



Owner's Manual

High Speed Circular Saw 80161



CAUTION:

Before using this circular saw or any of its accessories, read this manual and follow all Safety Rules and Operating Instructions.

- **General Safety Rules**
- **Specific Safety Rules and Symbols**
- **Functional Description**
- **Assembly**
- **Operation**
- **Maintenance**
- **Accessories**

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TOLL FREE HOTLINE 1-866-458-2472

WARRANTY

ONE YEAR LIMITED WARRANTY

For one year from the date of purchase of this GreatNeck® product you find any defect in material or workmanship, through normal usage, either return it to the place of purchase, or send it to GreatNeck® Tools LLC. for repair or replacement at our discretion. In order to obtain this service send your tool and proof of purchase, transportation pre-paid, to **GreatNeck® Tools LLC Q.A. Dept, 3580 E. Raines Rd. #3, Memphis, TN 38118**. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

This product is not guaranteed if used for industrial or commercial purposes.

Distributed by GreatNeck Tools LLC, Mineola, NY 11501
Rev 1/11

SPECIFICATIONS

Rating	120 V 60 Hz AC
Amperes	11 A
Blade speed	5,400 RPM (no load)
Blade	7-1/4" with 24 carbide teeth 5/8" arbor
Maximum cut depth @ 90°	2 1/2" (64 mm)
Maximum cut depth @ 45°	1 13/16" (46 mm)
Cutting angle	0–45°

POWER TOOL SAFETY

⚠ WARNING: To avoid electrical hazards, fire hazards or damage to the circular saw, use proper circuit protection.

The circular saw is wired at the factory for 110–120 V operation. It must be connected to a 110–120 V, 15 A time delayed fuse or circuit breaker. To avoid shock or fire, replace power cord immediately if it is worn, cut or damaged in any way.

ALWAYS WEAR EYE PROTECTION THAT CONFORMS WITH CSA REQUIREMENTS or ANSI SAFETY STANDARD Z87.1



FLYING DEBRIS can cause permanent eye damage. Prescription eyeglasses ARE NOT a replacement for proper eye protection.



WARNING: Non-compliant eyewear can cause serious injury if broken during operation of a power tool.



WARNING: Always wear a dust mask designed for use when sawing.



WARNING: Some dust created by power sanding, sawing, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. 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 level of 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 dust masks that are specially designed to filter out microscopic particles.

SAVE THESE INSTRUCTIONS FOR REFERENCE

POWER TOOL SAFETY

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 personal injury.

WORK AREA

Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.

Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gas or dust. Power tools create sparks which may ignite the dust or fumes.

Keep bystanders, children and visitors away while operating the tool. Distractions can cause you to lose control.

ELECTRICAL SAFETY

Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized plug 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-prong grounded power cord and grounded power supply system.

Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is increased risk of electric shock if your body is grounded.

Do not expose power tools to rain or wet conditions. Water entering the power tool will increase the risk of electric shock.

Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.

When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W”. These cords are rated for outdoor use and reduce the risk of electric shock.

PERSONAL SAFETY

Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use the 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.

Dress properly. Do not wear loose clothing or jewelry.

Contain long hair. Keep your hair, clothing and gloves away from moving parts. Loose clothing, jewelry or long hair can be caught in moving parts.

Avoid accidental starting. Be sure switch is OFF before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch turned ON invites accidents.

Remove adjusting keys or wrenches before turning the tool ON. A wrench or key that is left attached to a rotating part of the tool may result in personal injury.

SAVE THESE INSTRUCTIONS FOR REFERENCE

POWER TOOL SAFETY

Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.

Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat or hearing protection must be used under applicable conditions.

TOOL USE AND CARE

Use clamps or other practical method to secure and support the workpiece on a stable platform. Holding the work by hand or against your body is unsafe and may lead to loss of control.

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.

Do not use the tool if the switch does not turn it ON or OFF. Any tool that cannot be controlled with the switch is dangerous and must be repaired.

