

MK-170 TILE SAW OWNER'S MANUAL PARTS LIST & OPERATING INSTRUCTIONS



Revision 101	04.2011
Manual 157243	

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

INTRODUCTION

Congratulations on your purchase of a MK-170 Tile Saw. We are certain that you will be pleased with your purchase. MK-170 Tile Saw takes pride in producing the finest construction power tools and diamond blades in the industry.

Operated correctly, your MK-170 Tile Saw should provide you with years of service. In order to help you, we have included this manual. This owners manual contains information necessary to operate and maintain your MK-170 Tile Saw safely and correctly. Please take the time to familiarize yourself with the MK-170 Tile Saw by reading and reviewing this manual.

Read and follow all safety, operating and maintenance instructions.

If you should have questions concerning your MK-170 Tile Saw, please feel free to call our friendly customer service department at: 800 421-5830

Regards,

MK Diamond

NOTE THIS INFORMATION FOR FUTURE USE:

MODEL NUMBER:	
SERIAL NUMBER:	
PURCHASE PLACE:	
PURCHASE DATE:	

NOTE: For your (1) one year warranty to be effective, complete the warranty card (including the Serial Number) and mail it in as soon as possible.

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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 lighted.



KEEP CHILDREN AWAY

All visitors and children should be kept a safe distance from work area.

**MAKE THE WORKSHOP KID PROOF**

Make the workshops 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. TABLE 1, 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.

**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.

**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/Title8/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 engine 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, grinding 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, grinded, or drilled; See OSHA (29 CFR Part 1910.1200). 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

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

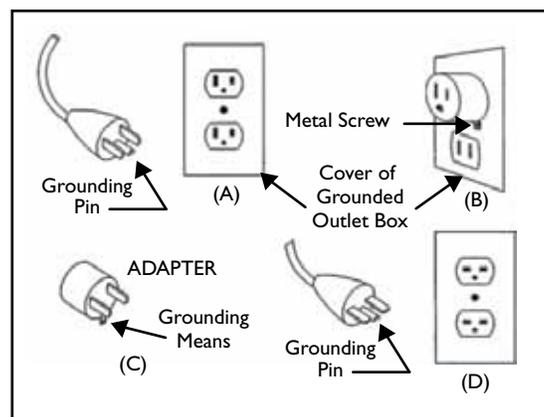
In case of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that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



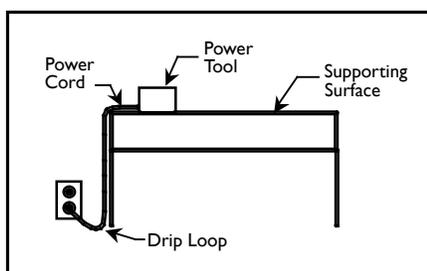
Circuit and Adapter Information

 **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.

**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.

EXTENSION CORD MINIMUM GAGE FOR LENGTH				
VOLTS	TOTAL LENGTH OF CORD IN FEET			
	25 ft. AWG	50 ft. AWG	100 ft. AWG	150 ft. AWG
115v	14	12	Not Recommended	Not Recommended
230v	N/A	14	12	N/A

OPERATION & SAFETY DECALS

The MK-170 Tile Saw is equipped with a number of safety decals. These decals are provided for operator safety and maintenance information. Should any of these operation or safety decals become unreadable, replacements can be obtained by calling **(800) 262-1575**.

(A) **CAUTION**
 Receptacle is for water pump only.
 125V .6 amps max.

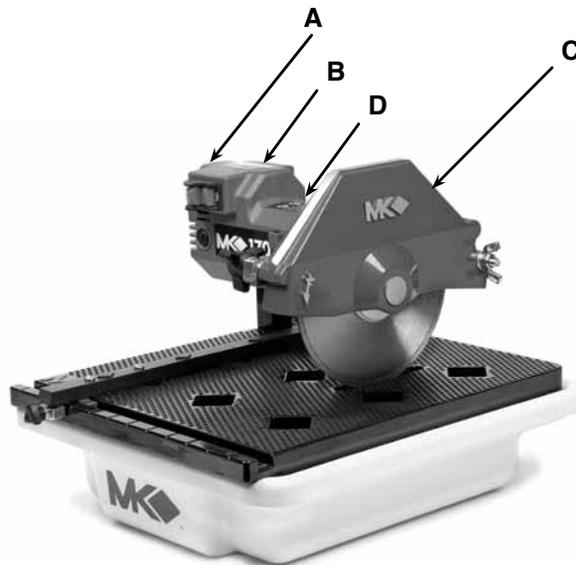
(B) **CAUTION**
 This saw is to be used with a Ground Fault Circuit Interrupter.

(C) FOR INFORMATION ON
SERVICE OR WARRANTY
 PLEASE CALL
 1-800-474-5594

(D) **WARNING**

- For Your Own Safety Read Instruction Manual Before Operating Saw.
- Wear Eye Protection.
- Disconnect Saw Before Servicing, when Changing Cutting Wheels and Cleaning.
- Use Tool Only with Smooth Edge Cutting Wheels Free of Openings and Grooves.
- Replace Damaged Cutting Wheel Before Operating.
- Do Not Fill Water Bath Above Water Fill Line.
- See Manual for Pump Replacement.

Label Sheet Part# 166012



PRODUCT SPECIFICATIONS

The MK-170 is a versatile Tile Saw. Operated and used according to the manual, the MK-170 will provide years of dependable services.

GENERAL DSCRIPTION

The MK-170 Tile Saw is engineered as a tabletop or stand mounted wet tile saw. The saw includes a powerful 120V direct drive AC motor. The saw is capable of cutting tile up to twelve (12) inches in length and one and three quarter (1-3/4) inches thick in one pass.

