

www.mkdiamond.com

# BX-3 MASONRY SAW OWNER'S MANUAL & PARTS LIST

MODELS	PART #
BX-3 (Dry)	157721X
BX-3 (Wet)	157721WX



Revision 108	12.2019
Manual Part No. 158168	

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

## INTRODUCTION

Congratulations on your purchase of a BX-3 Masonry Saw. We are certain that you will be pleased with your purchase. We take pride in producing the finest construction power tools and diamond blades in the industry.

Operated correctly, your 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 Saw safely and correctly. Please take a few minutes to familiarize yourself with the BX-3 Masonry Saw by reading and reviewing this manual.

If you should have questions concerning your BX-3 Masonry Saw, please feel free to call our friendly customer service department at: 800 421-5830

Regards,

MK Diamond

### NOTE THIS INFORMATION FOR FUTURE USE:

<b>MODEL NUMBER:</b>	
<b>SERIAL NUMBER:</b>	
<b>PURCHASE PLACE:</b>	
<b>PURCHASE DATE:</b>	

**WARRANTY:** For your (1) one year warranty to be effective, complete the online Product Registration as soon as possible. Visit [www.mkdiamond.com/registration/](http://www.mkdiamond.com/registration/)

# TABLE OF CONTENTS

## **SAFETY**

Safety Message/Alert Symbols	4
Damage Prevention Message	5
General Safety Precautions	5-7
California Proposition 65 Message	8
Electrical Requirements and Grounding Instructions	9-12
Safety Decal Locations	13
Product Specifications	14

## **UNPACKING AND ASSEMBLY**

Contents	15
Transport	16
Assembly	16-17

## **SETUP, ADJUSTMENT AND OPERATION**

Setup	18-19
Adjustment and Operation	19-21
Cleanup	22

## **MAINTENANCE AND TROUBLESHOOTING**

Maintenance	23-27
Troubleshooting	28-29

## **EXPLODED VIEW AND PARTS LIST**

Exploded View & Parts List	30-39
----------------------------	-------

## **ACCESSORIES**

Accessories and Replacement Parts	40
-----------------------------------	----

## **ORDERING AND RETURN INSTRUCTIONS**

Ordering Information	42
Return Materials Policy	42
Contact Information and Limited Warranty	43

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 warnings and guidelines do not by themselves eliminate danger. They are not substitutes for proper accident prevention procedures and good judgement.

## 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!



**ALWAYS** read this Owner's Manual before operating the machine. **DO NOT** operate or service this equipment before reading this entire manual. Read and understand all warnings, instructions and controls on the machine. Know how to stop the equipment quickly in case of emergency. It is the operators responsibility to use this machine under safe working conditions and conform with federal, state and local codes or regulations pertaining to safety, air, pollution, noise etc...



**ALWAYS** keep the Blade and Belt Guards in place. **DO NOT** operate this machine with any guard or safety device removed. A Guard, or any damaged part should be repaired or replaced immediately.



**NEVER** operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices required by the job. Non-slip foot wear is recommended.



### PERSONAL PROTECTIVE EQUIPMENT

**ALWAYS** wear approved respiratory, head, ear and eye protection when operating this machine.



### ACCIDENTAL STARTS!

Before starting the engine/motor, be sure the **ON/OFF** switch is in the **OFF** position to prevent accidental starting. Place the **ON/OFF** switch in the **OFF** position before performing any service operation. **ALWAYS** place the power **ON/OFF** switch in the **OFF** position when the machine is not in use.



### 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.



### HOT PARTS!

Engine components can become extremely hot from operation. To prevent severe burns, do not touch these areas while the engine is running, or immediately after it is turned off. Never operate the engine with heat shields 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.



### ELECTRICAL SHOCK

**NEVER** touch electrical wires or components while the engine is running. Exposed, frayed or worn electrical wiring and plugs can be sources of electrical shock which could cause severe injury or burns. Do not touch the plug with wet hands.



**ALWAYS** avoid inhalation of and skin contact with silica dust and/or mist. Provide proper dust removal. Use dust-collection system when applicable.



**NEVER** operate the machine in an explosive atmosphere or near combustible materials. Sparks from the cutting-action of this machine can ignite flammable materials, liquids, gases or dust.



This equipment should not be operated by persons under 18 years of age.



### KEEP CHILDREN AWAY

All visitors and children should be kept a safe distance from work area. Maintain a safe operating distance to other personnel.



### MAKE THE WORKSHOP KID PROOF

Make the workshops kid proof by using padlocks, master switches or by removing starter



### DO NOT FORCE THE TOOL

A power tool will do a job better and safer operating at the rate for which it was designed. **DO NOT** force a tool or an attachment to do a job that it was not designed to do.

**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.

**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.

**DISCONNECT TOOLS**

Power tools should always be disconnected before servicing, adjusting or when changing accessories, such as blades, bits, cutters, and the like.

**MAINTAIN TOOLS WITH CARE**

Keep tools clean and maintained for the best and safest performance. Always follow maintenance instructions and examine the machine before use. If any abnormal vibrations or noises occurs, turn off machine immediately and have the problem corrected before further use.

**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. Keep area around machine clear of obstructions which could cause persons to fall.

**DO NOT USE IN DANGEROUS PLACES**

**DO NOT** operate equipment in dangerous or hazardous environments. **DO NOT** use power tools in damp or wet locations nor expose them to rain. Always keep the work area well lighted.

**USE RECOMMENDED ACCESSORIES**

Consult the owner's manual for recommended accessories. Using improper accessories may increase the risk of personal or by-stander injury. Unauthorized equipment modifications will void all warranties. Manufacturer does not assume responsibility for any accident due to equipment modifications.



**ALWAYS** ensure that the machine is on level ground before using.

**NEVER STAND ON THE TOOL**

Serious injury could occur if a power tool is tipped, or if a cutting tool is unintentionally contacted.

**TRANSPORT**

When loading or unloading the machine, use caution. Remove the blade prior to hoisting, loading and transporting the machine.

**CHECK FOR DAMAGED PARTS**

Before using a power tool, check for damaged parts. A guard or any other part that is damaged should be carefully checked to determine if it 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. Always check the machine for loose bolts before starting.

**DIRECTION OF ROTATION**

A blade or cutter should always be installed so that rotation is in the direction of the arrow imprinted on the side of the blade or cutter. It should correspond with the rotational direction of the motor. Always feed work into a blade against the direction of rotation.

**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.



**NEVER** disconnect any "emergency or safety devices". These devices are intended for operator safety. Disconnection of these devices can cause severe injury, bodily harm, or even death! Disconnection of any of these devices will void all warranties. Unauthorized equipment modifications will void all warranties. Manufacturer does not assume responsibility for any accident due to equipment modifications.



**NEVER** use this machine with any cutter designed for woodworking.



**NEVER** operate this equipment when not feeling well due to fatigue, illness or taking medicine.



**NEVER** operate this equipment under the influence of drugs or alcohol.



On belt driven equipment, overtensioning of belts will result in premature crank and/or bearing failure.



Whenever necessary, replace nameplate, operation and safety decals when they become difficult to read.



**ALWAYS** store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children



**DO NOT** lend or rent this equipment without including the Owner's Manual and the Engine/Motor Manufacturer's Manual.



Check the chemical properties of the material to be cut/grinded and follow all EPA/OSHA Regulations. (cut/ground)

## **SILICA DUST WARNING**

---

Grinding/cutting/drilling of masonry, concrete, metal and other materials with silica in their composition may give off dust or mists containing crystalline silica. Silica is a basic component of sand, quartz, brick clay, granite and numerous other minerals and rocks. Repeated and/or substantial inhalation of airborne crystalline silica can cause serious or fatal respiratory diseases, including silicosis. In addition, California and some other authorities have listed respirable crystalline silica as a substance known to cause cancer. When cutting such materials, always follow respiratory precautions.

