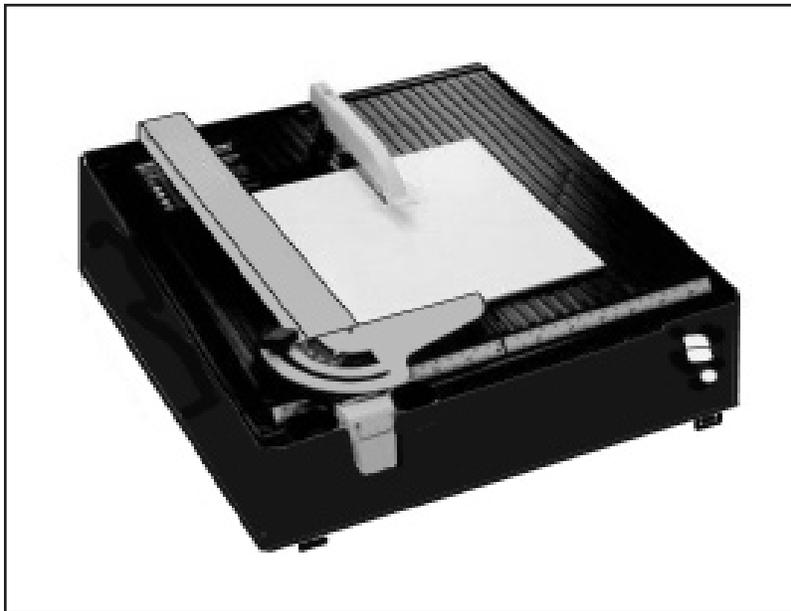


CHICAGO
Electric[®]Power Tools

7" PORTABLE WET TILE SAW

Model 91511

ASSEMBLY AND OPERATING INSTRUCTIONS



Distributed Exclusively by Harbor Freight Tools
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 and replacement parts, please call 1-800-444-3353

REV 08a

PRODUCT SPECIFICATIONS

Item	Description
Electrical Requirements	120 V / 60 Hz / 3400 RPM 1/2 HP / Single Phase Motor Start Up AMPs: 10.2 Circuit Breaker: 120V 3 Prong, Grounded, Power Cord Plug
Cutting Capacity	Up to 1-1/4" Thick
Blade Size/Type	7" Diamond With 5/8" Round Arbor Hole *Must Be Rated At 3600 RPM Or Greater
Arbor Size	5/8" Diameter
Angle Cutting Capacity	Right Side of Table Tilts At: 15°, 30°, 45°, 60°
Water Compartment	13" L x 6-1/4" W x 5-13/16" Deep Maximum Water Depth: 1-1/2"
Overall Dimensions	15-5/8" L x 15-3/4" W x 6-1/2" H
Weight	16.3 Pounds

UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts List on page 17** 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.

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 in the following pages 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 flammables.
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.

PERSONAL SAFETY

1. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
2. **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.
3. **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.
4. **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.
5. **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.
6. **Use safety equipment. Always wear ANSI-approved safety goggles, a dust mask or respirator, and hearing protection.**

TOOL USE AND CARE

1. **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.

2. **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.
3. **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.
4. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
5. **Maintain tools with care.** Do not use a damaged tool. Tag damaged tools “Do not use” until repaired.
6. **Check for misalignment or binding of moving parts, breakage of parts, cracking or breakage of the Blade, 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.
7. **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

1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
2. **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.

ELECTRICAL SAFETY

1. **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.

2. **Double insulated tools are equipped with a polarized plug (one prong 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.
3. **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.
4.  **Do not expose power tools to external rain or wet conditions.** Water entering unprotected parts of this power tool will increase the risk of electric shock.
5. **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.
6. **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.

GROUNDING

WARNING!