MOTOR SPECIFCATIONS

Motor specifications for the MK-170 are listed in the table below.

Voltage	120V
Motor Amperage	5
Frequency	50/60 Hz
RPM	5500 rpm
Watts	560
Weight	15 lbs

BLADE CAPACITY

The MK-170 uses a seven (7) inch (178 mm) diameter, wet cutting continuous rim, MK Diamond blade with a five-eighths (5/8) inch (15.875 mm) arbor.

TILE TYPES

The MK-170 can cut a variety of tile types including Porcelain, Terracotta, Marble, Quarry and Slate, or almost any other non-ferrus material.

NOTE: The MK-170 is not designed to cut plastic or ferrous (metals) material.

LOCKOUT

The MK-170 is provided with a Lockout device designed to prevent the operation of the saw when the owner is not around. This Lockout device is a removable Toggle found on the "Rocker" of the ON/OFF Switch. The Removable Toggle has the words "Remove to Lock" imprinted on the top.



(A)

Remove the Toggle from the ON/OFF Switch before using.

CONTENTS

Your MK-170 has been shipped from the factory thoroughly inspected. Only minimal assembly is required.

! CAUTION Use proper lifting techniques when lifting the MK-170.

If not done, remove the MK-170, accessory box from the carton.

In your container, you will find one (1) MK-170 cutting surface, one (1) MK-170 water pan, (1) adjustable cutting guide, (1) 7-inch wet cutting continuous rim diamond blade, one (1) splash guard, one (1) splash guard washer, one (1) splash guard wing nut, one (1) electric water pump, one (1) pump discharge fitting, one (1) blade wrench one (1) shaft wrench, one (1) owner's manual, one (1) pump manual and one (1) warranty card.



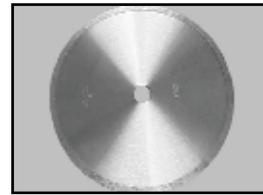
MK-170 Cutting Surface



MK-170 Water Pan



Adjustable Cutting Guide



Diamond Blade



Splash Guard



Splash Guard Washer



Splash Guard Wing Nut



Electric Water Pump



Pump Discharge Fitting



Blade Nut Wrench



Shaft Wrench



Owner's Manual



Pump Manual

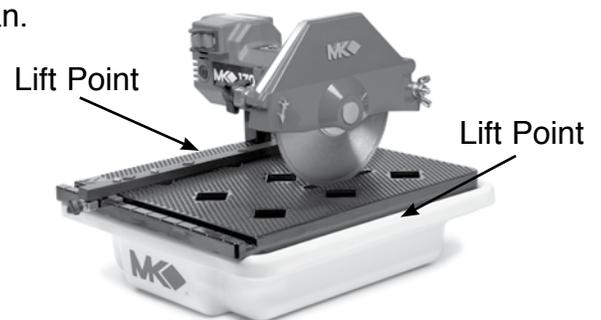


Warranty Card

TRANSPORT

1. The MK-170 weighs approximately fifteen (15) pounds for ease of transport.
2. Never transport the MK-170 with water in the Water Pan.

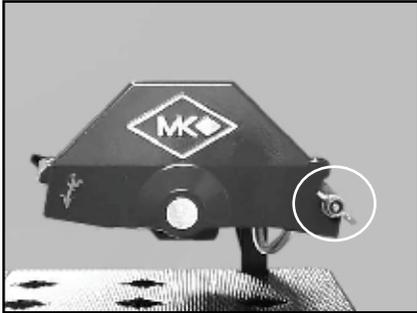
To lift the saw, grasp the Water Pan



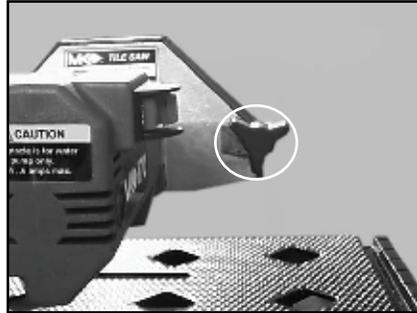
Diamond Blade Installation

Follow the assembly instructions to prepare your MK-170 for operation.

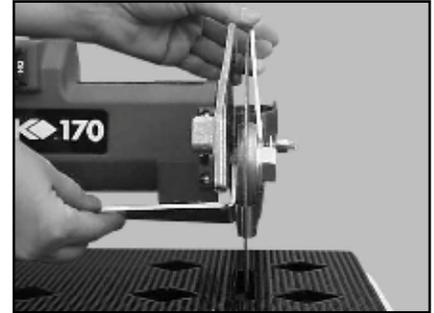
NOTE: When installing the Retaining Screw, do not "cross-thread" and DO NOT over tighten the screw.



