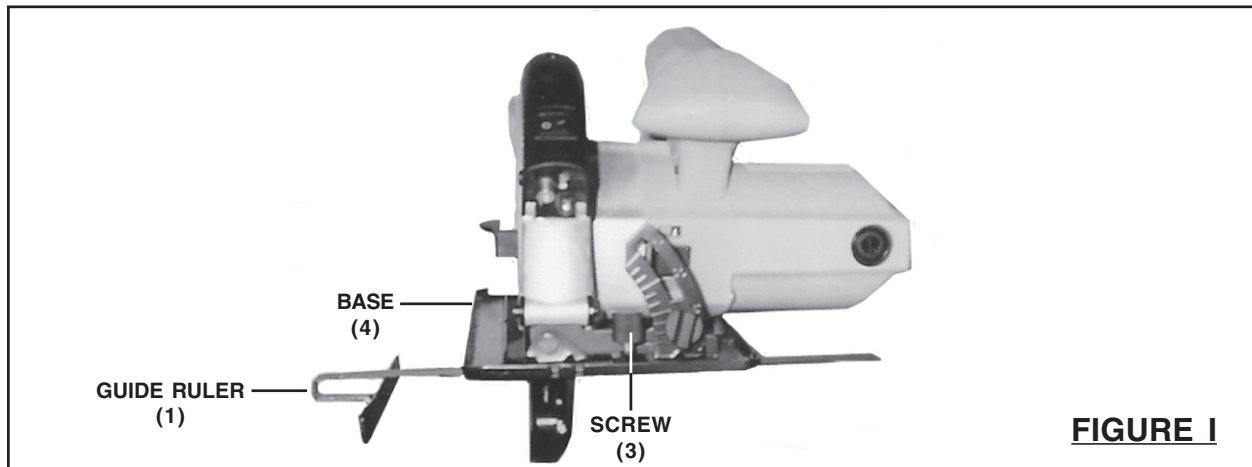
To Adjust The Angle Of Cut:

1. The angle of cut may be adjusted from 90 degrees to 45 degrees.
(See Figure H.)
2. To adjust the angle of cut, loosen the Nut (10). Rotate the Base (4) to set the angle, using the Scale provided. Then, retighten the Nut to lock the Base in position. **(See Figure H.)**




To Adjust The Guide Ruler:

1. The Guide Ruler (1) is used for making cut parallel to a workpiece edge at a chosen distance. **(See Figure I.)**
2. To use the Guide Ruler (1), loosen the Screw (3). Slide the arm of the Guide Ruler through the openings on each side of the Base (4) and achieve the desired cutting distance using the Scale. Then, retighten the Screw to lock the Guide Ruler in position. **NOTE:** The Guide Ruler can be used from both sides of the Base. **(See Figure I.)**




BASIC OPERATING INSTRUCTIONS

1.  **CAUTION! Always use safety equipment.** Wear ANSI approved safety impact eye goggles and heavy duty work gloves when operating the Jigsaw. Also, a dust mask and hearing protection must be used for appropriate conditions.
2. **IMPORTANT:** Always secure the workpiece in place, using a vise or clamps (not included).
3. Make sure the Power Switch (67) is in its “**OFF**” position and the Power Cord/ Plug (68) is unplugged from the electrical outlet.
4. If necessary, make adjustments to the depth of cut and angle of cut.
5. Once all adjustments are made, plug the Power Cord/Plug (68) into the nearest 120 volt, grounded, electrical outlet.
6. Position the Saw Blade (20) about 1/2” from the beginning cut line on the workpiece. Do not allow the Saw Blade to come in contact with the workpiece.
7. Turn the Laser Switch (74) to its “**ON**” position, and align the laser beam with the cut line on the workpiece. **Note:** Kerf will be centered on laser beam.
8. Squeeze the Power Switch (67) to turn on the Circular Saw. If operating the Saw for an extended period of time, you may wish to depress the Switch Lock to lock the Power Switch in its “**ON**” position.
9. Allow the Saw Blade (20) to rotate at full speed before slowly feeding it into the workpiece.
10. Make sure to hold the Circular Saw firmly with both hands to avoid kickback. Then, finish making the cut.
11. When finished, release the Power Switch (67) to stop the Circular Saw. Wait until the Saw Blade (20) stops completely. Turn the Laser Switch (74) to its “**OFF**” position. Then, remove the Circular Saw from the workpiece.
12. Make sure to store the Circular Saw in a clean, dry, safe location out of reach of children and other unauthorized people.