Use appropriate NIOSH-approved respiratory protection where dust hazard may occur. Paper masks or surgical masks without a NIOSH approval number are not recommended because they do little to protect the worker. For more information about respirator programs, including what respirators have received NIOSH approval as safe and effective, please visit the NIOSH website at:

<http://www.cdc.gov/niosh/topics/respirators>

Observe OSHA regulations for respirator use (29 C.F.R. §1910.134).

Visit <http://www.osha.gov> for more information.

## **CALIFORNIA PROPOSITION 65 MESSAGE**

---

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/dsg/topics/silicacrystalline/index.html>

<http://www.cdc.gov/niosh/docs/96-112/>

<http://oehha.ca.gov/prop65/law/P65law72003.html>

<http://www.dir.ca.gov/Title8/sub4.html>

<http://www.P65warnings.ca.gov>

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 dust masks that are specially designed to filter out microscopic particles. Where use of a dust extraction device is possible, it should be used. To achieve a high level of dust collection, use an industrial HEPA vacuum cleaner. Observe OSHA 29 CFR part 1926.57 and 1926.103.

**ELECTRICAL REQUIREMENTS AND GROUNDING INSTRUCTIONS**

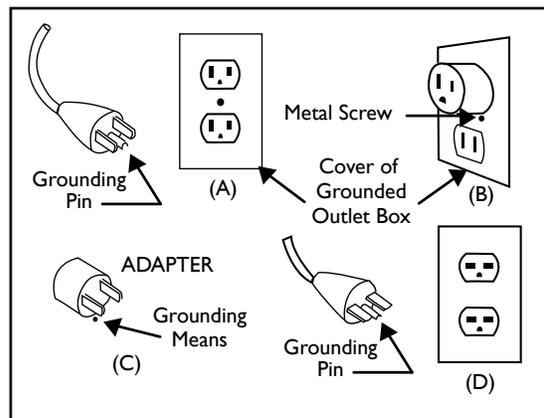
In order to prevent electrical shock and injury, the following electrical safety precautions and symbols should be followed at all times!

**⚠ WARNING**

In case of a malfunction or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electric shock. This tool is equipped with an electric cord which has 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.

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, plug, and the like, extending from the adapter, must be connected to a permanent ground, such as a properly grounded outlet box.



Circuit and Adapter Information

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

**NOTE:** If permanently connected this tool should be connected to a grounded metal permanent wiring system; or to a system having an equipment - grounding conductor.

## ELECTRIC MOTOR SAFETY

---

For maintenance care and operation of the electric motor, refer to your electric motor instruction booklet furnished with the electric motor. Protect the electric motor from dust as much as possible and keep ventilating openings clean. Before plugging in the machine, make sure that the outlet voltage is within the voltage marked on the machines's data plate.



### CAUTION



**DO NOT** spray water on the electric motor. **DO NOT** touch the plug with wet hands. To reduce the risk of electrocution, keep all connections dry and off the ground.



**DO NOT** operate electric motor in an explosive environment.



### DO NOT EXPOSE TO RAIN

**DO NOT** expose to rain or use in damp locations.



### WARNING



If operating the equipment in damp locations is unavoidable, **ALWAYS** use a Ground Fault Circuit Interrupter, **ALWAYS** wear rubber gloves and footwear in damp conditions.



**DO NOT** abuse the cord. Never use the cord to carry the equipment or to pull the plug from the outlet. Keep the cord away from heat, sharp edges, and moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.



### WARNING

To reduce the risk of electrocution, keep all connections dry and off the ground. A Ground Fault Circuit Interrupter (GFCI) should be provided on the circuit(s) or outlet(s) to be used for this machine. Receptacles are available having built-in GFCI protections and may be used for this measure of safety. When using an extension cord, GFCI should be installed closest to the power source, followed by the extension cord and lastly, the machine.



### WARNING

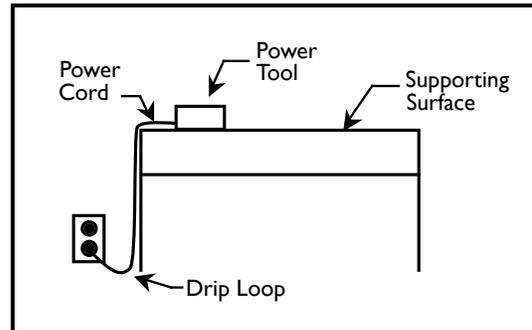
The water pump requires a GFCI. To reduce risk of electrical shock when operating the machine with the pump plugged into the 3-pole receptacle on the motor, connect the machine to a GFCI outlet. See the pump manual and informational tags enclosed separately for all pump information.

**WARNING**

To avoid the possibility of the appliance or plug receptacle getting wet, position the machine to one side of a wall mounted receptacle. This will prevent water from dripping into 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. Use the drip loop as a way to prevent GFCI and plug from getting wet.

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.

**ALWAYS** make certain that the power source required for the electric motor is correct and always use the correct NEMA configuration plug. Motors can burn out when the line voltage falls 10% below the voltage rating of the motor. Failure to use proper voltage will cause the motor to overheat. Make certain that the correct size grounded (3-wires) extension cord is used.



**WARNING**

Use of undersized 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.

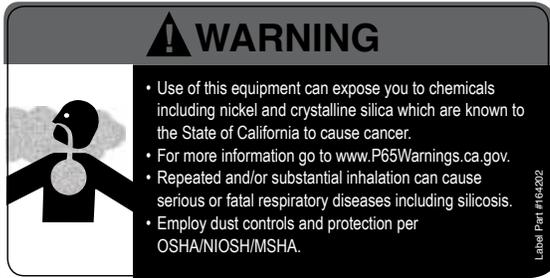
To choose the proper extension cord,

- 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.

MOTOR SPECS			EXTENSION CORD LENGTH		
Motor	Voltage	Amps	25'	50'	100'
157801	120V 1 Ph	15	14 ga	10 ga	8 ga

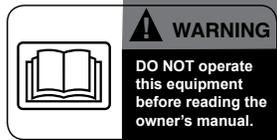
**SAFETY LABEL LOCATIONS**

Safety 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.



Part # 164202

A



Part # 154398

B

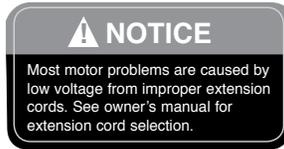


Part # 155038

C



Part # 170480



Part # 155672

E



Part # 154398

F

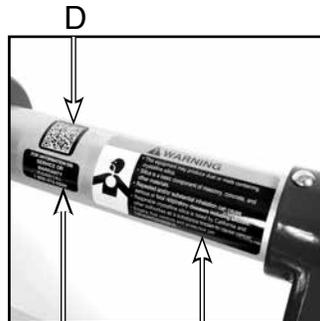


Part # 155588

G

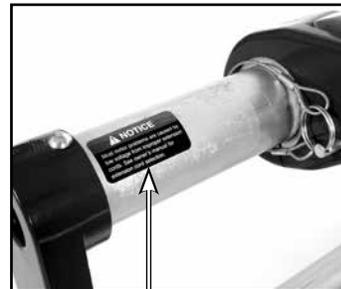


B



C

A



E



G



F

Decal/Label	Location	Description
A	Arm	Warning - Silica
B	Motor	Warning - Read Manual
C	Arm	Service/ Warranty
D	Arm	QR Code for Manual
E	Arm	Notice - Extension Cord
F	Blade Guard	Caution - Guards in Place
G	Blade Guard	Warning - Replace Blade Guard

**PRODUCT SPECIFICATIONS**

The BX-3 is a versatile lightweight masonry saw. Operated and used according to this manual, the BX-3 will provide years of dependable service.

**General Description**

The BX-3, Brick Xtreme, is engineered as a 14" saw, consisting of a powerful 120V motor in a hard plastic case. The saw is capable of cutting brick and masonry up to 8" x 8" x 16" in size; blade has a five (5) inch cutting depth.

**Specifications**

Motor and Weight specifications for the BX-3 are listed in the Table below.