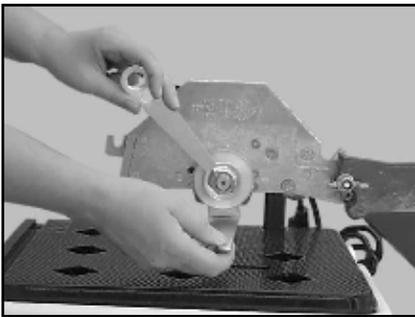
(A)
Loosen the Blade Guard Pivot Point Retaining Wingnut



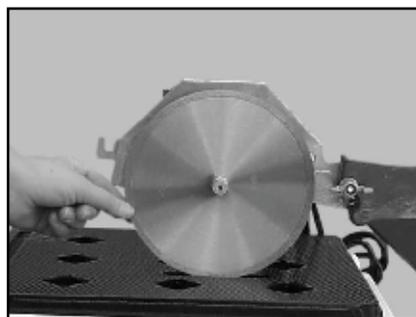
(B)
Loosen the Blade Guard Retaining Thumbscrew



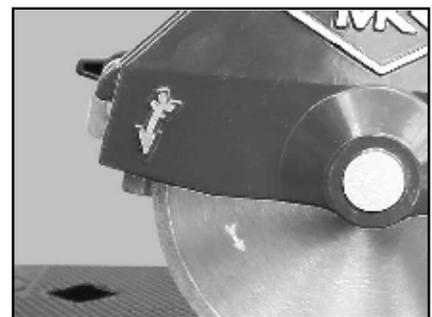
(C)
Open the Blade Guard and place the Shaft Wrench on the Motor Shaft and the Blade Wrench on the Blade Retaining Nut



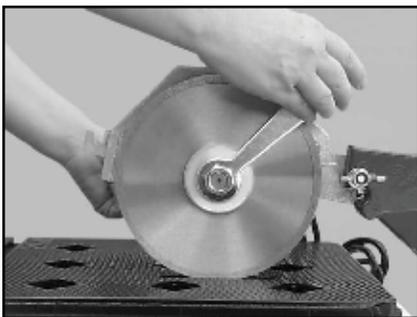
(D)
Remove the Blade Retaining Nut and the Outer Flange



(E)
Install Diamond Blade onto Blade Shaft



(F)
Verify the Directional Arrow of the Blade faces outward and matches the Directional Arrow of the Blade Guard



(G)
Install the Retaining Nut and Outer Flange, place the Shaft Wrench and Blade Wrench as shown in Step C and Tighten the Retaining Nut



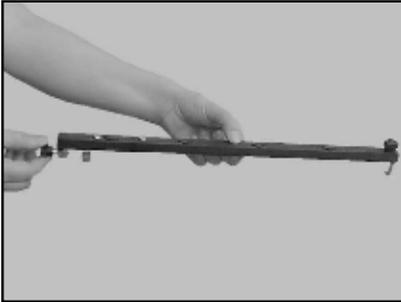
(H)
Close the Blade Guard and tighten the Blade Guard Retaining Thumbscrew



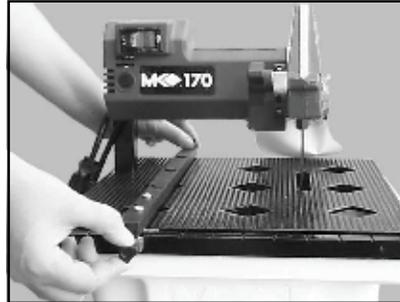
(I)
Tighten the Blade Guard Pivot Point Retaining Wingnut

Adjustable Cutting Guide Installation

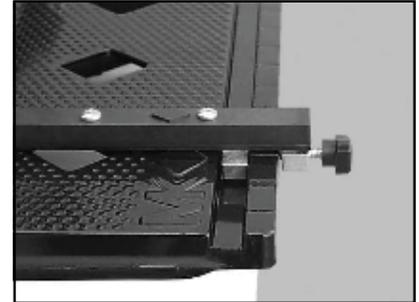
NOTE: When installing the Adjustable Cutting Guide, verify the guide is parallel to the Diamond Blade. If alignment of the Adjustable Cutting Guide is required, see Step 2 in the Adjustment and Operation Section of this manual.



(A)
Loosen the Adjustable Cutting Guide retaining thumbscrews



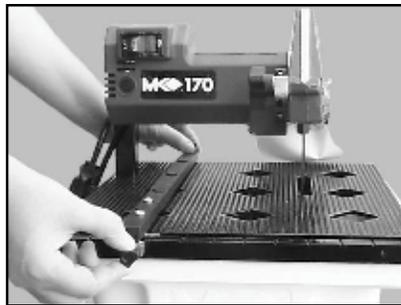
(B)
Place the adjustable Cutting Guide onto the Cutting Table with the Front Guide into the front Guide Slot and the Rear Guide in the rear Guide Slot



(C)
Verify the Front guide is properly seated in the front Guide Slot

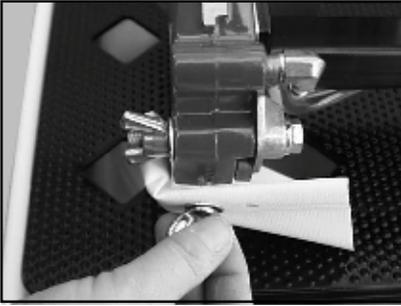


(D)
Verify the Rear Guide is properly seated under the rear guide Slot



(E)
Tighten the Adjustable Cutting guide retaining thumbscrews

Splash Guard Installation



(A)

Install the Thumbscrew through the Washer and Splash guard then align to the hole found on the hole found on back of the Blade Guard and tighten.

Pre-start Inspection

Prior to beginning work, a pre-start inspection of the saw should be performed.



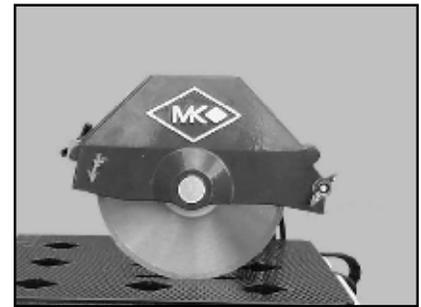
(A)

Ensure the ON/OFF Switch is in the OFF position.



(B)

Inspect the Pump Assembly of damage - ensure the cord is free of cracks or cuts.



(C)

Inspect the Diamond Blade for damage - verify the blade is correct for the material being cut.