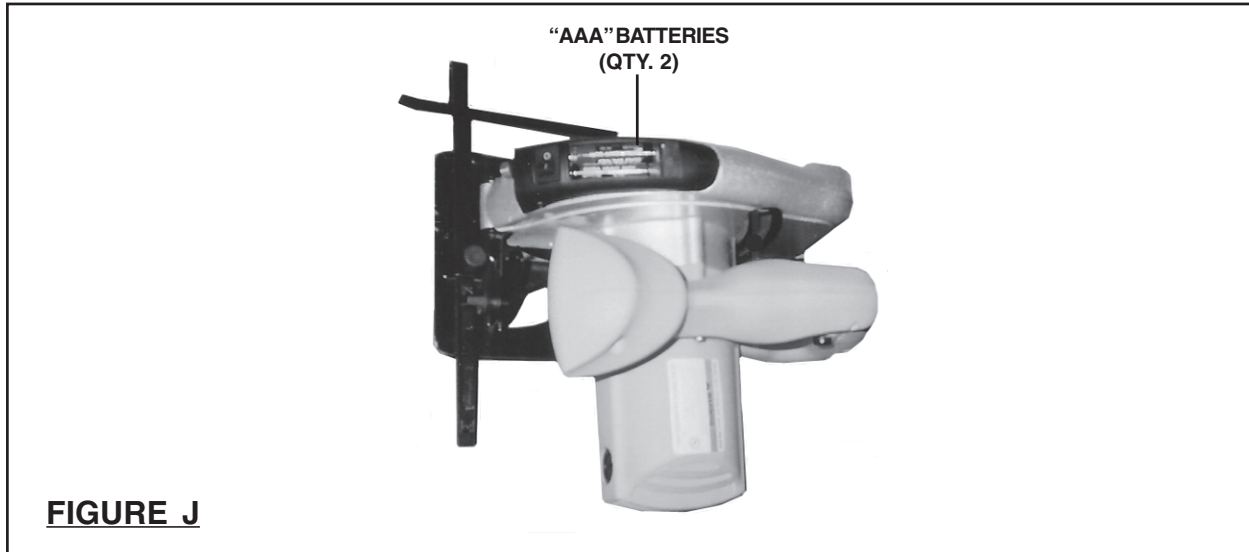
TROUBLESHOOTING

Problem	Possible Solution
Circular Saw will not run, or runs with insufficient power.	<ol style="list-style-type: none"> 1. Make sure to firmly squeeze the Power Switch. 2. Make sure the Power Cord/Plug is plugged into a working, 120 volt, grounded, electrical outlet. 3. Allow the tool to completely cool in the event of overheating. Then, resume cutting. 4. Have a qualified service technician inspect the Carbon Brushes for excessive wear or debris build-up.
Quality of cut is poor.	<ol style="list-style-type: none"> 1. Make sure Saw Blade is sharp and undamaged. 2. Make sure Saw Blade is properly and securely installed in Circular Saw. 3. Do not force the Saw Blade. Gradually, feed the Saw Blade into the workpiece.
Laser Guide will not illuminate.	<ol style="list-style-type: none"> 1. Make sure the Laser Switch is in the "ON" position. 2. Turn the Laser Guide to its "OFF" position. Then, make sure the Laser Guide is free of excessive dirt and debris. 3. Make sure the two "AAA" Batteries are fully charged and undamaged. 4. Have a qualified service technician inspect the Laser Guide for damage.
The Power Switch does not turn on or turn off the tool.	<ol style="list-style-type: none"> 1. Immediately unplug the Circular Saw from its electrical outlet. Do not use the tool until a qualified service can inspect the tool for damage or defects.