<b>Motor</b>	120V/60Hz
<b>Horsepower</b>	1-3/4Hp
<b>RPM</b>	3500
<b>Blade Capacity</b>	14"
<b>Arbor Size</b>	1"
<b>Depth of Cut</b>	5" (406mm)
<b>Length of Cut</b>	16" (22.7kg)
<b>LxWxH</b>	30" x 22" x 18"
<b>LxWxH (mm)</b>	762 x 559 x 457
<b>Weight</b>	50 lbs.
<b>Part#</b>	157751X ( <i>Dry</i> )
	157721WX ( <i>Wet</i> )

**Blade Capacity**

The BX-3 uses a 14-inch diameter segmented dry MK diamond blade with a .110-inch cutting width.

**Masonry Types**

The BX-3 can cut a variety of masonry types including, cinder block, slump stone block, wall brick, paver brick, concrete block and cylinders, roofing tile, marble, granite, decoration rock or almost any other nonferrous material.

**NOTE:** The BX-3 is not designed to cut plastic or ferrous (metals) material.

**Spring Assisted Cutting Head**

The BX-3 is designed with a spring assisted Cutting Head to allow easier step cutting. The Cutting Head can be locked in the down position when cutting smaller pieces.

**Lockable Trigger Switch**

The BX-3 is designed with a lockable trigger-operating switch in the handle to allow for ease of operation.

**Removable Motor Air Filter**

The BX-3 is designed with an easy clean motor air filter to extend the life of the motor.

**Replaceable Motor Brushes**

The BX-3 is designed with replaceable motor brushes to extend operating life.

**UNPACKING**

Your BX-3 has been shipped from the factory thoroughly inspected. Only minimal assembly is required.

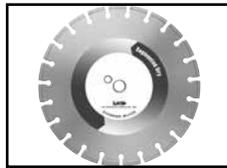
If not already done, remove the BX-3 from the carton and place it on a flat surface. Remove Strapping. Remove the Accessories box from the main carton and place along side the BX-3 .

**CONTENTS**

In the containers, you will find one (1) BX-3, one (1) 14 inch segmented dry diamond blade (or segmented block blade), one (1) movable cutting table, one (1) adjustable cutting guide, one (1) blade wrench, one (1) shaft wrench, one (1) owner's manual and one (1) warranty card.



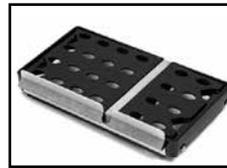
BX-3



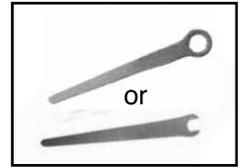
Segmented Dry Diamond Blade



Adjustable Cutting Guide



Adjustable Cutting Guide



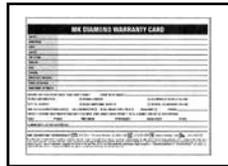
Blade Wrench



Shaft Wrench



Owner's Manual



Warranty Card



Water Pan  
(Wet Cutting Saw)

**TRANSPORT**

The BX-3 weighs approximately fifty (50) pound, making transport easy.

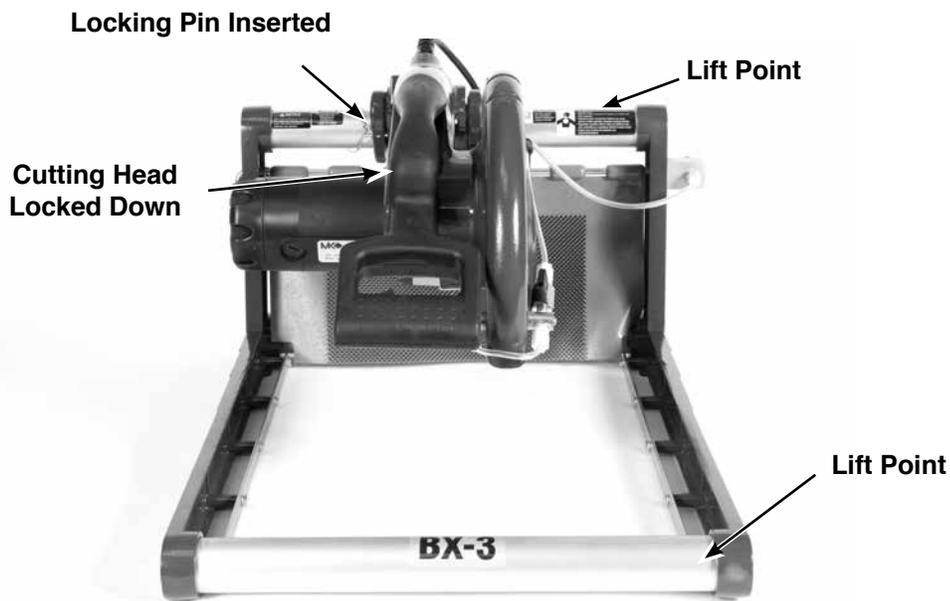


**CAUTION**

Always observe safe lifting practices when lifting the BX-3.

**NOTE:** Lock the Cutting Head in the DOWN position, and remove the Movable Cutting Table when transporting the BX-3.

Due to its lightweight construction, the BX-3 is designed to be carried by the durable aluminum frame. Simply lock the spring assisted cutting head in the DOWN position, grasp the frame by the lower front and upper back cross members, lift and transport the BX-3 to the desired work location.



**ASSEMBLY**

Follow the assembly instructions to prepare your BX-3 for operation.

**MOVABLE CUTTING TABLE INSTALLATION**



(A)  
Place saw in Water Pan  
(if applicable).



(B)  
Position Movable Cutting  
Table. Seat Roller Wheels on  
Guide Rails.



(C)  
Verify correct seating by mov-  
ing table back and forth.

**ADJUSTABLE CUTTING GUIDE INSTALLATION**



(A)  
Loosen Thumbscrew. Position adjustable Cutting Guide on Ruler/Stop.



(B)  
Seat and tighten adjustable Cutting Guide.

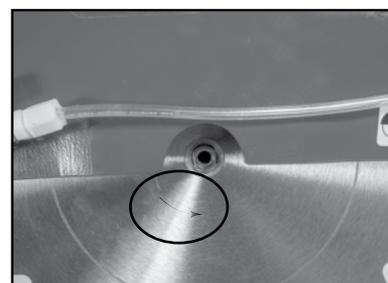
**DIAMOND BLADE INSTALLATION**



(A)  
Place wrenches on retaining screw and Inner Flange.



(B)  
Remove retaining screw and Outer Flange.



(C)  
Install and seat blade- Verify Rotation.



(D)  
Install retaining screw and Outer Flange - tighten.

**⚠ CAUTION**

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.

**SETUP**



**CAUTION**

- Before powering or starting, check for damage that could prevent this equipment from proper operation or performing its intended function. Check for binding and alignment of moving parts. Check for damaged, broken, or missing parts.
- Verify the trigger switch, locking button is in the "RELEASE" position.
- Before connecting the BX-3 to a power supply, be sure the voltage, cycle and phase of the job site power source meet the requirements.

<b>Motor</b>	120V/60Hz
<b>Horsepower</b>	1-3/4Hp
<b>RPM</b>	3500
<b>Phase</b>	single phase

- If using an extension power cord, make sure the length and wire gauge corresponds to the requirements listed in the table on page 12. 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.
- Use an approved Ground Fault Circuit Interrupter (GFCI)
- Do not cover the motor vents as this could lead to motor overheating.

**Portable Generator**

If using a portable generator to provide power, ensure the generator meets the following minimum requirements:

8kw	120/240V	66.7/33.3 Amps	Single Phase
-----	----------	----------------	--------------

**Pre-Start Inspection**

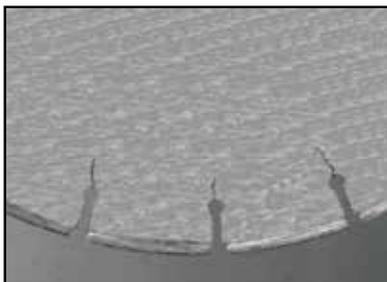
The pre-start inspection should be performed before beginning any job.

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



**CAUTION**

If the Diamond Blade shows signs of fatigue cracking, replace the blade before starting work.