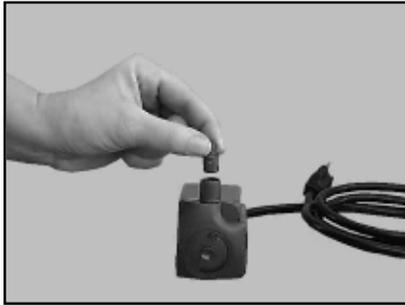


(D)

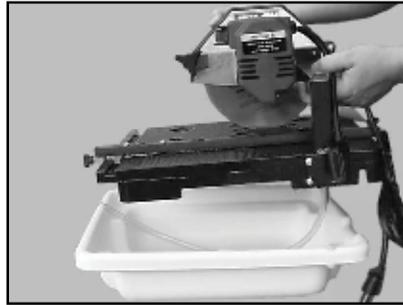
Inspect the MK-170 for damage - ensure the cord is free of cracks or cuts.

Water Pump Preparation

- ⚠ WARNING**
1. To prevent the possibility of electrical shock, the MK-170 **MUST** be de-energized when preparing the Water Pump for operation.
 2. To prevent the possibility of electrical shock, use only MK Diamond qualified replacement parts.



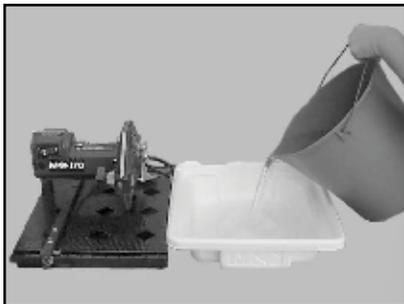
(A)
Install Water Pump Discharge Fitting



(B)
Remove the Cutting Table from the Water Pan



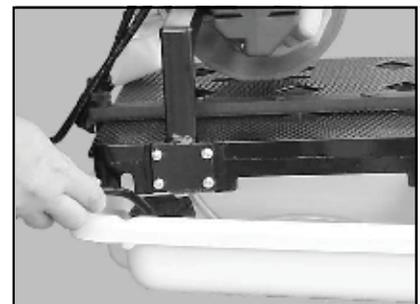
(C)
Press the end of the Cooling Transfer Tube onto the water Pump Discharge Fitting



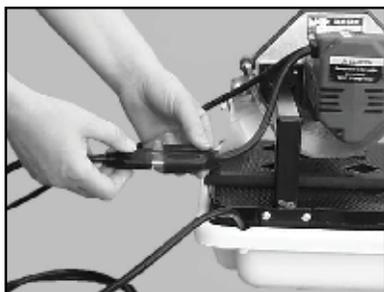
(D)
Fill the Water Pan with clean water (this should be done periodically during cutting).



(E)
Place the Water Pump in the Water Pan-ensure the pump suction is covered.



(F)
Install the Cutting Table; ensure the pump power cord is sealed in the slot behind the Post.



(G)
Connect the Water Pump power cord to the connection found on the back of the motor.

MK-170 Setup for Operation

- ⚠ CAUTION** 1. Before connecting the MK-170 to a power supply, be sure the voltage, cycle and phase meet the requirements of the table below.

Voltage - 120V	Cycle - 60 Hz	Phase - 1 Phase
----------------	---------------	-----------------

2. If using an extension cord, make sure the length and wire gauge correspond to the requirements listed in table on page 8. An extension 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.
3. Use an approved Ground Fault Circuit Interrupter (GFCI)
4. 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)

Plug MK-170 into the GFCI (A GFCI should always be used when operating the MK-170).



(B)

Plug the GFCI into the Power source.

Cutting Tile

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



(A)

Position the Adjustable Cutting Guide to desired cut length as measured from the Blade



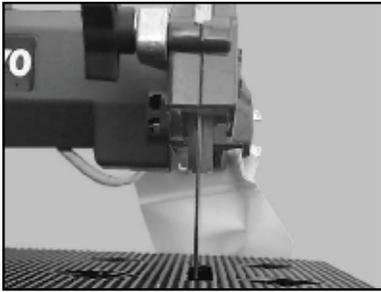
(B)

Place the tile against the adjustable Cutting Guide



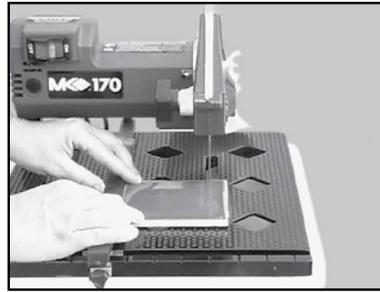
(C)

Place the ON/OFF Switch in the ON position



(D)

Verify cooling flow on both sides of the blade (adjust flow if necessary - See Maintenance Section)



(E)

Push the Tile into the Blade in a smooth even motion to perform a cut



(F)

Turn the motor OFF when work is complete

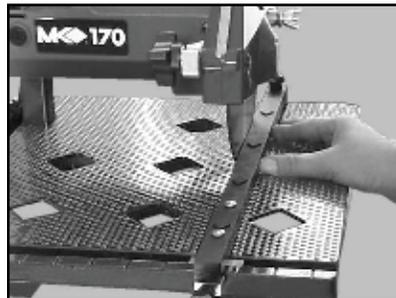
Adjustable Cutting Guide Alignment

If during the cutting operation it is found that Adjustable Cutting is not aligned to the Blade, perform the following operation.



(A)

Loosen the Adjustable Cutting Guide Alignment Screws



(B)

Gently align the Adjustable Cutting Guide to the Blade



(C)

Tighten the Adjustable Cutting Guide Alignment Screws

Cleanup

NOTE: Dispose of wastewater in accordance with applicable Federal, State and Local laws.