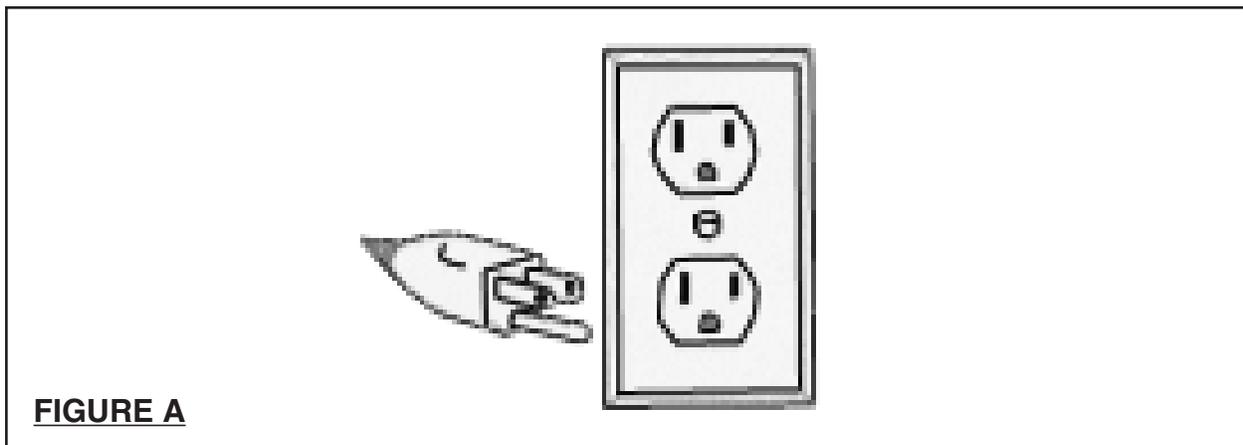
Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use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

GROUNDED 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.)**



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 B, 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 B.)**
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 B.)**

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 B.)**
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	-	-	-

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

FIGURE B

SYMBOLOLOGY

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

FIGURE C

SPECIFIC SAFETY RULES

1. **Maintain labels and nameplates on the Wet Tile Saw.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
2.  **Keep hands and fingers away from cutting area and Saw Blade.** Use a appropriate push stick (not included) whenever possible.
3. **Check Blade Guard for proper upward/downward movement before each use. Do not operate the Wet Tile Saw if the Blade Guard does not move freely. Never clamp or tie the Blade Guard into the upward position.** If the Wet Tile Saw is accidentally dropped, the Blade Guard may be bent. Raise the Blade Guard and make sure it moves freely and does not touch the Saw Blade or any other part of the Saw, in all angles and depths of cut.
4. **Always use Diamond Blades with a 7" diameter, 5/8" round arbor hole, and rated at a minimum 3,600 RPM.** Blades that do not match the mounting hardware of the Wet Tile Saw or that are rated at less than the required minimum RPM will run eccentrically causing loss of control or may fly off the Saw.
5. **Use the Wet Tile Saw only for cutting ceramic tile, quarry tile, marble, terra cotta, and slate with a maximum thickness of 1-1/4".**
6. **Do not use the Wet Tile Saw for cutting metals, or for cutting curves.** This may cause the Saw Blade to break, and reduce its service life.
7. **Make sure the Saw Blade remains wet at all times while cutting.**
8. **Always keep the water level at the recommended level (1-1/2" deep).** Do not overfill or allow the Wet Tile Saw to run dry.
9. **Avoid splashing water on the Motor, Power Switch, or any electrical component.** Make sure to stand on a dry, insulated surface, such as a rubber mat, while using this Wet Tile Saw.
10. **Make sure to clean the water reservoir thoroughly after each use.**
11. **Never use damaged or incorrect Saw Blade washers or nuts.** The Saw Blade's washers and nut were specially designed for your Saw, for optimum performance and safety of operation.
12. **To avoid accidental injury, always wear heavy duty work gloves and long sleeved work shirt when changing a Saw Blade.**

13. **Before using the Wet Tile Saw, make sure the Saw Blade is properly mounted on the Saw Spindle.** Make sure the Saw Blade is balanced, and is not cracked or bent.
14. **The Saw Blade will become hot while cutting.** Allow the Saw Blade to completely cool before touching.
15. **Allow the Saw Blade to spin up to full speed before feeding a workpiece into it.** When turning off the Saw, allow the Saw Blade to spin down and stop on its own. Do not press against the Saw Blade to stop it.
16. **Do not force the workpiece into the Saw Blade when cutting.** Apply moderate pressure, allowing the Saw Blade to cut without being forced.
17. **Turn off the Wet Tile Saw and allow the Saw Blade to stop on its own if the Saw Blade is to be backed out of an uncompleted cut.**
18. **Never attempt to remove material stuck in the moving parts of the Wet Tile Saw while it is plugged in and running.**
19. **When cutting a large workpiece, make sure its entire length is properly supported.** If necessary, use a roller stand (not included) with larger workpieces.
20. **Never stand on the Wet Tile Saw.** Serious injury could result if the Wet Tile Saw is tipped or if the rotating Saw Blade is accidentally contacted.
21. **Industrial applications must follow OSHA requirements.**
22. **For your safety:** In extreme working conditions, sensors in the Wet Tile Saw will automatically switch off the Motor to prevent overheating. In this event, turn the Power Switch to its "OFF" position. Wait five minutes or until the Motor has cooled. Depress the Circuit Breaker. Then, turn the Power Switch to its "ON" position to resume cutting.
23. **Always turn off the Wet Tile Saw and unplug the Power Cord from its electrical outlet before changing accessories or performing any inspection, maintenance, or cleaning procedures.**
24. **Use the right tool or attachment for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool or attachment. There are certain applications for which this product was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this product, and do not use this product for a purpose for which it was not intended.