INSPECTION, MAINTENANCE, AND CLEANING

1.  **WARNING!** Make sure the Power Switch (67) of the Circular Saw is in its "OFF" position and 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 Circular Saw. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged Saw Blade, damaged electrical wiring, 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. **Before each use**, inspect the Saw Blade (20). Using a dull Saw Blade will cause excessive wear on the Motor of the Circular Saw and will not produce a satisfactory cut. Replace with a new Saw Blade when needed.
4. **To replace the Batteries for the Laser:** The Laser Guide requires the use of two "AAA" Batteries. To replace the Batteries, open the Laser Plate Cover (17) to expose the Batteries. Remove the old Batteries. Then, install two fully

charged “AAA” Batteries, making sure to match the poles (+ and --) as shown in the Battery Compartment. Then, close the Laser Plate Cover (17).
(See Figure J.)



5. **To clean or replace the Carbon Brushes (60):** It may become necessary at sometime to clean or replace the two Carbon Brushes when the Motor performance decreases, or stops working completely. The Carbon Brushes are located on each side of the Housing (57). **(See Assy. Diagram.)**
 - A. Unscrew and remove the two Carbon Brush Covers (61) located on each side of the Housing (57). **(See Assy. Diagram.)**
 - B. Remove the two Carbon Brushes (60) from the two Brush Holders (59). **(See Assy. Diagram.)**
 - C. If the Carbon Brushes (60) are worn down more than 1/2, replace *both* Carbon Brushes. If, however, the Carbon Brushes are just dirty they may be cleaned by rubbing them with a pencil eraser. Note: Reinstall in the same position/orientation that they were in before being removed. **(See Assy. Diagram.)**
 - D. When installing the Carbon Brushes (60), make sure the carbon portion of the Carbon Brushes contact the motor's Stator (56) and that the springs face away from the Stator. Also, make sure the springs operate freely. **(See Assy. Diagram.)**
 - E. After replacement or cleaning, replace the two Carbon Brush Covers (61). **(See Assy. Diagram.)**
 - F. **NOTE:** New Carbon Brushes (60) tend to arc or spark when first used until they wear and conform to the motor's Stator (56). **(See Assy. Diagram.)**

6. **To clean the exterior parts of the Circular Saw, use only a clean cloth and mild detergent to clean the body of the Saw. Do not immerse any electrical part of the tool in any liquids.**
7.  **CAUTION! All maintenance, service, or repairs not mentioned in this manual must only be performed by a qualified service technician.**