Disconnect the 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.

Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.

Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.

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.

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

Tool service must be performed only by qualified personnel. Service or maintenance performed by unqualified personnel could result in risk of injury.

When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance 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

⚠ WARNING: For your safety, do not plug in your circular saw until you have carefully read and understood this Owner's Manual.

ALWAYS WEAR EYE PROTECTION THAT CONFORMS WITH CSA REQUIREMENTS or ANSI SAFETY STANDARD Z87.1

FLYING DEBRIS can cause permanent eye damage. Prescription eyeglasses ARE NOT a replacement for proper eye protection.



SAVE THESE INSTRUCTIONS FOR REFERENCE

SPECIFIC SAFETY RULES

⚠ WARNING: Non-compliant eyewear can cause serious injury if broken during operation of a power tool.

⚠ WARNING: Always use a dust mask and hearing protection when sawing.

Use only in well ventilated areas. Using personal safety devices and working in a safe environment reduces risk of injury.

Hold the tool by insulated gripping surfaces when performing an operation where the saw blade 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.

Always hold the tool with two hands. Attempting to control the tool with only one hand is dangerous. It could result in loss of control and serious injury.

Always make sure the work surface is free from nails and other foreign objects. Cutting into a nail can cause the blade and the tool to jump and damage the blade.

Never hold the workpiece in one hand and the tool in the other hand when sawing. Never place your hands near or below the cutting surface. Clamping the material and guiding the tool with both hands is much safer.

Always make sure the blade guard is functioning properly. A broken guard may cause serious injury.

Never lay workpiece on hard surfaces like concrete, stone, etc. The protruding blade may cause tool to jump.

⚠ DANGER: To avoid injury from accidental starting, always remove the plug from the power source before making any adjustments and before installing or removing a saw blade.

When replacing the blade, make sure the replacement blade is 7¼" in diameter and is rated for at least 7,000 RPM. Installing an incorrect blade will result in possible injury and poor cutting action.

After changing a blade or making adjustments, make sure the blade clamp screw is securely tightened. Loose blades and adjustment devices will be violently thrown.

Never use dull or damaged blades. Sharp blades must be handled with care. Damaged blades can snap during use. Dull blades require more force to cut the workpiece, possibly causing the blade to break.

Never touch the blade during or immediately after use. After use the blade is too hot to be safely touched with bare hands.

SAVE THESE INSTRUCTIONS FOR REFERENCE

EXTENSION CORD GUIDELINES

Make sure your extension cord is the proper size. When using an extension cord, be sure to use one heavy enough to carry the current the tool 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 use according to cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number the heavier the cord.

MINIMUM GAUGE (AWG) EXTENSION CORDS (120 V use only)					
Ampere rating		Total length in feet			
More than	Not more than	25'	50'	100'	150'
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not Applicable	

Be sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it. Protect your extension cord from sharp objects, excessive heat and damp or wet areas.

Use a separate electrical circuit for your power tools. This circuit must not be less than 14 gauge wire and should be protected with either a 15A time delay fuse or circuit breaker. Before connecting the power tool to the power source, make sure the switch is in the OFF position and the power source is the same as indicated on the nameplate. Running at lower voltage will damage the motor.












WARNING: Repair or replace damaged or worn extension cords immediately.

Select the appropriate extension cord gauge and length using the chart at right.

SYMBOLS

⚠ WARNING: Some of the following symbols may be used on your tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

V	volts
A	amperes
Hz	hertz
W	watt
kW	kilowatts
μF	microfarads
L	litres
kg	kilograms
H	hours
N/cm²	newtons per square centimetre
Pa	pascals
Min	minutes
S	seconds
	alternating current
	three-phase alternating current

	three-phase alternating current with neutral
	direct current
n_o	no load speed
	alternating or direct current
	class II construction
	splash proof construction
	watertight construction
	protective earthing at earthing terminal, Class I tools
.../min	revolutions or reciprocations per minute
Ø	diameter
0	off position
	arrow
	warning symbol