25.  **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.
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. **The warnings, precautions, and instructions 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.

ASSEMBLY INSTRUCTIONS

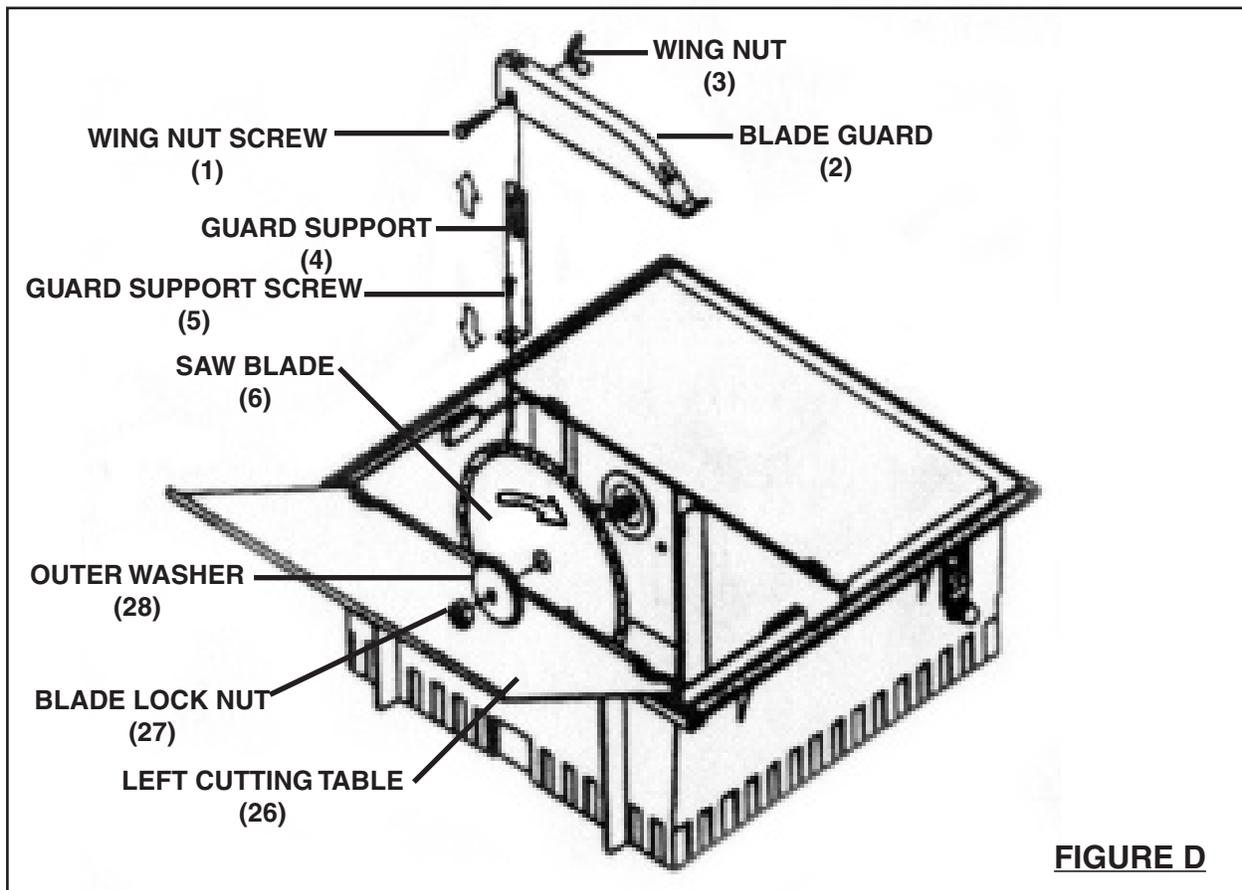
NOTE: For additional references to the parts listed in the following pages, refer to the **Assembly Diagram on page 17.**

To Remove And Install The Saw Blade:

1.  **WARNING!** Prior to performing any assembly procedures, make sure the **Power Cord (17)** of the Wet Tile Saw is unplugged from its electrical outlet. Also, make sure the unit has completely cooled and wear heavy duty work gloves.
2. Open the Left Side Cutting Table (26) to expose the old Saw Blade (6). **(See Figure D, next page.)**
3. Using the accessory Wrench (33), remove the Blade Lock Nut (27) by unscrewing it in a **clockwise** direction. **(See Figure D.)**
4. Once the Blade Lock Nut (27) is removed, remove the Outer Washer (28). **(See Figure D.)**
5. While wearing heavy duty work gloves to avoid accidental cuts, remove the old

Saw Blade (6) from the Spindle of the Wet Tile Saw. Then, install a new diamond Saw Blade with a 7" diameter, 5/8" round arbor hole, and rated at a minimum 3,600 RPM. (See Figure D.)