(A)
Ensure the ON/OFF Switch is in the OFF position



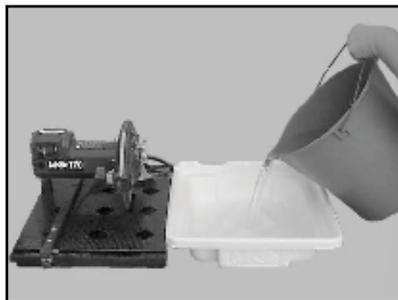
(B)
Remove the Cutting Table from the Water Pan



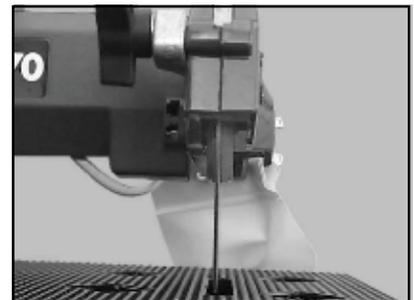
(C)
Dispose the contents of the Water Pan



(D)
Remove the pump Suction Screen and clean the Water Pump of all debris



(E)
Fill the Water Pan with clean water. Place Cutting Table on Water Pan.



(F)
Run the MK-170 until clear water is seen at the blade cooling ports (Approx. 1 minute)

CAUTION

Ensure the saw is disconnected before completing the remainder of the cleanup process.



(G)
Turn the motor OFF when work is complete



(H)
Unplug the GFCI from the Power source



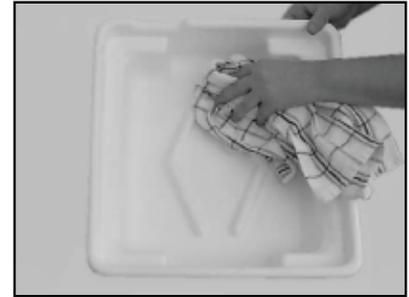
(I)
Remove the Cutting Table for the Water Pan



(J)
Dispose the contents of the
Water Pan

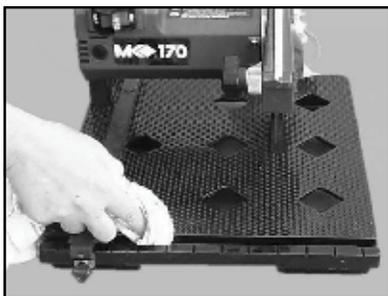


(K)
Clean the MK-170 with soap
and clean water



(L)
Clean the Water Pan

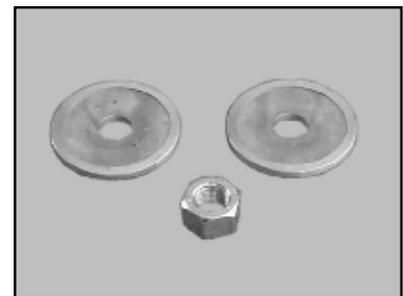
NOTE: To extend the life of the MK-170, lubricate the Motor Shaft with light oils such as, 3 in 1, WD-40, etc.



(M)
Clean the cutting Table, Motor
and Adjustable Cutting Guide



(N)
Monthly, remove the Blade then
clean and lubricate the Motor
Shaft



(O)
Clean the Inner and Outer
Flanges and the Blade
Retaining Nut

Blade Dressing

Like most cutting instruments, a diamond blade performs best when it is dressed. Over time and use, diamonds on the outer edge of the blade will become smoothed or "glazed" over. This will reduce grinding efficiency and may cause the blade to "wander" or bend giving the illusion of an alignment problem. When this occurs, the blade will need to be dressed. The diamond blade can be dressed using the MK Dressing Stick (part number 152972) and by following the steps below.



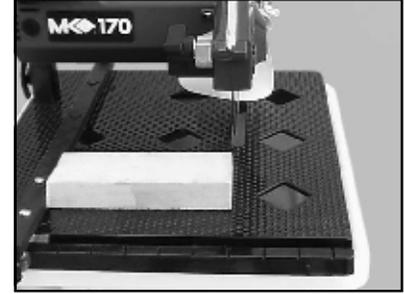
(A)

Setup the MK-170 for operation
(See Setup, Adjustment and
Operation).



(B)

Set the Adjustable cutting
Guide to cut a 1/16-strip.



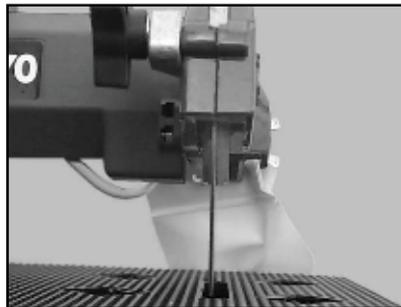
(C)

Position the Dressing Stick.



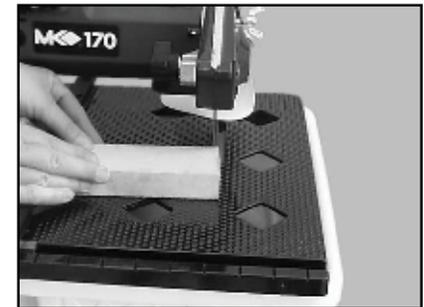
(D)

Place the ON/OFF Switch in
the ON position.



(E)

Verify cooling flow on both
sides of the blade (adjust flow if
necessary - See Maintenance
Section)



(F)

Push the Dressing Stick into
the Blade in a smooth even mo-
tion to perform a cut, repeat 7
or 8 times to dress the Blade.



(G)

Turn the motor OFF when work
is complete.