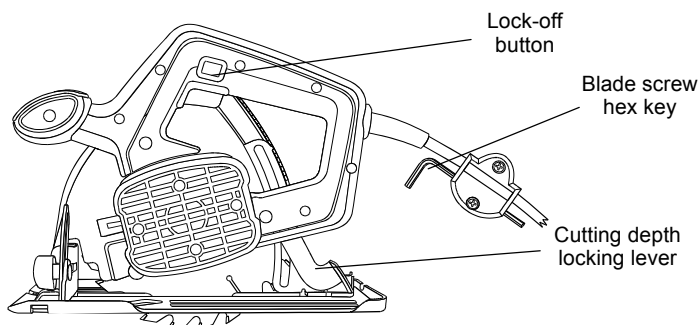
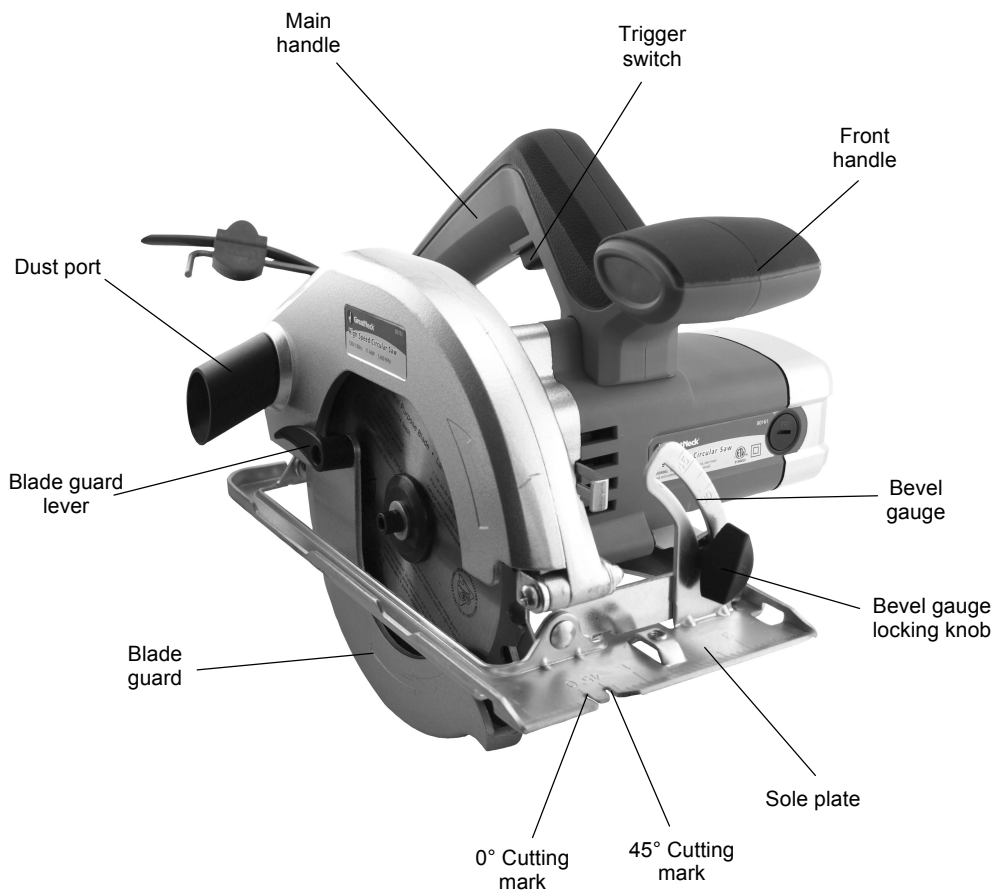


This symbol designates that this tool is listed with Canadian/USA requirements by ETL Testing Laboratories, Inc.

