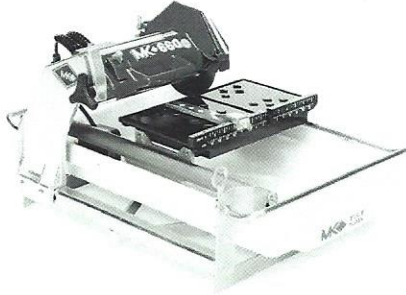




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MK-660 TILE SAW OWNER'S MANUAL PARTS LIST & OPERATING INSTRUCTIONS



Revision 102	12.2010
Manual Part# 153461	

Caution: Read all safety and operating instructions before using this equipment. This parts list **MUST** accompany the equipment at all times.



MK-660 TILE SAW

SAFETY

- MAKE THE WORKSHOP KID PROOF**
Make the workshop kid proof by using padlocks, master switches or by removing starter keys.
- DO NOT FORCE THE TOOL**
A power tool will do a job better and safer operating at the rate for which it was designed.
- USE THE RIGHT TOOL**
DO NOT force a tool or an attachment to do a job that it was not designed to do.
- USE THE PROPER EXTENSION CORD**
If using an extension cord make sure it is in good condition first. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage that will result in a loss of power and overheating. Page 10 shows the correct AWG size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.
- USE PROPER APPAREL**
DO NOT wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that may be caught in moving parts. Non-slip footwear is recommended. Wear protective hair covering to contain long hair.
- ALWAYS** wear approved eye protection.
- ALWAYS** wear approved respiratory protection.
- SECURE WORK**
Clamps or a vise should be used to hold work whenever practical. Keeping your hands free to operate a power tool is safer.
- DO NOT OVERREACH**
Keep proper footing and balance at all times by not overreaching.
- MAINTAIN TOOLS WITH CARE**
Keep tools clean for the best and safest performance. Always follow maintenance instructions for lubricating and when changing accessories.
- DISCONNECT TOOLS**
Power tools should always be disconnected before servicing or when changing accessories, such as blades, bits, cutters, and the like.
- ALWAYS** place the power ON/OFF switch in the **OFF** position when the saw is not in use.

MK-660 TILE SAW

SAFETY

Read and follow all safety, operating and maintenance instructions. Failure to read and follow these instructions could result in injury or death to you or others. Failure to read and follow these instructions could also result in damage and/or reduced equipment life.

SAFETY MESSAGES

A safety message alerts you to potential hazards that could hurt you or others. Each safety message is preceded by a safety alert symbol (▲) and one of three words: **DANGER**, **WARNING**, or **CAUTION**.

- DANGER** You **WILL** be **KILLED** or **SERIOUSLY INJURED** if you do not follow directions.
- WARNING** You **CAN** be **KILLED** or **SERIOUSLY INJURED** if you do not follow directions.
- CAUTION** You **CAN** be **INJURED** if you do not follow directions. It may also be used to alert against unsafe practices.

DAMAGE PREVENTION AND INFORMATION MESSAGES:

A Damage Prevention Message is to inform the user of important information and/or instructions that could lead to equipment or other property damage if not followed. Information Messages convey information that pertains to the equipment being used. Each message will be preceded by the word **NOTE**, as in the example below.

NOTE: Equipment and/or property damage may result if these instructions are not followed.

GENERAL SAFETY PRECAUTIONS AND HAZARD SYMBOLS

In order to prevent injury, the following safety precautions and symbols should be followed at all times!

SAFETY PRECAUTIONS

- ALWAYS** read this Owner's Manual before operating the machine.
- ALWAYS** keep the Blade Guards in place.
- REMOVE ADJUSTING KEYS AND WRENCHES**
Form a habit of checking to see that keys and adjusting wrenches are removed from the power tool before it is turned on.
- KEEP WORK AREA CLEAN**
Cluttered work areas and benches invite accidents.
- DO NOT USE IN DANGEROUS PLACES**
DO NOT use power tools in damp or wet locations nor expose them to rain. Always keep the work area well lit.
- KEEP CHILDREN AWAY**
All visitors and children should be kept a safe distance from work area.