(A)

Inspect blade for damage  
- Verify blade correct for material being cut.



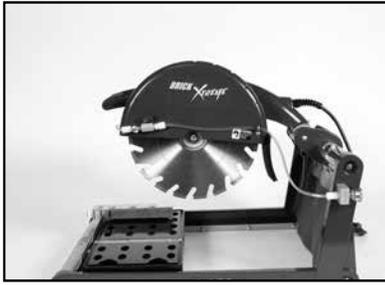
(B)

Inspect Wooden Strip for excessive grooves.



(C)

Movable Cutting Table moves freely.



(A)  
Inspect for damage.



(B)  
Inspect Motor Air Filter  
for cleanliness.



(C)  
Verify Trigger Switch is working.  
Push white button to lock.  
Push trigger switch to unlock.



**CAUTION** If an extension cord is used, first verify it meets the requirements on page 12. Plug the BX-3 into the extension cord; plug the extension cord into a GFCI. Finally, plug the GFCI into the power source in that order.



(A)  
Plug GFCI into BX-3.



(B)  
Plug GFCI into  
Power Source.

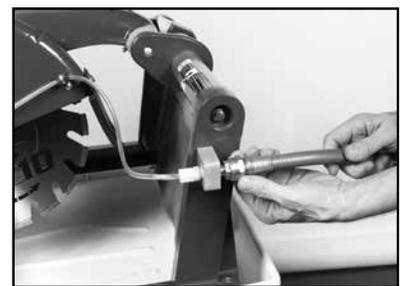
**CUTTING SETUP**



(A)  
Set edge of Cutting Guide to  
desire cut length on Ruler/  
Stop.



(B)  
Position masonry piece. Set  
against Cutting Guide and  
Ruler/Stop.



(C)  
Attach waterhose. Turn Water  
Valve on when preparing to cut.  
(Wet Cutting Saw only)



**CAUTION** DO NOT FORCE the blade to cut, it will do the job better and safer at rate for which it was designed.

**STEP CUTS**

A Step Cut is performed when a series of small cuts of increasing depth are used to complete a single cut. Step Cuts are used for large objects or for hard objects such as Firebrick and Pavers.

- NOTE**
1. Step Cutting is the preferred cutting method for all cuts.
  2. When Cutting hard material Step Cutting should always be used.
  3. Step Cutting will extend the life of the Diamond Blade.



(A)  
Depress Trigger Switch to start cut.



(B)  
Lower Cutting Head 1/4 - 1/2 inch during push stroke.



(C)  
Lower Cutting Head additional 1/4 - 1/2 inch during pull stroke.



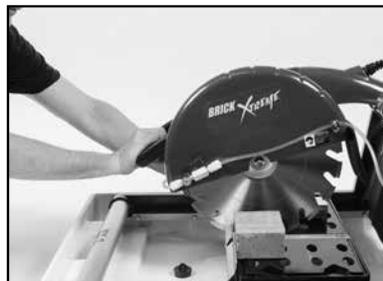
(D)  
Repeat Steps B and C until cut complete.  
Turn OFF saw.

**CHOP CUTTING**

A Chop Cut is performed by cutting completely through an object in one pass.



(A)  
Position work below Cutting Head. Depress Trigger Switch to start.



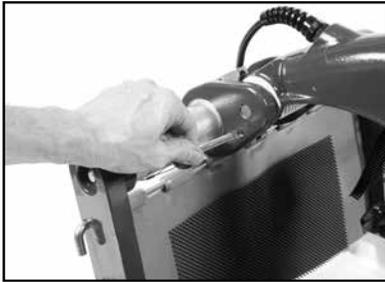
(B)  
Lower Cutting Head to begin cutting.



(C)  
Continue lowering head until cut complete.  
Turn OFF saw.

**CUTTING WITH THE CUTTING HEAD LOCKED DOWN**

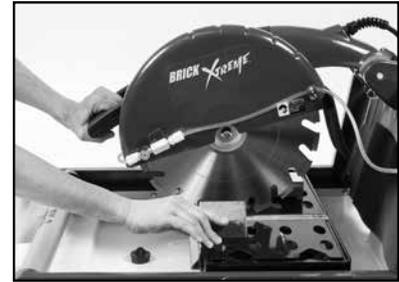
This method is preferred when cutting small objects.



(A)  
Lock Cutting Head in the down position.



(B)  
Position work below Cutting Head.



(C)  
Slowly push piece toward blade to cut.  
Turn OFF saw.

**ANGLE CUTS**

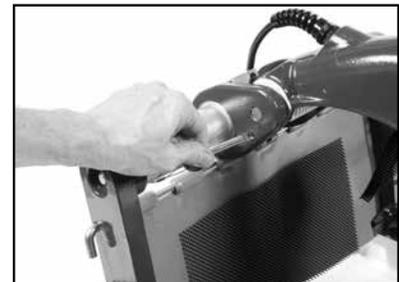
Angle Cuts may be performed using the Step Cut, Chop Cut or the Locked Cutting Head cutting methods. The following is utilizing the Locked Cutting Head method.



(A)  
Reposition adjustable Cutting Guide. Align 45° slots to Ruler/Stop.



(B)  
Set material against adjustable Cutting Guide and Ruler/Stop.



(C)  
Lock Cutting Head in the down position.



(D)  
Slowly push piece toward blade to cut.



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

**CLEANUP**



**WARNING** Always wear eye protection when using compressed air.



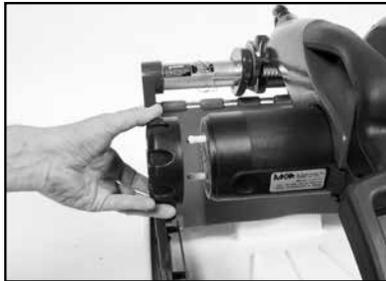
(A)  
Unplug GFCI from BX-3 and power source.



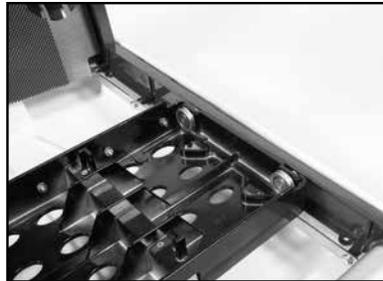
(B)  
Remove Motor Filter Cap from Filter Cap.



(C)  
Clean Filter by tapping on hard surface or using compressed air.



(D)  
Reinstall Filter into Filter Cap and onto motor.



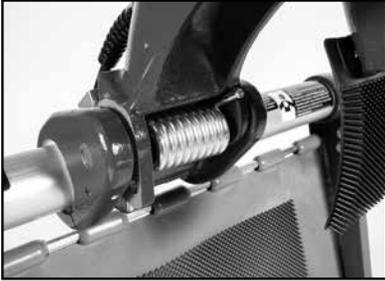
(E)  
Clean the Movable Cutting Table Roller Wheels and Guide Rails.



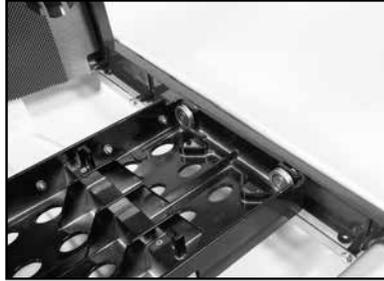
(F)  
Clean remainder of BX-3 including Water Pan.

**GENERAL MAINTENANCE**

The following maintenance should be performed following each use. Use light oil, 3-IN-ONE oil, or other multipurpose spray lubricant.



(A)  
Lubricate Cutting Head  
torsion spring.



(B)  
Lubricate Movable Cutting  
Table Roller Wheels and  
Guide Rails.

**MONTHLY MAINTENANCE**

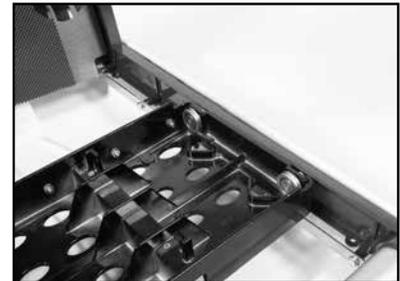
The following should be performed monthly. Items should be lubricated as directed.