Conforms to UL STD. 60745-1, 60745-2-5

Certified to CAN/CSA STD. C22.2 No. 60745-1, 60745-2-5

KNOW YOUR CIRCULAR SAW



ACCESSORIES & CARTON CONTENTS

AVAILABLE ACCESSORIES

⚠ WARNING: Use only saw blades recommended for this circular saw. Follow instructions that accompany the saw blade. Improper use of saw blades may cause injury to the operator or damage to the circular saw.

Do not use any accessory unless you have completely read the instructions or Owner's Manual for that accessory.

- Circular saw blades

⚠ WARNING: If any part is missing or damaged, do not plug the tool into the power source until the missing or damaged part is replaced.

CARTON CONTENTS

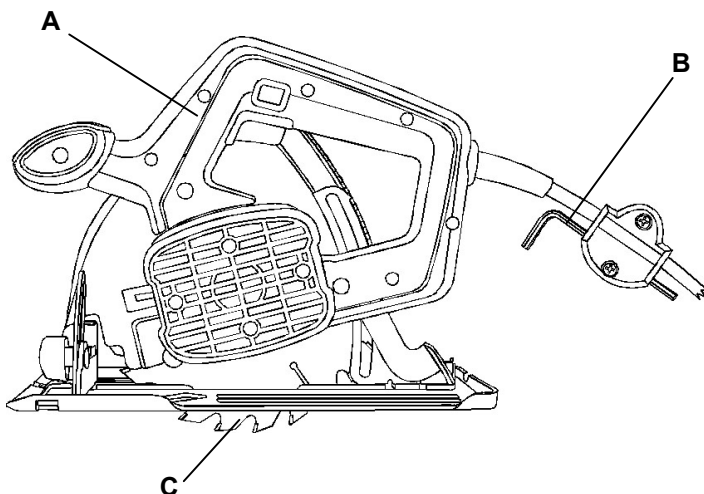
Carefully unpack the circular saw. Compare against the "Circular Saw Components" chart below.

NOTE: See illustration of components below.

⚠ WARNING: To avoid fire or toxic reaction, never use gasoline, naphtha, acetone, lacquer thinner or similar highly volatile solvents to clean the tool.

CIRCULAR SAW COMPONENTS		
KEY	DESCRIPTION	QTY
A	Saw assembly	1
B	5 mm Hex key	1
C	Blade 7-1/4" 24-tooth 5/8" arbor	1
	Owner's manual	1

CARTON CONTENTS



ASSEMBLY AND OPERATION

CHANGING THE BLADE

⚠ WARNING: Always remove the plug from the power source before removing the blade or adjusting the saw in any way.

1. Press inward on the shaft locking button (1) (Fig. 1).

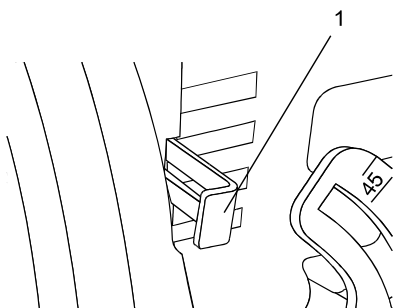


Fig. 1

2. Insert 5 mm hex key into the blade screw (2) (Fig. 2). While pressing in the shaft locking button (Fig. 1), rotate the hex key counter clockwise until the shaft locking button engages the blade shaft. Continue turning the hex key counter clockwise to remove the blade screw, lock washer (3), flat washer (4) and large outer flange washer (5).

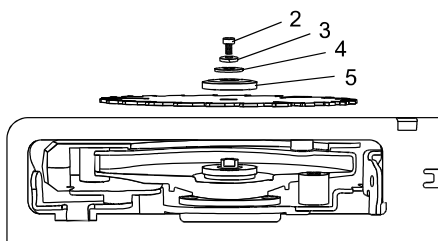


Fig. 2

3. Open the blade guard by lifting upward on the blade guard lever (6) (Fig. 3). Rotate the blade guard in a clockwise direction to expose the blade (7).