MK-660 TILE SAW

SAFETY

- USE RECOMMENDED ACCESSORIES**
Consult the Owner's Manual for recommended accessories. Using improper accessories may increase the risk of personal or by-stander injury.
- NEVER STAND ON THE TOOL**
Serious injury could occur if a power tool is tipped, or if a cutting tool is unintentionally contacted.
- CHECK FOR DAMAGED PARTS**
Before using a power tool, check for damaged part. A guard or any other part that is damaged should be carefully checked to determine if would operate properly and perform its intended function. Always check moving parts for proper alignment or binding. Check for broken parts and mountings and all other conditions that may affect the operation of the power tool. A guard, or any damaged part, should be properly repaired or replaced.
- DIRECTION OF FEED**
ALWAYS feed work into a blade or cutter against the direction of rotation. A blade or cutter should always be installed such that rotation is in the direction of the arrow imprinted on the side of the blade or cutter.
- NEVER LEAVE A TOOL UNATTENDED**
TURN POWER OFF - Do not leave a tool until it comes to a complete stop. Always turn a power tool **OFF** when leaving the work area, or, when a cut is finished.

CALIFORNIA PROPOSITION 65 MESSAGE

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 and other masonry products
- Arsenic and chromium, from chemically treated lumber

For further information, consult the following sources:
<http://www.osha.gov/SLTC/silicacrystalline/index.html>
<http://www.cdc.gov/niosh/consilic.html>
<http://oehha.ca.gov/prop65/law/P65law72003.html>
<http://www.dir.ca.gov/Tile8/sub4.html>

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.

HAZARD SYMBOLS

**ELECTRICAL SHOCK**

NEVER touch electrical wires or components while the engine is running. They can be sources of electrical shock which could cause severe injury or burns.

**ROTATING PARTS**

Keep hands, feet, hair, and clothing away from all moving parts to prevent injury. Never operate the motor with covers, shrouds, or guards removed.

**OVER SPEED**

NEVER tamper with the governor components or settings to increase the maximum speed. Severe personal injury and damage to the motor or equipment can result if operated at speeds above maximum.

**DO NOT EXPOSE TO RAIN**

DO NOT expose to rain or use in damp locations.

**WARNING**

Sawing and drilling generates dust. Excessive airborne particles may cause irritation to eyes, skin and respiratory tract. To avoid breathing impairment, always employ dust controls and protection suitable to the material being sawed or drilled; See OSHA (29 CFR Part 1910.1200).

**WARNING**

Diamond Blades improperly used are dangerous. Comply with American National Standards Institute Safety Code, B7.1 and, Occupational Safety and Health Act covering Speed, Safety Guards, Flanges, Mounting Procedures, General Operating Rules, Handling, Storage and General Machine Conditions.

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ELECTRICAL REQUIREMENTS AND GROUNDING INSTRUCTIONS

In order to prevent potential electrical shock and injury, the following electrical safety precautions and symbols should be followed at all times!

**WARNING**

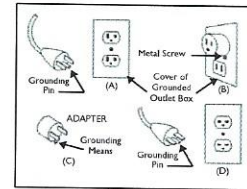
In case of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

- Do not modify the plug provided – if it will not fit the outlet; have the proper outlet installed by a qualified electrician
- Improper connections of the equipment-grounding conductor can result in a risk of electric shock. The equipment-grounding conductor is the insulated conductor that has an outer surface that is green, with or without yellow stripes. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal
- Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded
- Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug
- Repair or replace a damaged or worn cord immediately

**WARNING**

This tool is intended for use on a circuit that has an outlet that looks like the one shown in Sketch A. The tool has a grounding plug that looks like the plug illustrated in Sketch A. A temporary adapter, which looks like the adapter illustrated in sketches B and C, may be used to connect this plug to a 2-pole receptacle as shown in Sketch B, if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter, must be connected to a permanent ground such as a properly grounded outlet box.

NOTE: Use of a temporary adapter is not permitted in Canada.



Circuit and Adapter Information

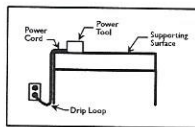
8

**WARNING**

To avoid the possibility of the appliance plug or receptacle getting wet, position the machine to one side of a wall mounted receptacle. This will prevent water from dripping onto the receptacle or plug. A "drip loop," shown in the picture below, should be arranged by the user to properly position the power cord relative to the power source.

The "drip loop" is that part of the cord below the level of the receptacle, or the connector, if an extension cord is used. This method of positioning the cord prevents the travel of water along the power cord and coming in contact with the receptacle.

If the plug or receptacle gets wet, **DO NOT** unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the tool. Then unplug and examine for presence of water in the receptacle.



Drip Loop Information

**WARNING**

Use only extension cords that are intended for outdoor use. These extension cords are identified by a marking "Acceptable for use with outdoor appliances; store indoors while not in use." Use only extension cords having an electrical rating not less than the rating of the product. Do not use damaged extension cords. Examine extension cords before using and replace if damaged. Do not abuse extension cords and do not yank on any cord to disconnect. Keep cords away from heat and sharp edges. Always disconnect the extension cord from the receptacle before disconnecting the product from the extension cord.