(A)  
Clean and lubricate Inner  
Flange and Motor Shaft.



(B)  
Clean and lubricate blade  
retaining screw.



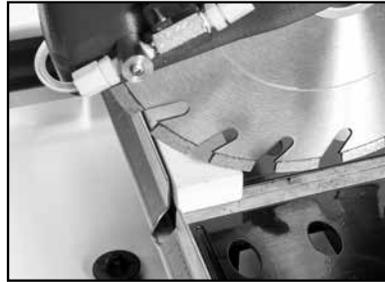
(B)  
Check Roller Wheels and  
Guide Rails for wear.

**BLADE DRESSING**

Like most cutting instruments, a diamond blade performs best when it is dressed. Over time and use, diamonds on the outer edge will become smooth 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 (P/N 152792) and by following the steps below.



(A)  
Set BX-3 for operation.



(B)  
Set adjustable Cutting Guide to cut 1/16-inch strips. Position Dressing Stick and cut until blade is dressed. Turn OFF saw.



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

**DIAMOND BLADE CHANGE-OUT**



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

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



(A)  
Remove retaining screw and Outer Flange.



(B)  
Remove blade from Motor Shaft.



(C)  
Install blade under Blade Guard and onto Motor Shaft.

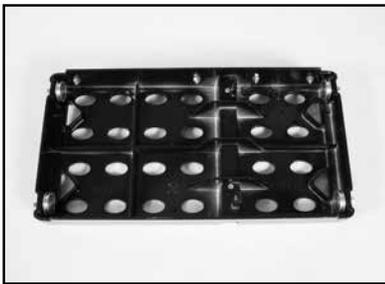


(D)

Install Outer Flange and retaining screw - tighten.

### MOVABLE CUTTING TABLE WHEEL CHANGE OUT

**NOTE:** All four (4) Movable Cutting Table, Roller Wheels should be replaced at the same time (MK Diamond P/N 133090).



(A)

Place Movable Cutting Table on work bench with Roller Wheels up.



(B)

Remove Roller Wheels and clean holes.



(C)

Install wheel/washer assembly into Movable Cutting Table.

**NOTE:** When installing the retaining bolt, DO NOT "Cross Thread" and DO NOT over tighten the nut.

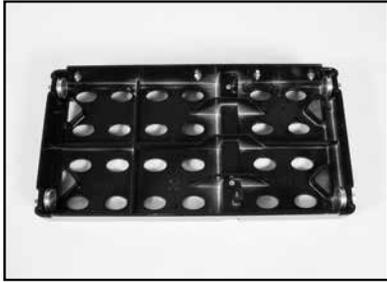


(D)

Install Roller Wheel retaining nut - tighten. Lubricate Roller Wheels.

**PROTECTIVE WOODEN STRIP REPLACEMENT**

The protective wooden strip is to protect the Movable Cutting Table from damage during operation. Over time, the wooden strip will become grooved from use. A grooved wooden strip will not support masonry during cutting, causing the blade to "break through" the piece instead of performing a smooth cut (MK Diamond P/N 156427).



(A)

Place Movable Cutting Table on work bench - wheels up with Roller Wheels up.



(B)

Remove the two Protective Wooden Strip Retaining Screws.



(C)

Replace worn Protective Wooden Strip.



(D)

Place Movable Cutting Table on work bench - wheels up, reinstall Retaining Screws.

**MOTOR BRUSH CHANGE-OUT**



**WARNING**

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



(A)

Remove one Motor Brush Cap. There is one motor brush on the front and one on the back of motor.



(B)

Remove Motor Brush and clean brush housing.



(C)

Align and install new Motor Brush.

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



(D)

Install Motor Brush Cap.



(E)

Install the second motor brush. (Repeat Steps A to D)

**TROUBLESHOOTING**



**WARNING**

Verify the Lockable Switch is unlocked and the saw is disconnected from the power source before performing any troubleshooting procedure.

**MOTOR STOPS TURNING**



(A)  
Verify all plugs fully connected. If connected, go to Step B.



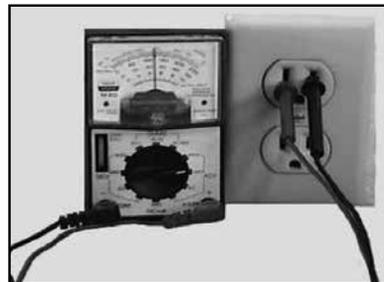
(B)  
Check Ground Fault Circuit Interrupter (GFCI) tripped.



(C)  
Verify Circuit Breaker is 20 Amp or greater.

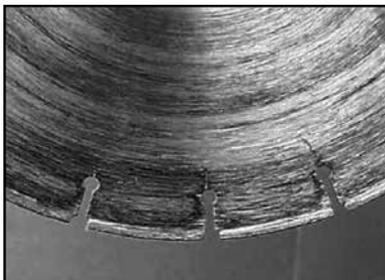


(D)  
Verify Circuit Breaker not tripped.



(E)  
Verify source voltage is 120 volts.

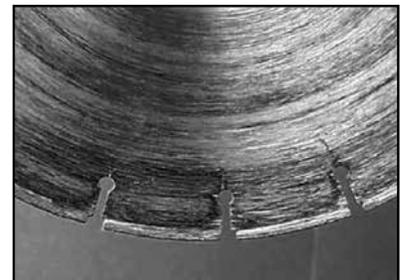
**BLADE WILL NOT CUT PROPERLY**



(A)  
Check for smoothness or "Glazing". Dress blade if needed.



(B)  
Check for proper rotation.



(C)  
Ensure blade core is not bent.



(D)  
Verify blade is correct for material being cut.

**MOVABLE CUTTING TABLE DOES NOT MOVE CORRECTLY**



(A)  
Check Guide Rails clean.



(B)  
Check for Roller Wheel damage.



(C)  
Verify ease and freedom of movement.

**WATER IS NOT SPRAYING**



(A)  
Loosen tube fitting.