Motor Brush Change-out

⚠ WARNING

Disconnect the tool before servicing and when changing accessories, such as blades, bits, cutters, and the like.



(A)
Disconnect the MK-170.



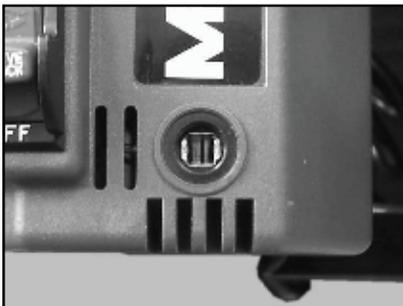
(B)
Locate and Remove One Motor Brush Cap using a Flat Head Screwdriver.



(C)
Remove Motor Brush Housing Cover.

NOTE:

When installing motor brushes, care must be taken to ensure the spring end is straight before installing the Motor Brush Cap.



(D)
Clean the Motor Brush Housing using a Q-tip.



(E)
Align and install the new Motor Brush.



(F)
Install Motor Brush Cap and tighten using a Flat Head Screwdriver.

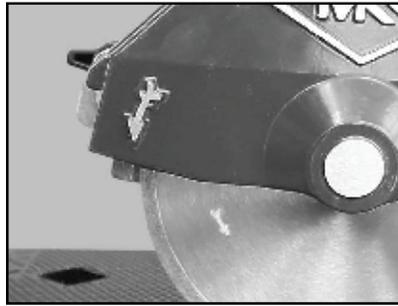


(G)
Install the Second Motor Brush (Repeat Steps B to F).

Blade will not cut properly



(A)
Check for Smoothness or "Glazing" (Dress Blade if needed).



(B)
Check for proper rotation.



(C)
Ensure the Blade Core is not bent and Arbor is not out of round



(D)
Verify the blade is correct for the material being used.

Cooling Flow



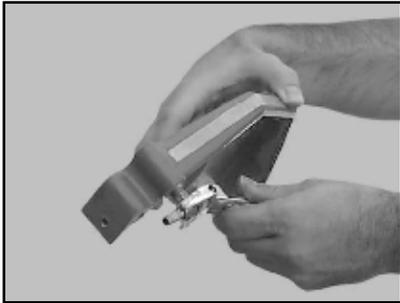
(A)
Check that the Cooling flow Adjusting Valve is FULL open.



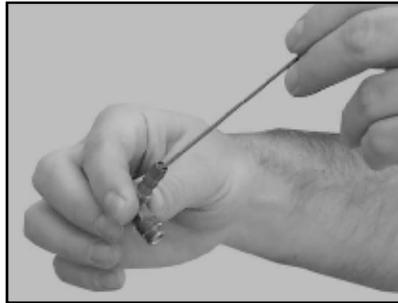
(B)
Remove the pump suction screen and clean the Water Pump of all debris.



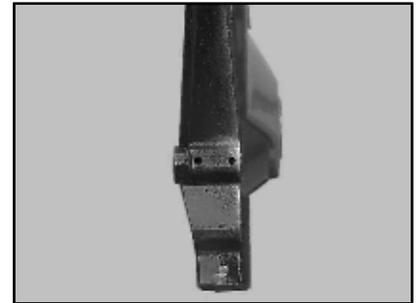
(C)
Remove the Cooling Transfer Tube from the Blade Guard inlet. Inspect for blockage.



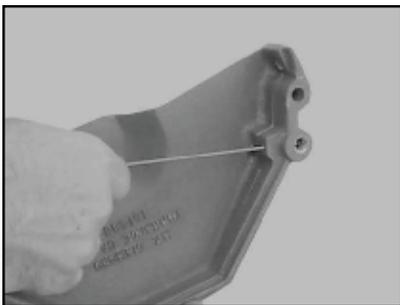
(D)
Remove the Blade Guard In-
take Fitting.



(E)
Clean the Blade Guard Intake
Fitting.



(F)
Locate the Blade Guard
Cooling Channels.



(G)
Rod Cooling channels and
recheck flow.

Blade Stops Turning



(A)
Check the ON/OFF Switch is in
the ON position.

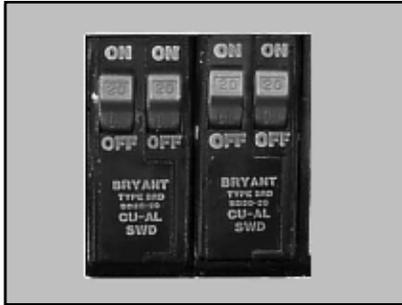


(B)
Verify all plugs are fully
connected.



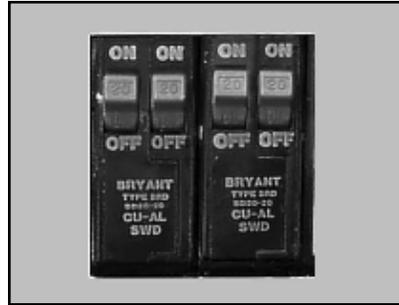
(C)
Check to see if the Ground
Fault Circuit Interrupter (GFCI)
is tripped.

NOTE: "Rodding" cooling channels is performed by inserting a small wire rod through the cooling inlet on top of the Blade Guards and directing the rod out through each of the cooling flow tubes located on the underside of the Blade Guard. The cooling channels should be "rodded" until all ports are free of foreign debris.



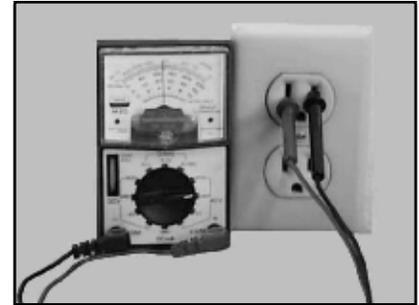
(D)

Verify the circuit breaker is at least 20 amps - if not, more to 20-amp circuit.