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**WARNING**

To reduce the risk of electrocution, keep all connections dry and off the ground. Do not touch the plug with wet hands.

**WARNING**

Use of under sized extension cords result in low voltage to the motor that can result in motor burnout and premature failure. MK Diamond warns that equipment returned to us showing signs of being run in a low voltage condition, through the use of undersized extension cords will be repaired or replaced totally at the customer's expense. There will be no warranty claim.

To choose the proper extension cord:

- Locate the length of extension cord needed in the table below.
- Once the proper length is found, move down the column to obtain the correct AWG size required for that length of extension cord.

VOLTS	EXTENSION CORD MINIMUM GAGE FOR LENGTH			
	TOTAL LENGTH OF CORD IN FEET			
	25 ft. AWG	50 ft. AWG	100 ft. AWG	150 ft. AWG
120v	18	16	14	12

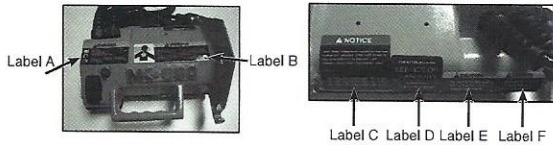
TILE SAW SPECIFIC WARNINGS**WARNING**

Wear eye protection.
Use splash guard for every operation for which it can be used.
Disconnect saw before servicing, when changing cutting blades, and cleaning.
Replace damaged cutting blade before operating.

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SAFETY LABEL LOCATIONS

The warning labels contain important safety information. Please read the information contained on each safety label. These labels are considered a permanent part of your saw. If a label comes off or becomes hard to read, contact MK Diamond or your dealer for a replacement.



Decal/Label	Location	Description
A	Cutting Head Front	Warning - Read Owner's Manual
B	Cutting Head Front	Warning - Silica Warning
C	Cutting Head Back	Notice - Voltage / extension cords
D	Cutting Head Back	Service / Warranty
E	Cutting Head Back	Caution - Use with GFCI only
F	Cutting Head Back	Caution - Receptacle for water pump

UNPACKING

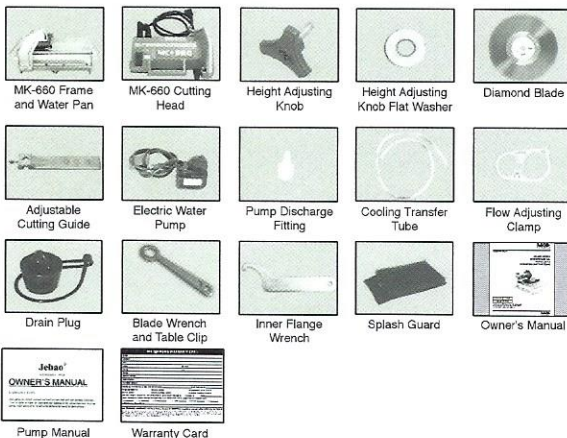
Your MK-660 Saw has been shipped from the factory thoroughly inspected. Only minimal assembly is required.

CAUTION Use proper lifting techniques when lifting the MK-660 Saw.

If not done, remove the MK-660 Saw, Cutting Head and accessory box from the carton.

CONTENTS

In your container, you will find one (1) MK-660 Frame and Water Pan, one (1) MK-660 Cutting Head, (1) Cutting Head Height Adjusting Knob, (1) Height Adjusting Knob Flat Washer, one (1) 7-inch Wet Cutting Continuous Rim Diamond Blade, one (1) Adjustable Cutting Guide, one (1) Electric Water Pump, one (1) Pump Discharge Fitting, one (1) Cooling Transfer Tube, one (1) Flow Adjusting Clamp, one (1) Drain Plug, one (1) Blade Wrench, one (1) Table Clip, one (1) Inner Flange Wrench, (1) Splash Guard, one (1) Owner's Manual, one (1) Pump Manual and one (1) Warranty Card.



PRODUCT SPECIFICATIONS

The MK-660 Saw is a versatile Tile Saw. Operated and used according to this manual, the MK-660 will provide years of dependable service.

GENERAL DESCRIPTION

The MK-660 Saw is engineered as a tabletop or stand mounted wet tile saw. The saw includes a powerful 120v electric motor. The saw is capable of cutting tile up to fourteen (14) inches in length. The saw can cut an object two (2) inches thick in one pass.