6. **NOTE:** When installing the new Saw Blade (6), make sure the *directional arrow* shown on the Saw Blade is pointing toward the *front* of the Wet Tile Saw. (See Figure D.)
- 7 Replace the Outer Washer (28). Then, firmly tighten the Blade Lock Nut (27) **counterclockwise** to secure the Saw Blade (6) in place. (See Figure D.)



To Attach The Saw Blade Guard:

1. Align the mounting hole in the Guard Support (4) with the mounting hole in the inner edge of the frame of the Wet Tile Saw. Then secure the Guard Support to the frame, using one Guard Support Screw (5). (See Figure D.)
2. Secure the Blade Guard (2) to the top portion of the Guard Support (4), using one Wing Nut Screw (1) and one Wing Nut (3). (See Figure D.)

3. Check to make sure the Blade Guard (2) moves freely upward and downward. **(See Figure D.)**
4. Close the Left Side Cutting Table (26). **(See Figure D.)**

To Attach The Fence And Miter Guide:

1. Place the Fence (11) on top of the Right Cutting Table (10) and clamp both ends of the Fence to secure it in place. The Fence is marked in both inches and centimeters to make cuts accurate. The Fence may be used on either side of the Saw Blade (6). **(See Figure E.)**
2. Slide the Miter Guide (24) into the Miter Guide Sliding Track (29). Check to make sure the Miter Guide slides freely to the front and rear of the Wet Tile Saw. **(See Figure E.)**