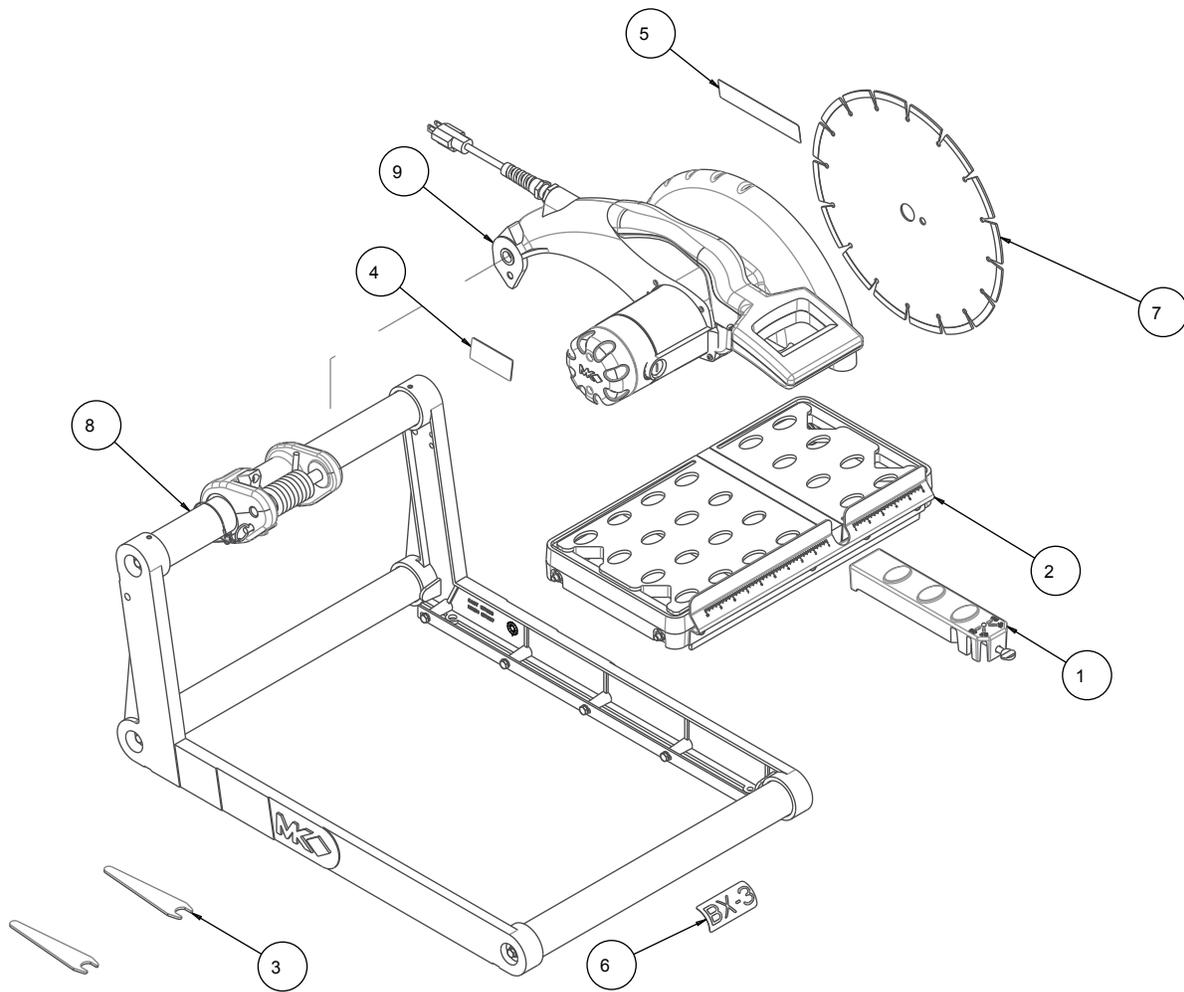


(B)  
Remove screw fitting.



(C)  
Clean nozzle.

**BX-3 SAW - P/N 157721X**

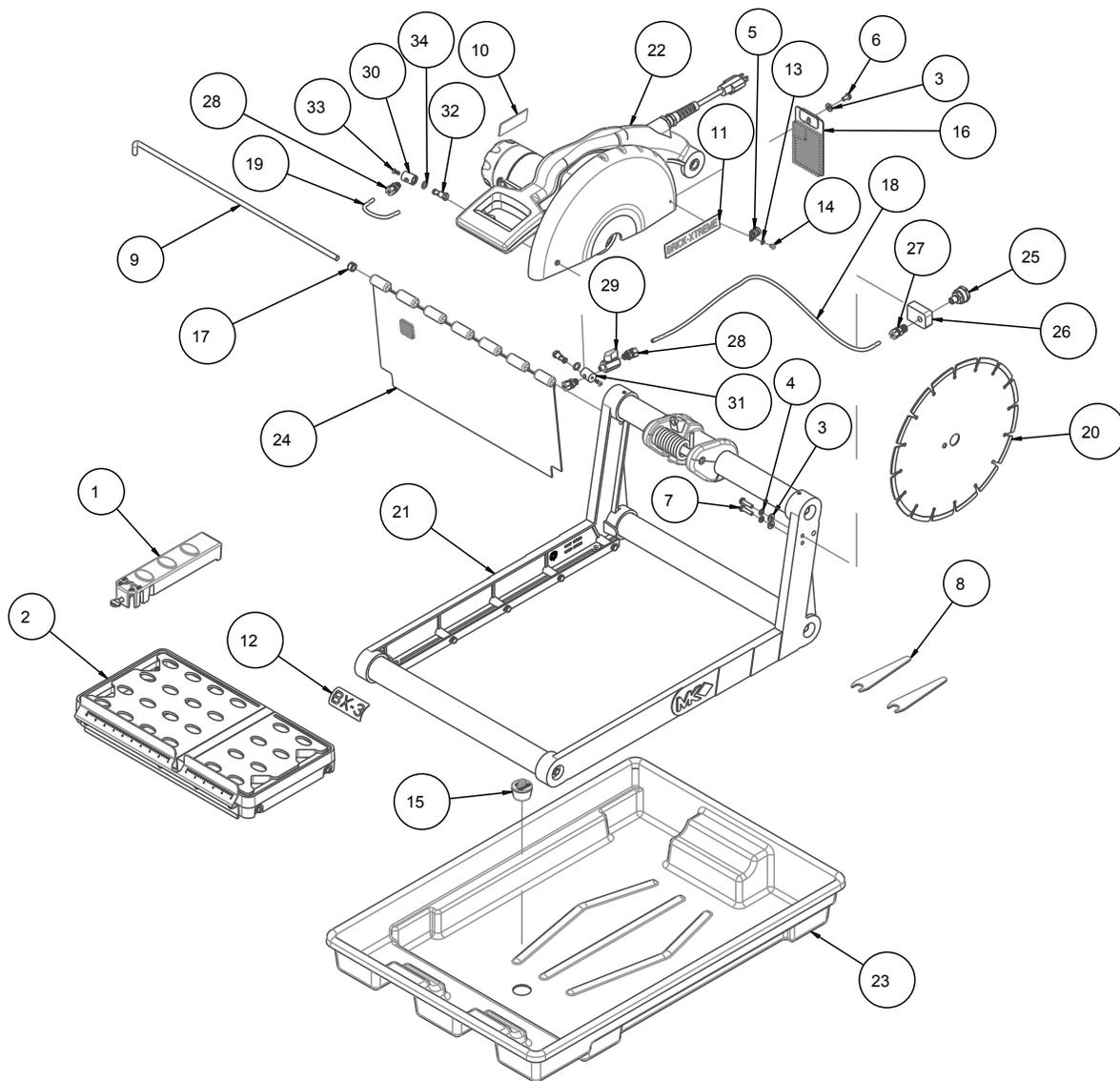


**BX-3 SAW - P/N 157721X**

---

<b>Item</b>	<b>Description</b>	<b>Part #</b>	<b>Qty</b>
1	RIP GUIDE, BRICK/BLOCK SAW	132332-MK	1
2	ASSY, CONVYR CART	133082	1
3	WRENCH, TILSAW, 11/16 OPEN END	153450	1
4	TAG, SERIAL NUMBER, BLANK	157500-rw	1
5	LABEL, BRICK XTREME	157958	1
6	LABEL, BX3	157959	1
7	CONTRACTOR GRADE 14X125X1 10MM	166308	1
8	ASSY, FRAME, BX3	171265	1
9	ASSY, CUTTING HEAD, BX3	171266	1