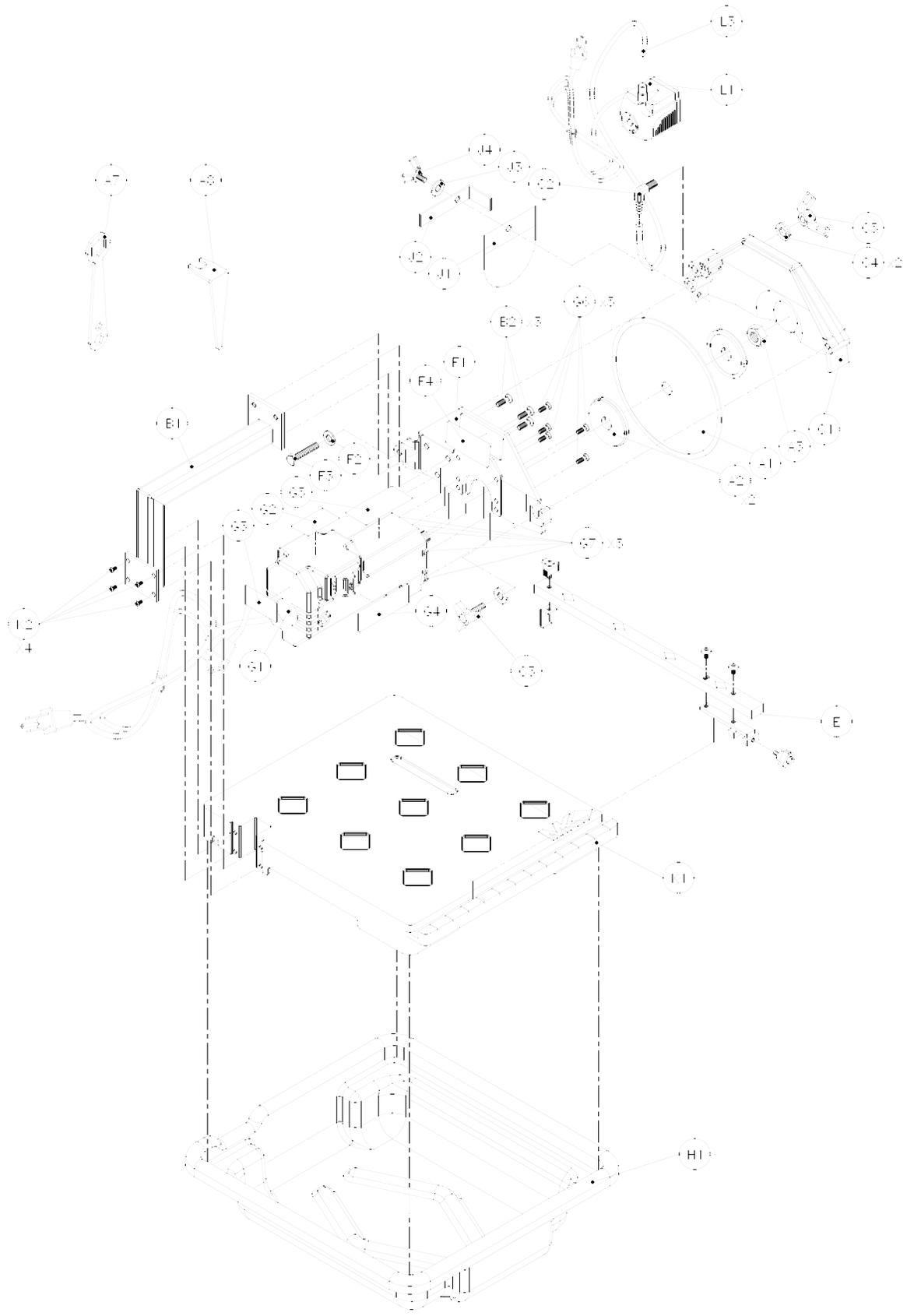
(E)

Verify circuit breaker not tripped; if it is tripped, reset it once only.



(F)

Check power source voltage is 120V - if not 120V, move another circuit.



Item	Description	Qty	Part #
A	Accessories, 170	--	--
A1	Blade, 7 Dia x 5/8 Arbor MK-170	1	153441
A2	Flange, Blade	2	135830
A3	Nut, 5/8-18 UNF	1	135848
A4	Owner's Manual, 170	1	157243
A7	Wrench, Blade Nut, 15/16 Boxed End	1	134684
A8	Wrench, Blade Shaft, 11/16 Open End, 90°	1	157244
B	Arm, Motor Support	--	--
B1	Arm, Motor Support	1	157245
B2	Screw, 1/4-20 x 1/2 Flat Head Phillips Cap	3	155812
C	Assembly, Blade Guard, 7"	1	154811-MK
C1	Guard, 7" Blade	1	154811
C2	Elbow, 1/8 MNPT x 1/4 BARB 90° Brass	1	154652
C3	Knob, Davies	1	151681
C4	Washer, 5/16 SAE Flat	2	151754
C5	Wing nut, 5/16-18 Nylock	1	151746
E	Assembly, Fence, 170	1	157406
E1	Fence, Upper	1	157247
E2	Fence, Lower	1	157248
E3	Screw, 10-24 x 3/8 Pan Head Phillips Machine	2	151097
E4	Knob, 1/4-20 x 3/4 Three Prong	1	157583-2
E5	Knob, 10-32 x 1/2 Three Prong	1	157583-1
E6	Clip, Fence	1	157559
F	Motor Mount	--	--
F1	Motor Mount	1	157403
F2	Washer, 5/16 Split Lock	1	151747
F3	Screw, 5/16-18 x 2 1/2 Hex Head Cap, Full Thread	1	151748
F4	Tag, Serial Number, UL Mark	1	157249-02
G	Motor, 120v/4.7a, 170	--	--
G1	Motor, 120v/4.7a, 170	1	157226-G
G2	Label, Caution, GFCI, 1 x 2 1/8	1	155678
G3	Label, Caution, Receptacle, 1 x 2 1/8	1	154822
G4	Label, Motor, 170	1	157251
G5	Label, Warning, Read Owner's Manual	1	155806
G6	Screw, M5-.8 x 20mm Flat Head Phillips Machine	5	157404
G7	Nut, M5-.8 Hex	5	157405
H	Pan, Water, 170	--	--
H1	Pan, Water, 170	1	157252
J	Splash Curtain	--	--
J1	Curtain, Splash	1	134841
J2	Bracket, Splash Curtain	1	155901
J3	Washer, 1/4 SAE Flat	1	151915
J4	Wing-screw, 1/4-20 x 1/2	1	151888