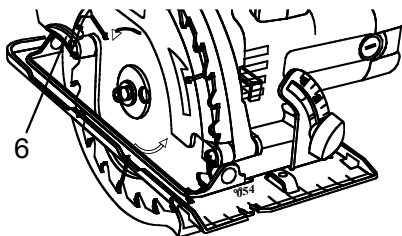


Fig. 3

4. While holding the blade guard lever in the open position, lift the blade (7) off the shaft (8) and slide it out through the slot in the sole plate (9) (Fig. 4).

NOTE: Do NOT remove the inner large flange washer.

⚠ WARNING: Use caution when handling the blade. It is sharp and can easily cut your hand.

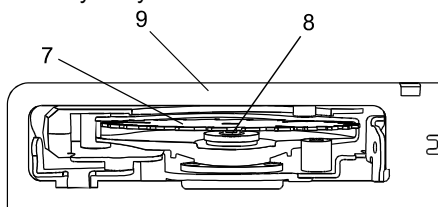


Fig. 4

5. To place a new blade onto the motor shaft, rotate the blade guard forward (Fig.3) and slide the blade through the slot in the sole plate until it fits over the motor shaft (Fig. 4).

NOTES:

- a) Make sure the blade teeth are pointing forward at the bottom of the blade.
- b) Make sure the hole in the blade is placed over the matching boss on the inner large flange washer.

ASSEMBLY AND OPERATION

CHANGING THE BLADE – cont'd

6. Place the large outer flat washer onto the motor shaft.
NOTE: Make sure the flat sections of the large outer flange washer fit over the matching flat sections on the motor shaft.
7. Insert the blade screw through the lock washer, flat washer and the large outer flange washer and thread it clockwise into the end of the motor shaft.
8. Lock the motor shaft using the shaft locking button and firmly tighten the blade screw using the hex key.
NOTE: Make sure the screw is NOT cross-threaded and that the blade does not wobble when turned by hand.

SETTING THE CUTTING DEPTH

The cutting depth of the blade should be set to suit the thickness of the material being cut. The cutting depth should be approximately $\frac{1}{8}$ " (3 mm) greater than the thickness of the material being cut.

1. Loosen the depth adjustment lever (1) by pulling it outward (Fig. 5).
2. Pull the sole plate (2) downward until the correct amount of the blade is protruding below the sole plate.
3. Push down firmly on the depth adjustment lever to lock the sole plate in position.

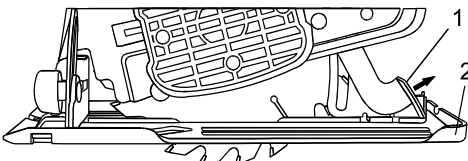


Fig. 5

BEVEL CUTTING

The sole plate can be tilted to provide bevel cuts from 0–45°.

1. Loosen the bevel gauge adjustment knob (1) by turning it counter-clockwise (Fig. 6).
2. Rotate the sole plate (2) to the desired angle as shown on the gauge (3), and the alignment mark.
3. Tighten the bevel gauge adjustment knob to lock the sole plate in position.
4. Make a test cut on a scrap piece of the workpiece to verify that the cutting angle is set properly.
5. Adjust cutting angle as necessary.

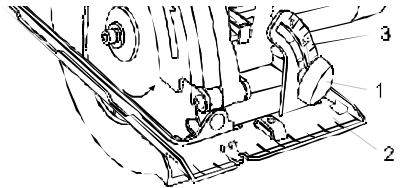


Fig. 6

ASSEMBLY AND OPERATION

⚠ WARNING: Have you read “**POWER TOOL SAFETY**”, “**SPECIFIC SAFETY RULES**”, “**EXTENSION CORD GUIDELINES**” and “**SYMBOLS**” on pages 3, 4, 5, 6, 7, & 8 of this Manual? If not, please do it now before you operate this circular saw. Your safety depends on it!

Every time you use the circular saw you should verify the following:
Blade is tight and sharp.
All adjustments are tight.
Workpiece is properly secured.
Safety glasses are being worn.