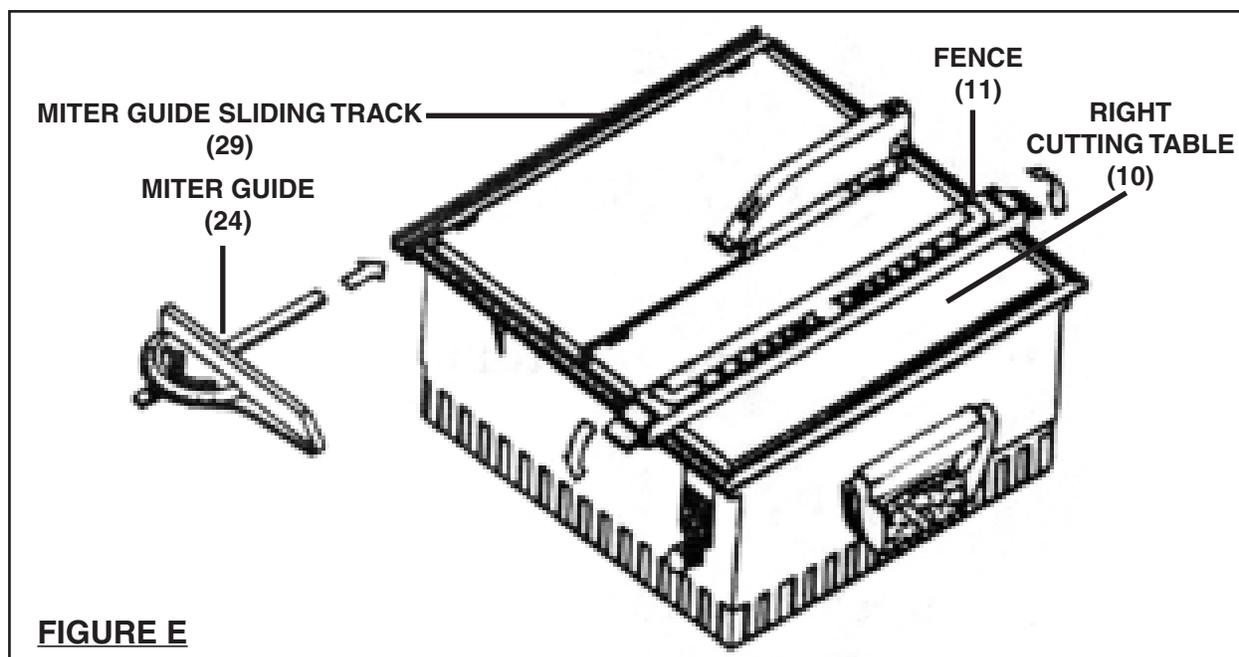
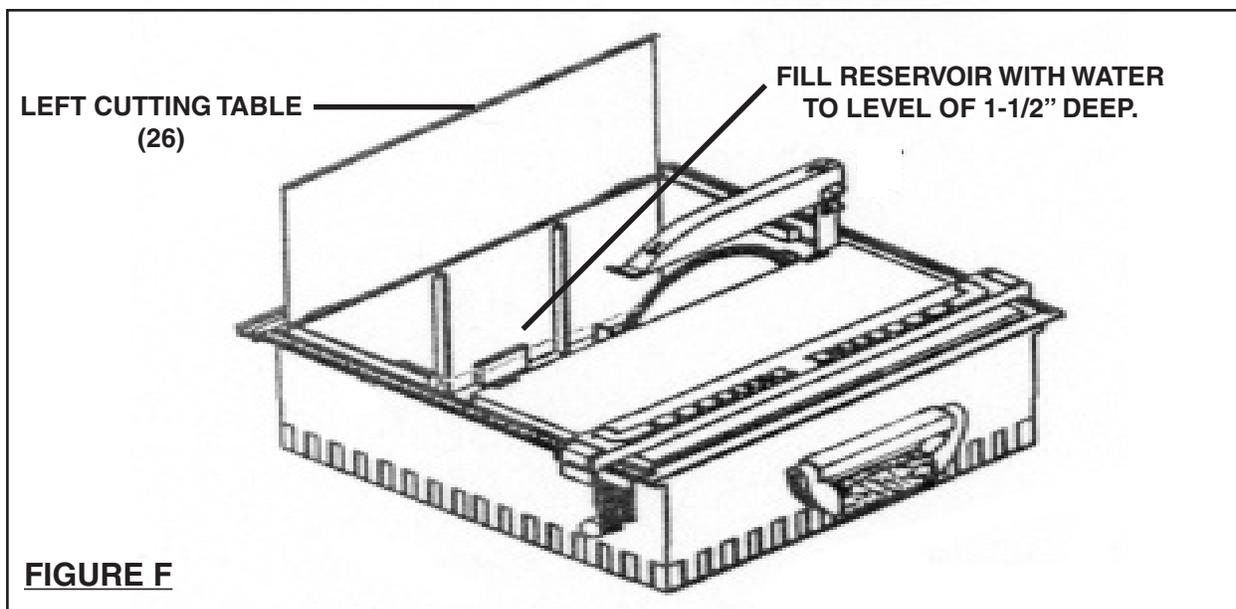


FIGURE E

OPERATING INSTRUCTIONS

1. The Power Cord (17) is stored underneath the Wet Tile Saw. Take out the Power Cord, but **DO NOT** plug it into an electrical outlet.
2. Raise the Left Cutting Table (26). Then fill the reservoir with water to a level of **1-1/2" deep**. Do not overfill or allow the Wet Tile Saw to run dry. Then, close the Left Cutting Table. **(See Figure F, next page.)**

Check Blade Guard for proper upward/downward movement before each use. Do not operate the Wet Tile Saw if the Blade Guard does not move freely. Never clamp or tie the Blade Guard into the upward position.