Item	Description	Qty	Part #
K	Table, 170	--	--
K1	Table, 170	1	157253
K2	Screw, 10-24 x 1/2 Pan Head Phillips Machine	4	151744
L	Water Pump, PES-100 120v	--	--
L1	Pump, Water, PES-100 120v	1	155987
L3	Hose, Vinyl, 1/4 ID	34"	132951
L4	Owner's Manual, Water Pump	1	155745

THEORY OF DIAMOND BLADES

Diamond blades do not really cut; they grind the material through friction. Diamond crystals, often visible at the leading edge and sides of the rim/segment, remove material by scratching out particles of hard, dense materials, or by knocking out larger particles of loosely bonded abrasive material. This process eventually cracks or fractures the diamond particle, breaking it down into smaller pieces. As a result, a diamond blade for cutting soft, abrasive material must have a hard metal matrix composition to resist this erosion long enough for the exposed diamonds to be properly utilized. Conversely, a blade for cutting a hard, non-abrasive material must have a soft bond to ensure that it will erode and expose the diamonds embedded in the matrix. These simple principles are the foundation of “controlled bond erosion.”



TYPES OF CUTTING

There are two basic types of cutting-Dry or Wet. The choice of which type of blade to use depends on:

- The requirements of the job
- The machine/tool utilizing the diamond blade
- The preference of the operator

In the case of DRY cutting, the overwhelming popularity and quantity of hand-held saws and the flexible nature of MK Diamond blades to professionally handle most ceramic, masonry, stone and concrete materials, make the DRY cutting blade a very attractive tool. When using a DRY blade, the user must be aware of distinct operating practices to ensure optimum performance. DRY cutting blades require sufficient airflow about the blade to prevent overheating of the steel core. This is best accomplished by shallow, intermittent cuts of the material with periods of “free-spinning” (for several seconds) between each cut, to maximize the cooling process.

For WET cutting applications, MK has the exact blade to compliment both the material to be cut and the wet cutting machine to be used. During cutting operations, liberal amounts of water act as a coolant to support the cutting effectiveness and longevity of the WET blade. Additionally, using water adds to the overall safety of cutting operations by keeping the dust signature down.

Know All You Can About the Material You Wish to Cut

ORDERING INFORMATION

You may order MK Diamond products through your local MK Diamond distributor or, you may order direct from MK Diamond.

NOTE: There is a \$25.00 minimum order when ordering direct from MK Diamond. All purchases must be made using VISA, MasterCard or American Express.

When ordering direct from MK Diamond, please have the following information ready before calling:

- The Model Number of the saw
- The Serial Number of the saw
- Where the saw was purchased and when
- The Part Number for the part(s) being ordered
- The Part Description for the part(s) being ordered

All parts may be ordered by calling toll free to – 800 421-5830 or 310 539-5221 and asking for Customer Service. For technical questions, call – 800 474-5594.

RETURN MATERIALS POLICY

To expedite the service relative to the return of a product purchased through MK Diamond, please observe the following:

NOTE: When returning all items, they must have been purchased within the previous twelve (12) months.

- Have the Model Number of the saw
- Have the Serial Number of the saw
- Have the location of where the saw was purchased
- Have the date when the saw was purchased
- Contact Customer Service for approval to return the item(s)
- Obtain a Returned Goods Number (RGA) authorizing the return
- Follow the packaging instructions in the following section
- Ensure your item(s) are prepaid to the destination

For returned items, call toll free to – 800 421-5830 or 310 539-5221 and ask for Customer Service. For technical questions, call – 800 474-5594 or 310 257-2845.

PACKAGING INSTRUCTIONS

- Remove the Cutting Head and Support Angle Assembly
- Dry the saw before shipping
- When packing, include the following: MK-170, Diamond Blade, Blade Guard and Support Angle Assembly and Adjustable Cutting Guide (Other Accessories are not required)
- Package the unit in its original container or one of comparable size (do not ship the unit partially exposed)
- Ensure all parts are secured in the packaging to prevent moving

AUTHORIZED SERVICE CENTERS

For quicker repair time, you may contact MK Diamond Customer Service, toll free, at 800 421-5830 or 310 539-5221 for the Authorized Service Center closest to you or visit our web site at www.mkdiamond.com. For technical questions, call – 800 474-5594.

MK-170 TILE SAW
OWNERS MANUAL & OPERATING INSTRUCTIONS



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