Failure to adhere to these safety rules can greatly increase the chances of injury.

LOCK-OFF BUTTON

The lock-off button (1) is a safety device designed to reduce the possibility of accidentally starting the saw (Fig. 7). This button must be depressed before the trigger switch (2) can be depressed.

TRIGGER SWITCH

1. To turn the saw ON, depress the lock-off button with your right thumb.
2. While holding the lock-off button in the depressed position, squeeze the trigger switch to start the saw.
3. Once the saw starts, release the lock-off button. The saw will remain running until the trigger switch is released.

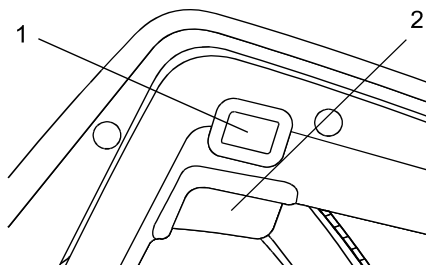


Fig. 7

4. To turn the saw OFF, release the trigger switch.
NOTE: To re-start the saw, the lock-off button must be depressed again before the trigger switch is squeezed.

ASSEMBLY AND OPERATION

MATERIALS YOU CAN CUT

The circular saw is a versatile saw that allows you to cut many different types of materials. Some of the materials include:

- Wood products such as lumber, hardwood, plywood, composition board and panelling
- Drywall
- Masonite and plastic

NOTE: There are several different types of blades available. Generally, blades with carbide-tipped teeth cut better and stay sharp longer. Tooth count and configuration are also important. High tooth counts cut slower and are best suited for making smooth cuts on thinner materials such as panelling. Use the correct blade for your application.

GENERAL CUTTING

1. Make any adjustments to the saw before plugging it into the power source. Adjustments include cutting depth, bevel cutting angle and rip guide (if installed).
2. Clearly mark the workpiece to locate the position of the cut.
3. Hold smaller workpiece with a vise. Clamp larger workpiece to a work bench or table.

⚠ DANGER: Any workpiece that is not adequately clamped in place may come loose and cause serious injury. Never hold the workpiece in your hand.

4. Make sure there are no nails, screws, clamps or foreign materials in the path of the saw blade.

5. With both hands firmly gripping the saw, and the blade NOT in contact with the surface to be cut, start the saw by depressing the lock-off button and then the trigger switch.
6. Once the saw has reached full speed, place the front edge of the sole plate on the workpiece and gradually bring the moving blade into contact with the workpiece at the appropriate location.

NOTE: To align the saw blade with the cutting mark, use the guide marks on the front of the sole plate (Fig. 8). Use the 0° line (1) for right angle cuts. Use the 45° mark (2) for 45° bevel cuts. This will allow for the extra material needed for the angle cut. Always make a test cut on a scrap workpiece before cutting the new material.

⚠ WARNING: Do not force the circular saw. Use only enough force to keep the blade cutting at full speed. Excessive pressure on the blade will cause it to slow down and overheat, resulting in poor cut quality and damage to the motor.

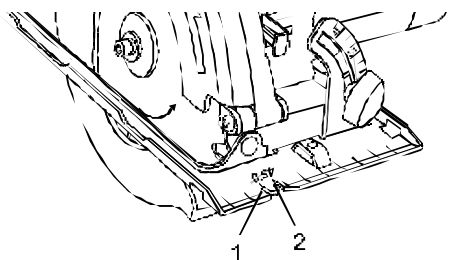


Fig. 8

MAINTENANCE

⚠ WARNING: When servicing, use only Great Neck replacement parts. Use of any other part may create a hazard or cause product damage.

DO NOT abuse power tools. Abusive practices can damage the tool as well as the workpiece.

⚠ WARNING: DO NOT attempt to modify tools or create accessories. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury. It will also void the warranty.

CLEANING

DO NOT use solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use a clean cloth to remove dirt, dust, oil, grease, etc.