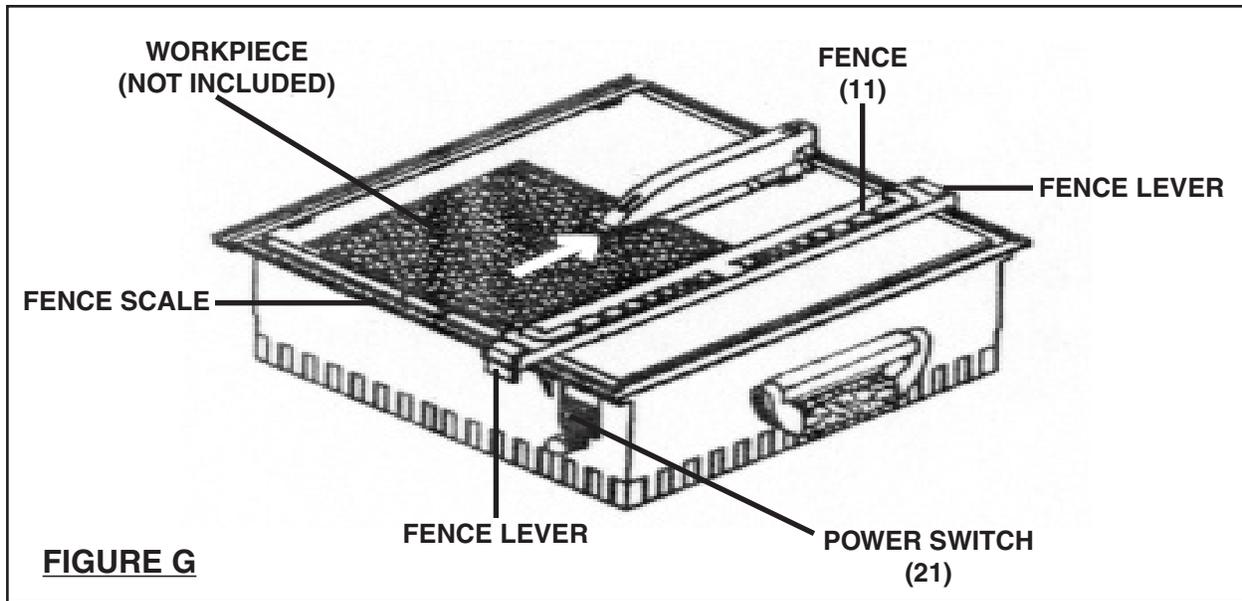
3. Make sure the Power Switch (21) is in its “**OFF**” position. Then, plug the Power Cord (17) into the nearest 120 volt, grounded, electrical outlet. **(See Figure G.)**

To Perform Straight Cutting:

1. Lift the front and rear Levers of the Fence (11). Slide the Fence along the Table to the left or right until the desired width of cut is acquired as indicated on the Fence Scale. Then, lower the front and rear Levers of the Fence to lock the Fence in place. **(See Figure G, next page.)**
2. Place the workpiece flush against the Fence (11). Turn the Power Switch (21) to its “**ON**” position, and allow the Saw Blade (6) to spin up to full speed. Then, slowly and carefully push the workpiece into the Saw Blade until the cut is completed. **(See Figure G.)**
3. Once the cut is completed turn the Power Switch (21) to its “**OFF**” position, and allow the Saw Blade (6) to come to a complete stop on its own. Then remove the workpiece, and unplug the Power Cord (17) from its electrical outlet. **(See Figure G.)**

To Perform Angle Cutting:

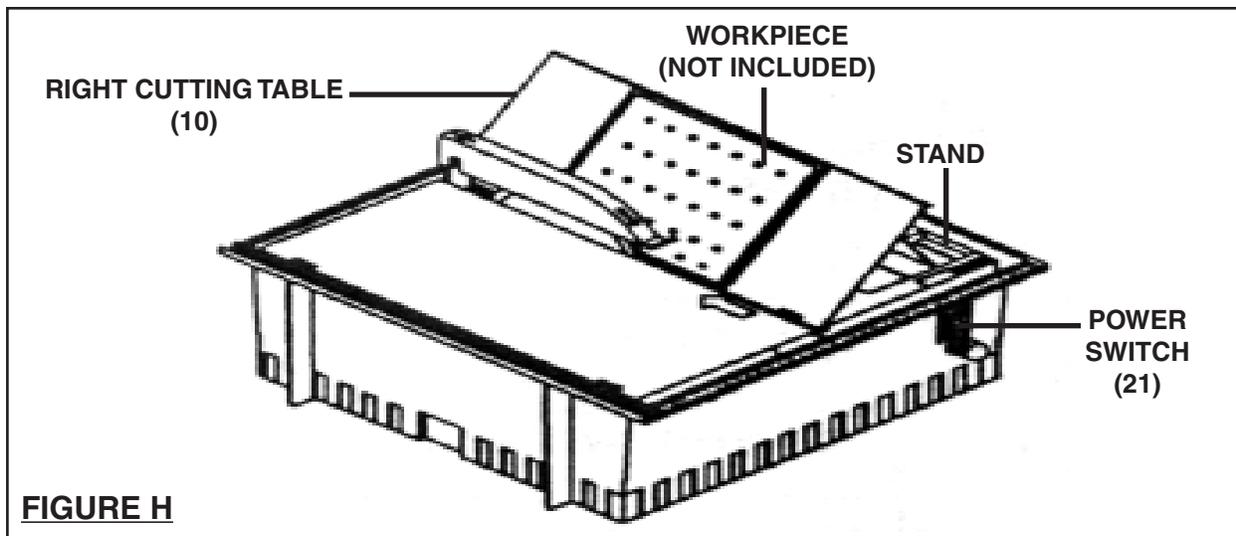
1. Make sure the Power Switch (21) is in its “**OFF**” position. Then, plug the Power Cord (17) into the nearest 120 volt, grounded, electrical outlet. **(See Figure H, page 15.)**