MOTOR SPECIFICATIONS

Motor specifications for the MK-660 Saw are listed in the table below:

Voltage	120v
Motor Only Amperage	8.8 a
Frequency	60Hz
RPM	3500 rpm
Horse Power	3/4 hp
Weight	53 lbs.

BLADE CAPACITY

The MK-660 Saw uses a seven (7) inch (178mm) diameter, wet cutting continuous rim, MK Diamond blade with a five-eighths (5/8) inch (15.875 mm) arbor.

TILE TYPES

The MK-660 Saw can cut a variety of tile types including stone, masonry, and lapidary products.

NOTE: The MK-660 Saw is not designed to cut plastic or metals.

TRANSPORT

CAUTION

1. The MK-660 Saw weighs approximately fifty-three (53) pounds; use care when transporting.
2. Never transport the MK-660 Saw with water in the Water Pan.

The MK-660 Saw is designed with a rigid frame and removable Cutting Head. Always use proper lifting techniques when lifting the MK-660 Saw.

To lift the saw, grasp the front and back of the frame at the lift points shown below.



STAND (Optional)

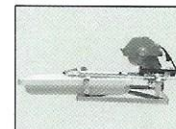
CAUTION

The MK-660 Saw weighs fifty-three (53) pounds; follow the guidelines in the TRANSPORT section when placing it on the stand (MK Diamond Part# 151889).

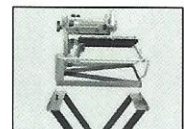
NOTE: If using the Optional MK Diamond Stand, follow these steps:



(A) Open the stand and place on flat surface



(B) Remove Water Basin, place saw on stand



(C) Ensure saw frame is positioned properly

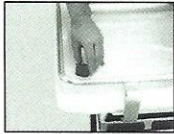


(D) Reinstall the Water Basin

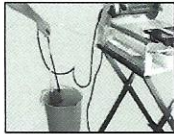
WATER PUMP SETUP FOR OPERATION

The Water Pump can be setup for operation in two ways, External Water Source or Re-circulation.

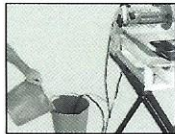
NOTE: To prevent pump damage, the Water Pump must be disconnected if cutting with a Dry Blade.



(A) Remove the Drain Plug



(B) Place the Water Pump in an external container



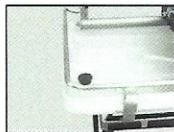
(C) Fill the external container until water completely covers the Water Pump suction



(A) Place an external catch Basin below the Water Pan drain hole

RECIRCULATION

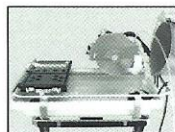
NOTE: When using the re-circulation method, the water should be changed often for longer pump life.



(A) Ensure the Drain Plug is installed in the Water Pan



(B) Place the Water Pump in the back of the Water Pan



(C) Fill the Water Pan until water completely covers the Water Pump suction

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MK-660 SAW SETUP FOR OPERATION

- CAUTION**
1. Check for damaged, broken, or missing parts.
 2. Verify the On/Off switch is in the OFF position.
 3. Before connecting the MK-660 Saw to a power supply, be sure the voltage, cycle and phase of the job site power source meet the requirements of the table below:

VOLTAGE:	120v
CYCLE:	60hz
PHASE:	1-phase

4. If using an extension power cord, make sure the length and wire gauge correspond to the requirements listed in the table on page 10. An extension power cord that is too small in wire gauge (diameter), or too long in length, will cause the motor to overheat and could cause premature failure.
5. Use an approved Ground Fault Circuit Interrupter (GFCI).
6. Do not cover the motor vents as this could lead to motor overheating.

NOTE: In order to avoid breaker tripping, a 20-amp circuit breaker should be used.



(A) Ensure the ON/OFF Switch is in the OFF position
(B) Plug MK-660 Saw into the GFCI
(C) Plug the GFCI into the power source

NOTE: MK Diamond has available, as an accessory item, (Part # 152610) a plug-in GFCI that may be plugged into a properly installed and grounded 3-pole outlet.

PORTABLE GENERATOR

If using a portable generator to provide power, ensure the generator meets the following minimum requirements: 8 KW 120/240 volts 66.7/33.3 amps Single Phase

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CUTTING STRAIGHT EDGES

- CAUTION DO NOT FORCE THE TOOL.** It will do the job better and safer at the rate for which it was designed.