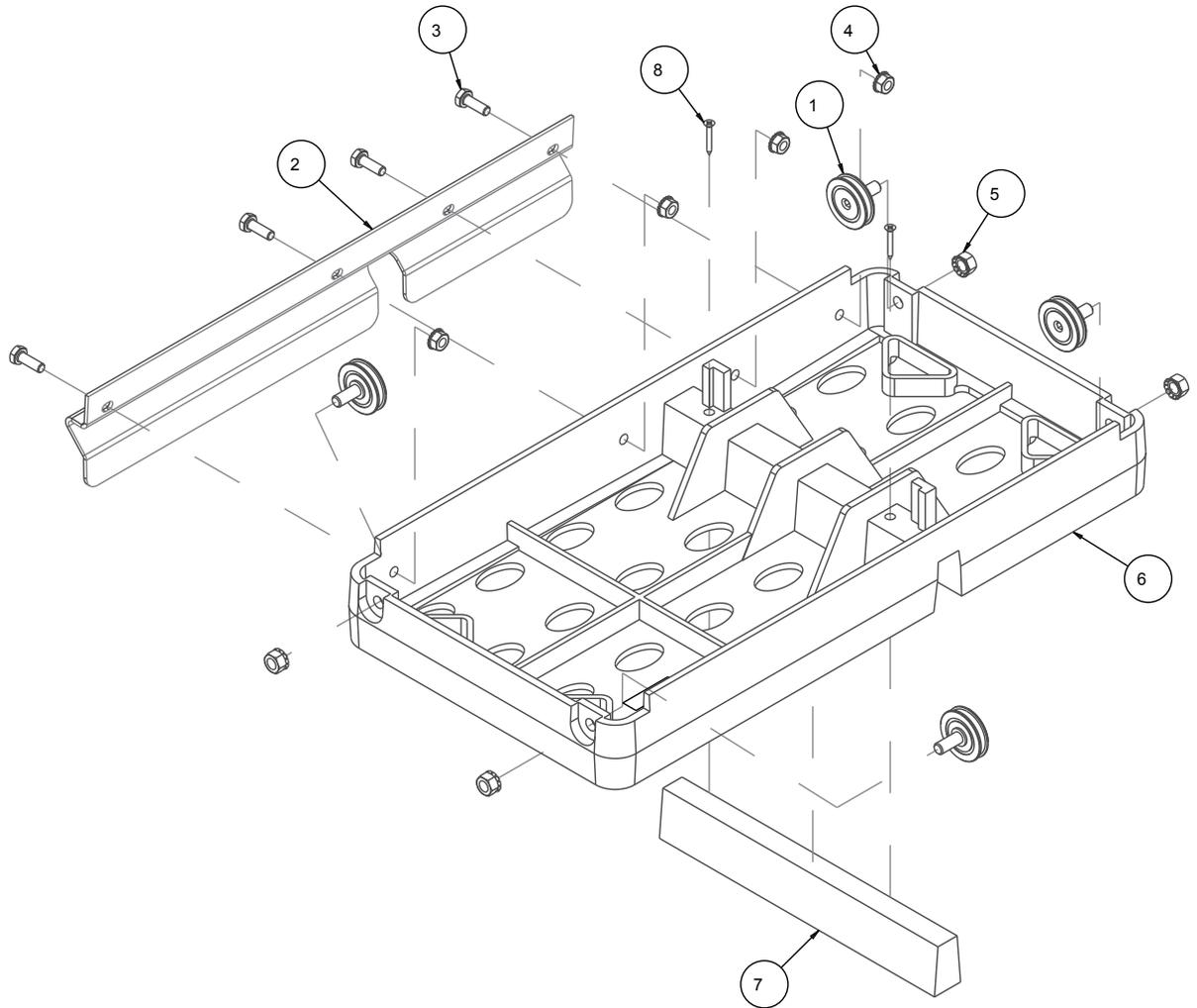
**BX-3 SAW - P/N 157721WX**



**BX-3 SAW - P/N 157721WX**

Item	Description	Part #	Qty
1	RIP GUIDE, BRICK/BLOCK SAW	132332-MK	1
2	ASSY, CONVYR CART	133082	1
3	WASHER, FLAT, SAE, 1/4	151915	3
4	WASHER, LOCK, SPLIT, 1/4	152591	2
5	CLAMP, CUSHION LOOP 3/8	152592	1
6	SCREW, 1/4-20 X 1/2 HEX HEAD	152608	1
7	SCREW, HEX HD, TAP, 1/4-20X1	152676	2
8	WRENCH, TILES AW, 11/16 OPEN END	153450	1
9	ROD, SPLASH CURTIAN	153956	1
10	TAG, SERIAL NUMBER, BLANK	157500-RW	1
11	LABEL, BRICK XTREME	157958	1
12	LABEL, BX3	157959	1
13	WASHER, LOCK, IT, #10	158336	1
14	SCREW, PAN HD PHIL 10-24 X 5/16	159494	1
15	DRAIN PLUG, W/RING	159529	1
16	GUARD, SPLASH	160310	1
17	COLLAR, SHAFT 3/8 X 5/8	159494	1
18	TUBING CLEAR PVC, 1/8 X 1/4 (25")	162808	1
19	TUBING, CLEAR PVC, 1/8 X 1/4 (5")	162505	1
20	CONTRACTOR GRADE 14X125X1 10MM	166308	1
21	ASSY, FRAME, BX3	171265	1
22	ASSY, CUTTING HEAD, BX3-WET	171266-W	1
23	PAN, PLASTIC	172593	1
24	CURTAIN, SPLASH	172604	1
25	FITTING, 1/4 MNPT X GRDN HOSE	172609	1
26	BRACKET, HOSE MOUNTING	172610	1
27	FITTING, 1/4 MNPT X 1/4 TUBE	172611	1
28	FITTING, 1/8 MNPT X 1/4 TUBE	172612	1
29	VALVE, BALL, 1/8 FNPT X 1/8 MNPT	172613	1
30	FITTING, BODY, SINGLE SIDED, WATER JET	172614-1	1
31	FITTING, BODY, 2-SIDED, WATER JET	172614-2	1
32	FITTING, WATER JET	172615	1
33	SCREW, PAN HD, SS, SEAL, #8-32 X 1/2	172616	2
34	O-RING, 11	172629	2

ASSY, CONVYR CART BX-3 - P/N 133082



**ASSY, CONVYR CART BX-3 - P/N 133082**

---

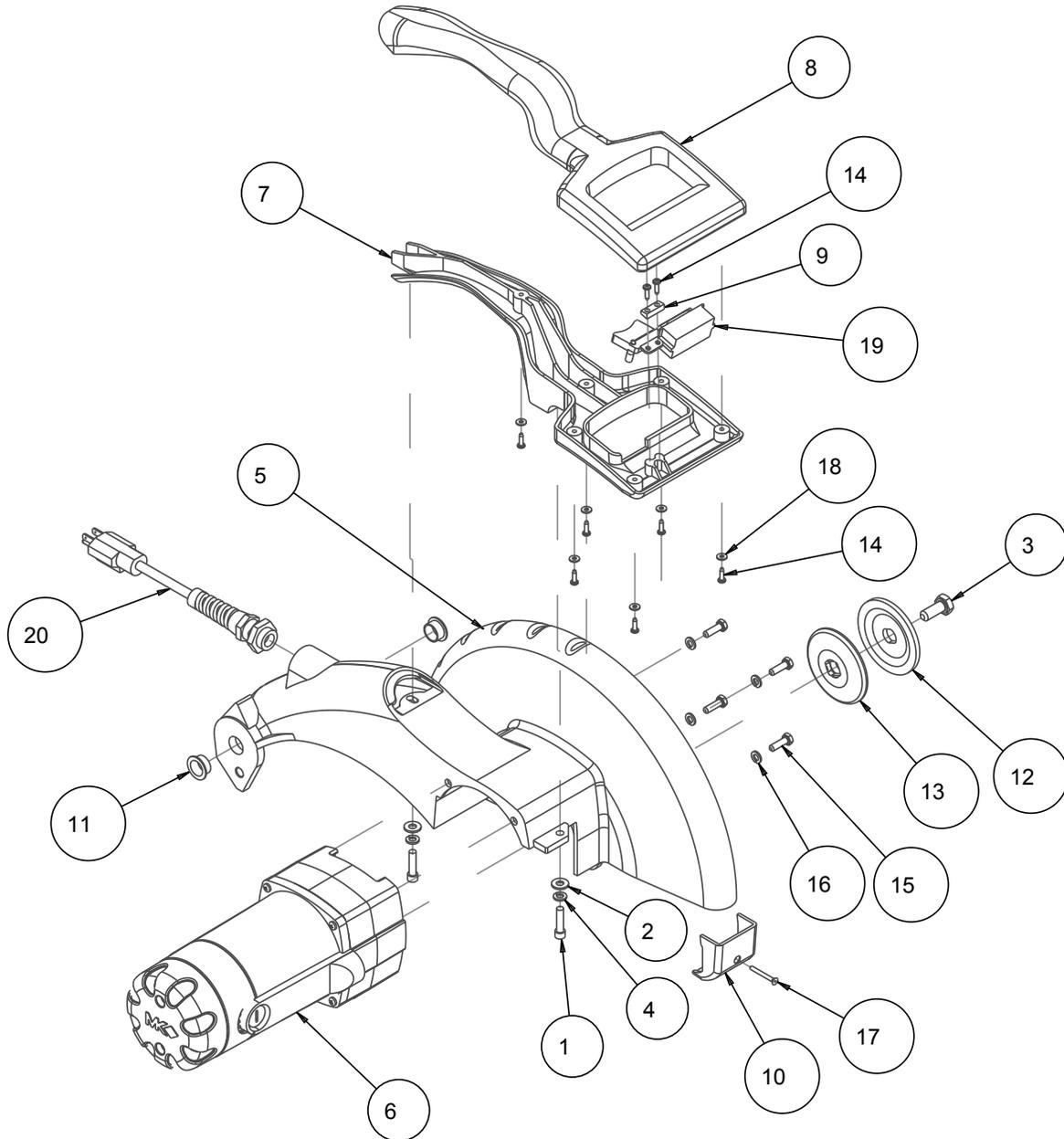
<b>Item</b>	<b>Description</b>	<b>Part #</b>	<b>Qty</b>
1	WHEEL, CONVEYOR CART	133090	4
2	BACKSTOP, CONVEYOR CART	134387	1
3	SCREW, HEX HD, 1/4-20 X3/4	152370	4
4	NUT, HEX, TW, 1/4-20	153941	4
5	NUT, HEX TW, 5/15-18	153942	4
6	TABLE, D.C. COMP	158144	1
7	WOOD STRIP, TABLE INSERT	158283	1
8	SCREW, DRYWL, FLAT, HD #6X1	159906	2