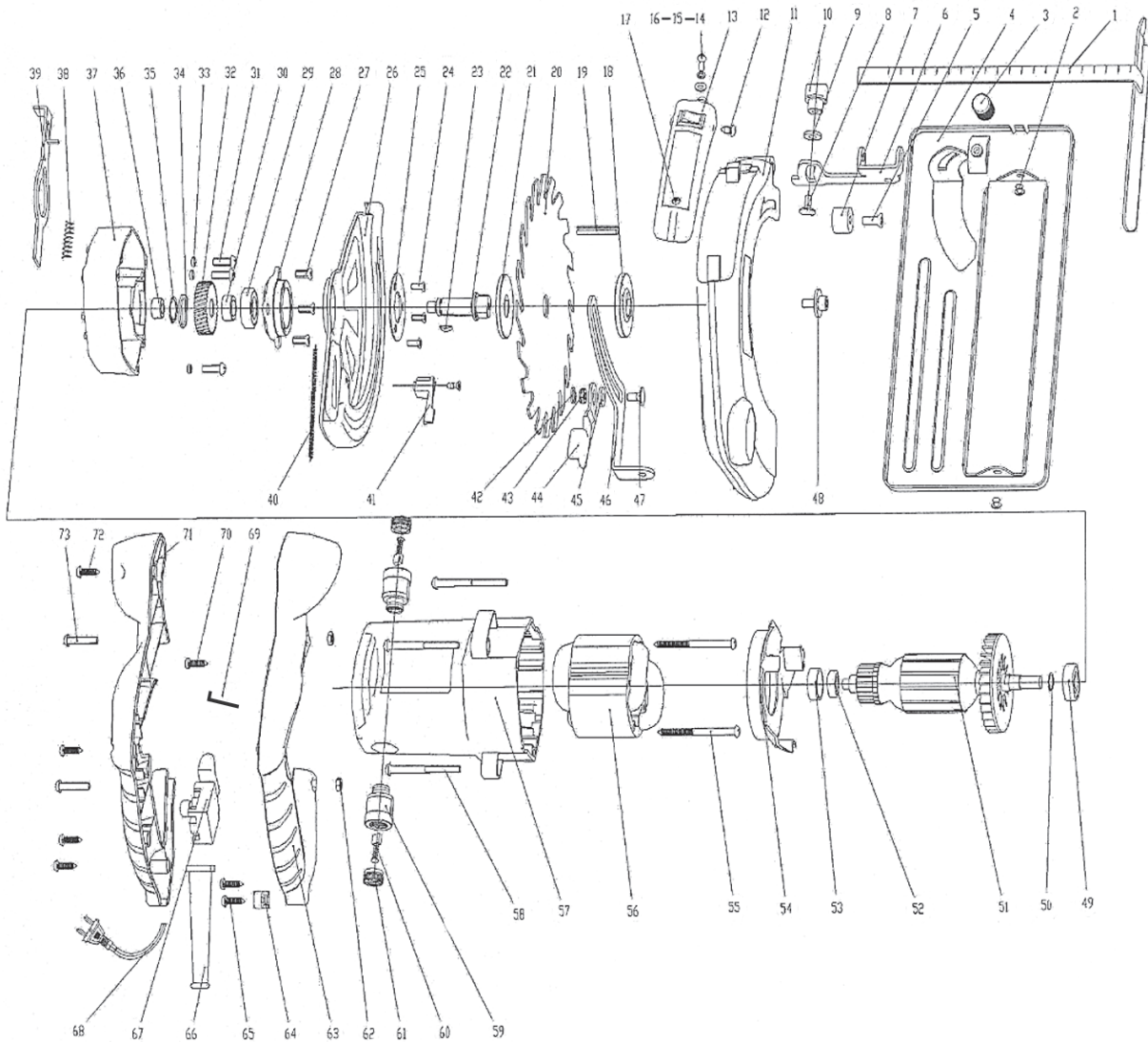
PLEASE READ THE FOLLOWING CAREFULLY

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PARTS LIST

Part #	Description	Qty.	Part #	Description	Qty.
1	Guide Ruler	1	38	Spring	1
2	Rivet	2	39	Spindle Lock	1
3	Screw	1	40	Spring	1
4	Base	1	41	Safety Cover Wrench	1
5	Screw (M6 x 16)	1	42	C-Ring (#10)	1
6	Angle Bracket	1	43	Nut (M6)	1
7	Orientation Block	1	44	Depth Lock	1
8	Screw (M6 x 10)	1	45	Large Washer	1
9	Washer	1	46	Depth Bracket	1
10	Nut (M6)	1	47	Screw (M6 x 14)	1
11	Blade Housing	1	48	Screw (M6 x 16)	1
12	Screw	1	49	Bearing (6000Z)	1
13	Laser Plate	1	50	C-Ring (#12)	1
14	Screw	1	51	Rotor	1
15	Spring Washer	1	52	Bearing (607Z)	1
16	Washer	1	53	Bearing Cover	1
17	Laser Plate Cover	1	54	Air Baffle Plate	1
18	Outer Plate	1	55	Screw (ST4.8 x 60)	2
19	Spring Pin (6 x 40)	1	56	Stator	1
20	Saw Blade	1	57	Housing	1
21	Inner Plate	1	58	Screw (M5 x 58)	3
22	Spindle	1	59	Carbon Brush Holder	2
23	Key (3 x 10 x 7)	1	60	Carbon Brush	2
24	Screw (M4 x 8)	4	61	Carbon Brush Cover	2
25	Safety Cover Plate	1	62	Nut (M5)	2
26	Safety Cover	1	63	Right Handle	1
27	Screw (M5 x 8)	3	64	Cord Clamp	1
28	Bearing (6001Z)	1	65	Screw (ST4.2 x 14)	2
29	Bearing Holder	1	66	Cord Sleeve	1
30	Orientation Steel Cover	1	67	Power Switch	1
31	Screw (M5 x 14)	3	68	Power Cord/Plug	1
32	Gear	1	69	Hex Wrench	1
33	Spring Washer (#5)	4	70	Screw (ST4.2 x 12)	1
34	Wave Spring Washer (#12)	1	71	Left Handle	1
35	C-Ring (#12)	1	72	Screw (ST\$.2 x 16)	4
36	Oilless Bearing	1	73	Screw (M5 x 25)	2
37	Gear Box	1	74	Laser Switch	1

ASSEMBLY DIAGRAM



NOTE:

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

WARRANTY