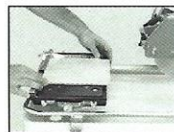
(A) Loosen the adjustable Cutting Guide retaining thumbscrew



(B) Position the adjustable Cutting Guide to desired cut length indicated inside the diamond



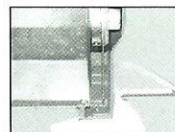
(C) Tighten the retaining thumbscrew



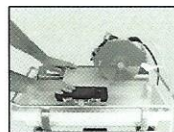
(D) Place the tile against the Ruler/Stop and Cutting Guide



(E) Turn the motor ON



(F) Verify flow on both sides of the blade (See Maintenance Section to adjust flow)



(G) Perform the cut



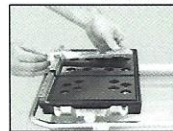
(H) Turn the motor OFF when work is complete

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DIAGONAL CUTTING

NOTE: To cut 45° Diagonals, the 45° Flat Angle Guide (MK Diamond Part No. 134577-MK) should be used.

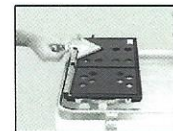
- CAUTION DO NOT FORCE THE TOOL.** It will do the job better and safer at the rate for which it was designed.



(A) Remove the adjustable Cutting Guide

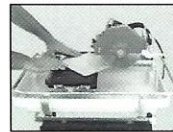


(B) Place the Dual 45° Flat Angle Guide on the Ruler/Stop



(C) Position the Dual 45° Flat Angle Guide and tighten the retaining thumbscrew

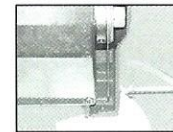
NOTE: If cutting the tile in two equal halves, align the tile in the V-notch of the movable Cutting Table Ruler/Stop.



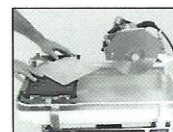
(D) Position the tile against the Dual 45° Flat Angle Guide and the Ruler/Stop



(E) Turn the motor ON



(F) Verify cooling flow on both sides of the blade (See Maintenance Section to adjust flow)



(G) Perform the cut



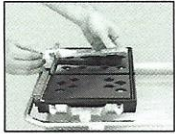
(H) Turn the motor OFF when work is complete

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45° MITER CUTTING

NOTE: To cut 45° Miters, the 45° Bullnose Miter Guide (MK Diamond Part No. 153201-MK) should be used.

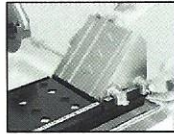
CAUTION DO NOT FORCE THE TOOL. It will do the job better and safer at the rate for which it was designed.



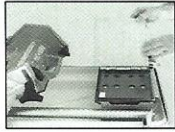
(A) Remove the adjustable Cutting Guide



(B) Place the 45° Bullnose Miter Guide on the Ruler/Stop



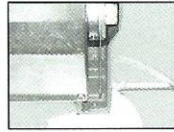
(C) Position the 45° Bullnose Miter Guide and tighten the retaining thumbscrew



(D) Position the tile on the 45° Bullnose Miter Guide and the Ruler/Stop



(E) Turn the motor ON



(F) Verify cooling flow on both sides of the blade (See Maintenance Section to adjust flow)



(G) Perform the cut

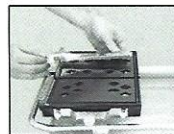


(H) Turn the motor OFF when work is complete

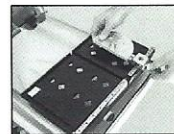
OFF-ANGLE CUTTING

NOTE: To cut angles other than 45° angles, a Protractor (MK Diamond Part No. 134569-MK) should be used.

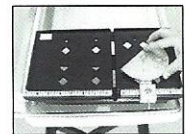
CAUTION DO NOT FORCE THE TOOL. It will do the job better and safer at the rate for which it was designed.



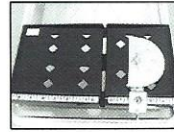
(A) Remove the adjustable Cutting Guide



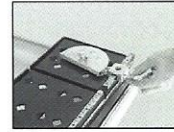
(B) Place the Protractor on the Ruler/Stop



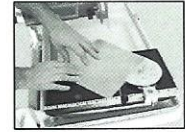
(C) Set the desired angle and tighten the thumbscrew



(D) Position the Protractor cutting guide to the desired cut length indicated inside the diamond



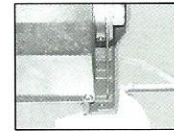
(E) Tighten the retaining thumbscrew



(F) Position the tile against the Protractor and the Ruler/Stop



(G) Turn the motor ON



(H) Verify flow on both sides of the blade (See Maintenance Section to adjust flow)



(I) Perform the cut