**ASSY, FRAME BX-3 - P/N 171265**

<b>Item</b>	<b>Description</b>	<b>Part #</b>	<b>Qty</b>
1	WASHER, FLAT, SAE, 1/4	151915	6
2	SCREW, HEX HD, 1/4-20X3/4	152370	10
3	SCREW, 1/4-20 X 3/4 SOCKET HEAD CAP	152587	1
4	WASHER, LOCK, SPLIT, 1/4	152591	16
5	SCREW, SOC HD CAP, 1/4-20 X 1	154683	2
6	DC FRAME, RIGHT (COMP)	157367	1
7	DC FRAME, LEFT (COMP)	157369	1
8	RAIL, TABLE GUIDE	157383	2
9	SUPPORT, HORIZ FRAME	157384	3
10	SCREW, SET, 14/-20X 1/4	157528	2
11	CLAMP, PIVOT (COMP)	157593	1
12	PIN, PIVOT	157645	1
13	SPRING, TORSION	157702	1
14	TUBE CONNECTOR 1/4-20	157930	6
15	PIN, DETENT, W/RING PULL	157933	1
16	STUD, GROOVED, #16X1/2	158071	2
17	LANYARD, 3/64X8" GALVNZD STEEL	158072	1
18	BLOCK, STOP	158226	1
19	SCREW, HEX HD 1/4-20 X 2	158282	6

**BX-3 - ASSY, CUTTING HEAD P/N 171266**



SUBSTITUTION TABLE		157599	157801-C
P/N	DESCRIPTION		
171266-W	ASSY, CUT HEAD, BX3-WET	157599-W	SAME

**BX-3 - ASSY, CUTTING HEAD P/N 171266**

<b>Item</b>	<b>Description</b>	<b>Part #</b>	<b>Qty</b>
1	SCREW, SOC HD CAP, 1/4-20 X 1	151049	2
2	WASHER, FLAT, SAE, 1/4	151915	2
3	SCREW, M10X1/5 HEX HD CAP	152272	1
4	WASHER, LOCK, SPLIT, 1/4	152591	2
5	ARM, MOTOR MOUNT (COMP)	157599	1
6	MTR, 115V, 15A, AC	157801-C	1
7	HANDLE, LOWER	157875	1
8	HANDLE, UPPER	157874	1
9	PLATE, SWITCH MOUNTING	157876	1
10	WIRE COVER, BX3	157880	1
11	BUSHING, FLANGE	157932	2
12	FLANGE, OUTER	158105	1
13	FLANGE, Ø 3.0 INNER	158106	1
14	SCREW, PAN HD, M3.5X12MM	158156	8
15	SCREW, HEX HEAD CAP, M6X1X20MM	158158	4
16	WASHER, LOCK, SPLIT, M6	158159	4
17	SCREW, FLAT HD, ALN, #6-32X1-1/4	158160	1
18	WASHER, FLAT, SAE, #6	158231	6
19	ASSY, SWITCH	158323-MK	1
20	HARNESS, WIRE	158329-R	1

**ACCESSORIES**

ITEM	P/N	DESCRIPTION	
1.	132332-MK	Adjustable Cutting Guide*	
2.	133090	Roller Wheel*	
3.	156427	Protective Wooden Strip*	
4.	157729	Motor Air Filter*	
5.	152610	Ground Fault Circuit Interrupter	
6.	157981	BX-3 Stand	
7.	168244	BX-3 Wet Stand	

*\*Included at time of shipping*



## **ORDERING INFORMATION**

---

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

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

**NOTE:** Standard orders are \$50.00 or more when ordering direct from MK Diamond. A \$6.00 charge will be added to orders having a net billing value under \$50.00. A nominal handling fee of \$5.00 may apply to some orders.

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 the RGA number is on the outside of the returned package
- 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.

## **PACKAGING INSTRUCTIONS**

---

- Remove the Cutting Head and Support Angle Assembly
- Dry the saw before shipping
- When packing, include the following: Saw, 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](http://www.mkdiamond.com). For technical questions, call – 800 474-5594.

**CONTACT**

---

Please contact MK Diamond Products, Inc. Customer Service Department with any questions you might have regarding distributors, parts or service.

Telephone: **(800) 421-5830**

Fax: **(310) 539-5158**

E-mail: **Customer\_Service@MKDiamond.com**

Customer Service Hours: **Monday through Friday, 6AM-4PM PST**

**MK Diamond Products, Inc.**

**1315 Storm Parkway**

**Torrance, CA 90501**

**MK DIAMOND PRODUCTS, INC. LIMITED WARRANTY**

---

MK DIAMOND PRODUCTS, INC. will guarantee every machine they build, to be free from defects in material and workmanship for (1) one year from date of purchase. The obligation of MK DIAMOND PRODUCTS, INC. under this warranty is limited to the repair or replacement of any parts which, under normal use, prove to be defective in material or workmanship. The parts involved or the unit in question should be returned to MK DIAMOND PRODUCTS, INC. or to a point designated by us, transportation prepaid.

This warranty does not obligate us to bear the cost of labor or transportation charges in connection with replacement or repair of defective parts. Likewise, it shall NOT apply to any unit which has been subjected to misuse, neglect or accident. This warranty does NOT apply to any machine which has been repaired or altered outside our factory.

This warranty does NOT obligate MK DIAMOND PRODUCTS, INC., with respect to items not of our manufacture, such as engines, motors, hydraulics, etc., which are subject to their own guarantees and warranties.

We shall in no event be liable for consequential damages or contingent liabilities arising out of failure of any equipment or parts to operate properly.

**WARRANTY:** For your (1) one year warranty to be effective, complete the online Product Registration as soon as possible. Visit **[www.mkdiamond.com/registration/](http://www.mkdiamond.com/registration/)**

**© COPYRIGHT 2019, MK DIAMOND PRODUCTS, INC. ALL RIGHTS RESERVED.**

The MK Diamond logo is a registered trademark of MK Diamond Products, Inc. and may not be used, reproduced, or altered without written permission. All other trademarks are the property of their respective owners and used with permission.

MK Diamond may have patents, patent applications, trade marks, copyrights of other intellectual property right covering this product in this document.

This manual MUST accompany the equipment at all times. This manual is considered a permanent part of the equipment and should remain with the unit if resold.

The information and specifications included in this publication were in effect at the time of approval for printing.

**BX-3**  
**OWNER'S MANUAL & OPERATING INSTRUCTION**



MK Diamond Products, Inc.  
1315 Storm Parkway  
Torrance, CA 90501

Toll-Free: (800) 421-5830  
Phone: (310) 539-5221  
Fax: (310) 539-5158  
[www.mkdiamond.com](http://www.mkdiamond.com)