⚠ WARNING: Do not at any time allow brake fluids, gasoline, petroleum-based products, penetrating oils, etc. to come in contact with plastic parts. They contain chemicals that can damage, weaken or destroy plastic.

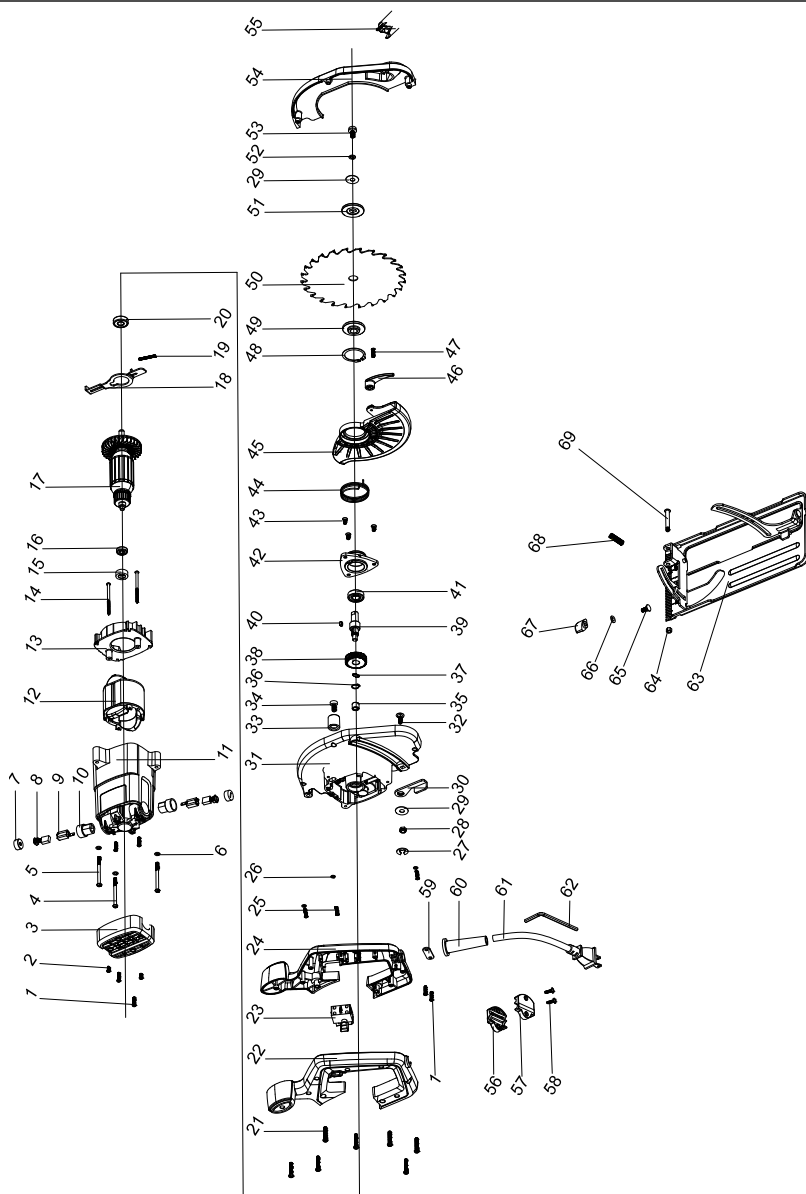
It has been found that electric tools are subjected to accelerated wear and possible premature failure when they are used on fiberglass boats and sports cars, wallboard, spackling compounds or plaster. The chips and grindings from these materials are highly abrasive to electric tool parts such as bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiberglass material, wallboard, spackling compounds or plaster. During any use on these materials it is extremely important that the tool is cleaned frequently by blowing out with an air jet.

⚠ WARNING: Always wear safety goggles or safety glasses with side shields during all sawing operations. It is critical that you also wear safety goggles or safety glasses with side shields and a dust mask while blowing dust out of the circular saw with an air jet. Failure to take these safety precautions could result in permanent eye or lung damage.