2. Raise the Right Cutting Table (10) to the desired angle of cut (i.e., 15°, 30°, 45°, or 60°). **(See Figure next page.)**
3. Place the two Stands underneath the Right Cutting Table (10) into the grooves to hold the Cutting Table in position. **(See Figure H.)**
4. Place the workpiece finished side down onto the Right Cutting Table (10). **(See Figure H.)**
5. Turn the Power Switch (21) to its “**ON**” position, and allow the Saw Blade (6) to spin up to full speed. Then, slowly and carefully push the workpiece into the Saw Blade until the cut is completed. **(See Figure H.)**
6. Once the cut is completed turn the Power Switch (21) to its “**OFF**” position, and allow the Saw Blade (6) to come to a complete stop on its own. Then remove the workpiece, and unplug the Power Cord (17) from its electrical outlet. **(See Figure H.)**

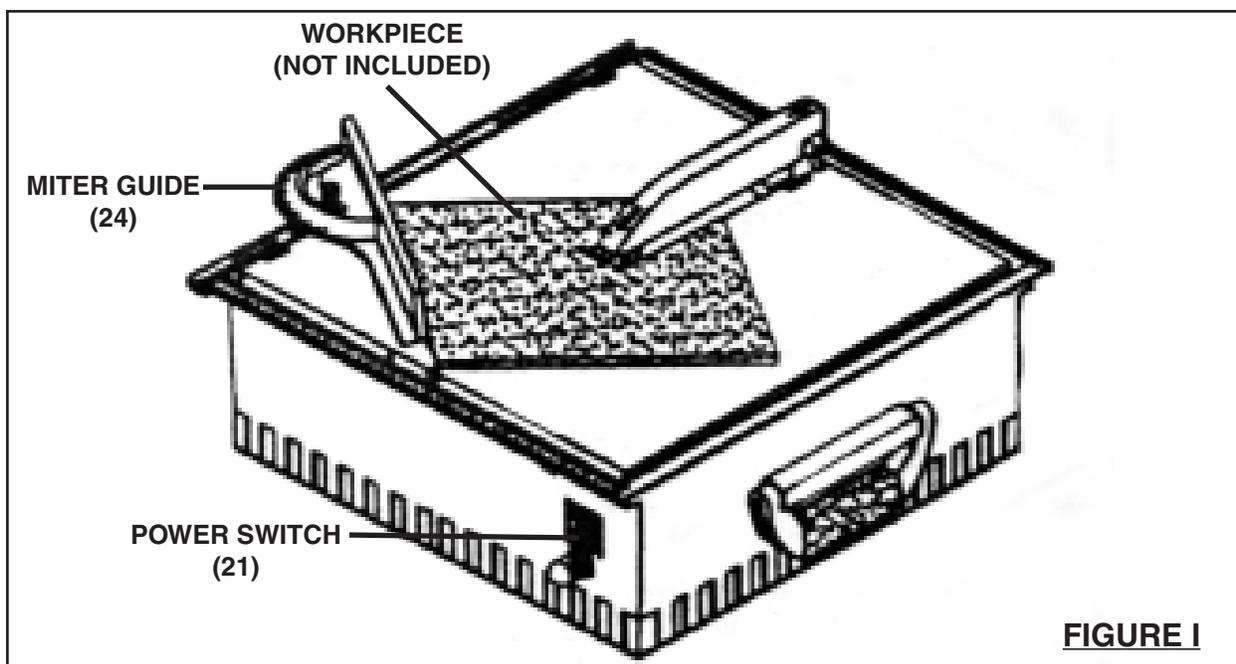
To Perform Miter Cutting:

1. Make sure the Power Switch (21) is in its “**OFF**” position. Then, plug the Power Cord (17) into the nearest 120 volt, grounded, electrical outlet. **(See Figure I, next page.)**
2. Loosen the Lock Knob on the Miter Guide (24). Then select the degree of cut



(0° to 60°) and tighten the Lock Knob to lock the Miter Guide in place.
(See Figure I.)