LUBRICATION

All of the bearings in this circular saw are lubricated with a sufficient amount of high-grade lubricant for the life of the unit under normal conditions. Therefore, no further lubrication is required.

PARTS DIAGRAM – MODEL 80161



PARTS LIST – MODEL 80161

⚠ WARNING: When servicing, use only GreatNeck replacement parts. Use of any other parts may create a HAZARD or cause damage to your power tool.

Any attempt to repair or replace electrical parts on this power tool may create a hazard unless repair is performed by a qualified technician.

Always order by PART NUMBER, not by key number.

Key #	Part #	Part Name	Quantity
1	80161-1	Tapping screw ST3.9x14	4
2	80161-2	Tapping screw ST3.9x9	2
3	80161-3	Motor cover	1
4	80161-4	Screw M5x60	2
5	80161-5	Screw M5x52	1
6	80161-6	Spring washer 5	3
7	80161-7	Brush cover	2
8	80161-8	Carbon brush	2
9	80161-9	Brush holder	2
10	80161-10	Brush holder support	2
11	80161-11	Housing	1
12	80161-12	Stator	1
13	80161-13	Air baffle ring	1
14	80161-14	Tapping screw ST3.9x70	2
15	80161-15	Bearing sleeve	1
16	80161-16	Bearing 607-2RS	1
17	80161-17	Rotor	1
18	80161-18	Blocking plate	1
19	80161-19	Spring	1
20	80161-20	Bearing 6000-2z	1
21	80161-21	Tapping screw ST3.9x19	7
22	80161-22	Left handle	1
23	80161-23	Switch	1
24	80161-24	Right handle	1
25	80161-25	Screw M4x12	3
26	80161-26	Spring washer	3
27	80161-27	Retaining ring	1
28	80161-28	Depth lock knob	1
29	80161-29	Thickened washer 6	2
30	80161-30	Depth lock lever	1

(Continued on pg.18)

PARTS LIST – MODEL 80161 (Cont'd)

Key #	Part #	Part Name	Quantity
31	80161-31	Gear housing	1
32	80161-32	Square neck bolt M6x16	1
33	80161-33	Rubber buffer	1
34	80161-34	Hex screw M6x16	1
35	80161-35	Needle bearing HK0810	1
36	80161-36	Retaining ring	1
37	80161-37	Wave washer	1
38	80161-38	Big gear	1
39	80161-39	Output shaft	1
40	80161-40	Flat key	1
41	80161-41	Bearing 6001-2RS	1
42	80161-42	Gear housing cover	1
43	80161-43	Countersink screw M5x12	3
44	80161-44	Torsion spring	1
45	80161-45	Moveable guard	1
46	80161-46	Moveable guard lever	1
47	80161-47	Screw M5x14	1
48	80161-48	Retaining ring	1
49	80161-49	Inner flange	1
50	80161-50	Blade	1
51	80161-51	Outer flange	1
52	80161-52	Wave washer	1
53	80161-53	Hex screw M6x20	1
54	80161-54	Fixed guard	1
55	80161-55	Dust exit	1
56	80161-56	Part A of hex key holder	1
57	80161-57	Part B of hex key holder	1
58	80161-58	Tapping screw ST2.9x6	2
59	80161-59	Cord clamp	1
60	80161-60	Cord guard	1
61	80161-61	Cord set	1
62	80161-62	Hex key	1
63	80161-63	Base plate	1
64	80161-64	Hex lock nut	1
65	80161-65	Square neck bolt	1
66	80161-66	Flat washer	1
67	80161-67	Bevel adjustment & lock knob	1
68	80161-68	Spring	1
69	80161-69	M5x41 special screw	1

Customer Service: 1-866-458-2472

www.greatnecktools.com

ALWAYS WEAR SAFETY GOGGLES

GREATNECK TOOLS, LLC

MINEOLA, NY 11501

MADE IN CHINA