- Place the workpiece flush against the Miter Guide (24). Turn the Power Switch (21) to its “ON” position, and allow the Saw Blade (6) to spin up to full speed. Then, slowly and carefully push the workpiece into the Saw Blade until the cut is completed. **(See Figure I.)**
- Once the cut is completed turn the Power Switch (21) to its “OFF” position, and allow the Saw Blade (6) to come to a complete stop on its own. Then remove the workpiece, and unplug the Power Cord (17) from its electrical outlet. **(See Figure I.)**



INSPECTION, MAINTENANCE, AND CLEANING

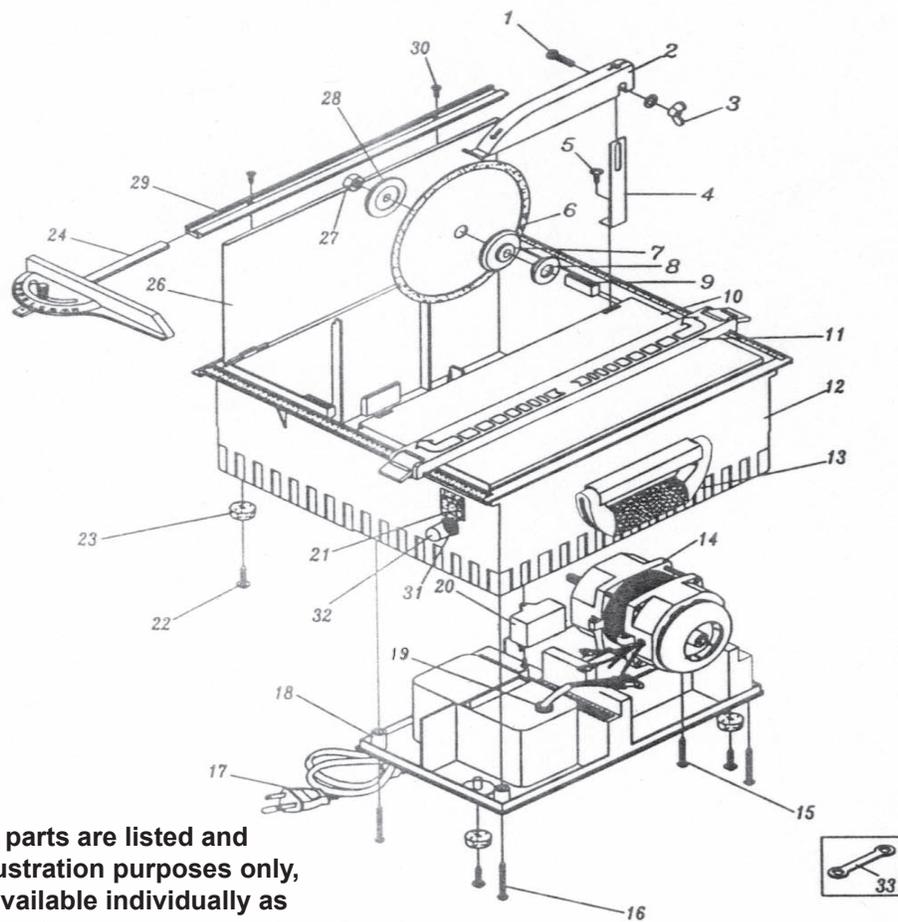
1.  **WARNING!** Always make sure the Power Switch (21) is in its “OFF” position, and unplug the Power Cord (17) from its 120 volt electrical outlet before performing any inspection, adjustments, maintenance, or cleaning.
2. **Before each use**, inspect the general condition of the Wet Tile Saw. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, loose, cracked, or bent Saw Blade (6), 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. **Daily:** With a soft brush, cloth, or vacuum, remove all dust and debris from the exterior surfaces of the Wet Tile Saw. Clean the water reservoir thoroughly after each use.
4. **When storing**, always store the Wet Tile Saw in a safe, clean, dry location.
5. Repairs should only be performed by a qualified service technician.

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	Qty.	Part #	Description	Qty.
1	Screw	1	18	Motor Bottom Base	1
2	Blade Guard	1	19	Electrical Cord Fixed Head	1
3	Wing Nut	1	20	Capacitor	1
4	Guard Support	1	21	Power Switch	1
5	Screw	1	22	Rubber Stand Screw	4
6	Continuous Rim Blade (7")	1	23	Rubber Stand	4
7	Inner Washer	1	24	Miter Guide	1
8	Rubber Ring	1	26	Left Cutting Table	1
9	Magnet	4	27	Blade Lock Nut	1
10	Right Cutting Table (Adjustable)	1	28	Outer Washer	1
11	Fence	1	29	Miter Guide Sliding Track	1
12	Frame	1	30	Sliding Track Screw	3
13	Carrying Handle	1	31	Circuit Breaker	1
14	Motor	1	32	Circuit Breaker Cover	1
15	Motor Screw	4	33	Wrench	1
16	Motor Bottom Base Screw	4			
17	Power Cord	1			



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