

# MK-1590 RAIL SAW OWNER'S MANUAL & PARTS MANUAL



Part# 166105

Revision 310	12.2021
Manual Part No. 166110	

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

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

Operated correctly, your Track Rail 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 Track Rail Saw safely and correctly. Please take the time to familiarize yourself with the Track Rail Saw by reading and reviewing this manual.

Read and follow all safety, operating and maintenance instructions.

If you should have questions concerning your Track Rail 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/)

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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 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 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. **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**

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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**

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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!

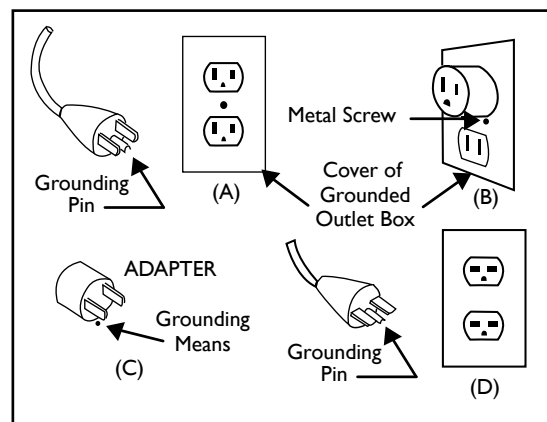


### WARNING

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

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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

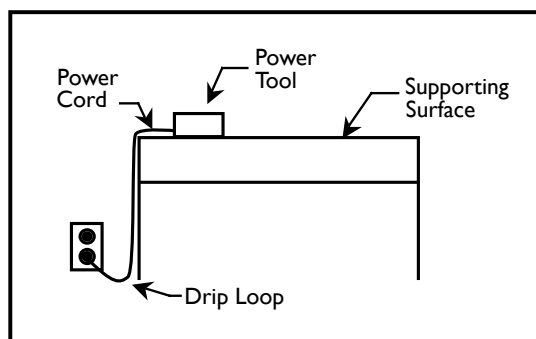
The water pump requires a GFCI. To reduce risk of electrical shock when operating the machine with the pump plugged into the 3-pole receptacle on the motor, connect the machine to a GFCI outlet. See the pump manual and informational tags enclosed separately for all pump information.

**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'	200'
157801	115V 1 Ph	15	14 ga	10 ga	8 ga	4 ga

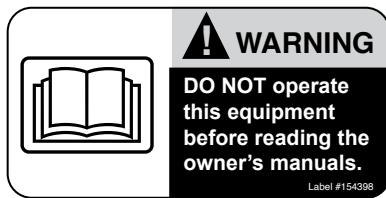
**OPERATION & SAFETY DECALS**

The MK Diamond Track Rail Saw is equipped with a number of safety decals. These decals are provided for operator safety and maintenance information. The illustration below also shows the location of these decals. Should any of these operation or safety decals become unreadable, replacements can be obtained by calling **(800) 262-1575**.



Part # 164202

**A**



Part # 154398

**B**



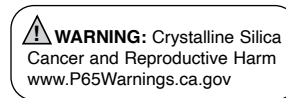
Part # 155587

**C**



Part # 170480

**D**



Part # 172640

**E**

Decal/Label	Location	Description
A	Motor - Front	Warning - Dust Control
B	Motor - Front	Warning - Read and Follow Operating Instructions
C	Motor - Top	Caution - Do Not Operate without Guards
D	Motor - Side	QR Codes for Manuals and Safety
E	Motor - Back	Warning - Silica Prop 65

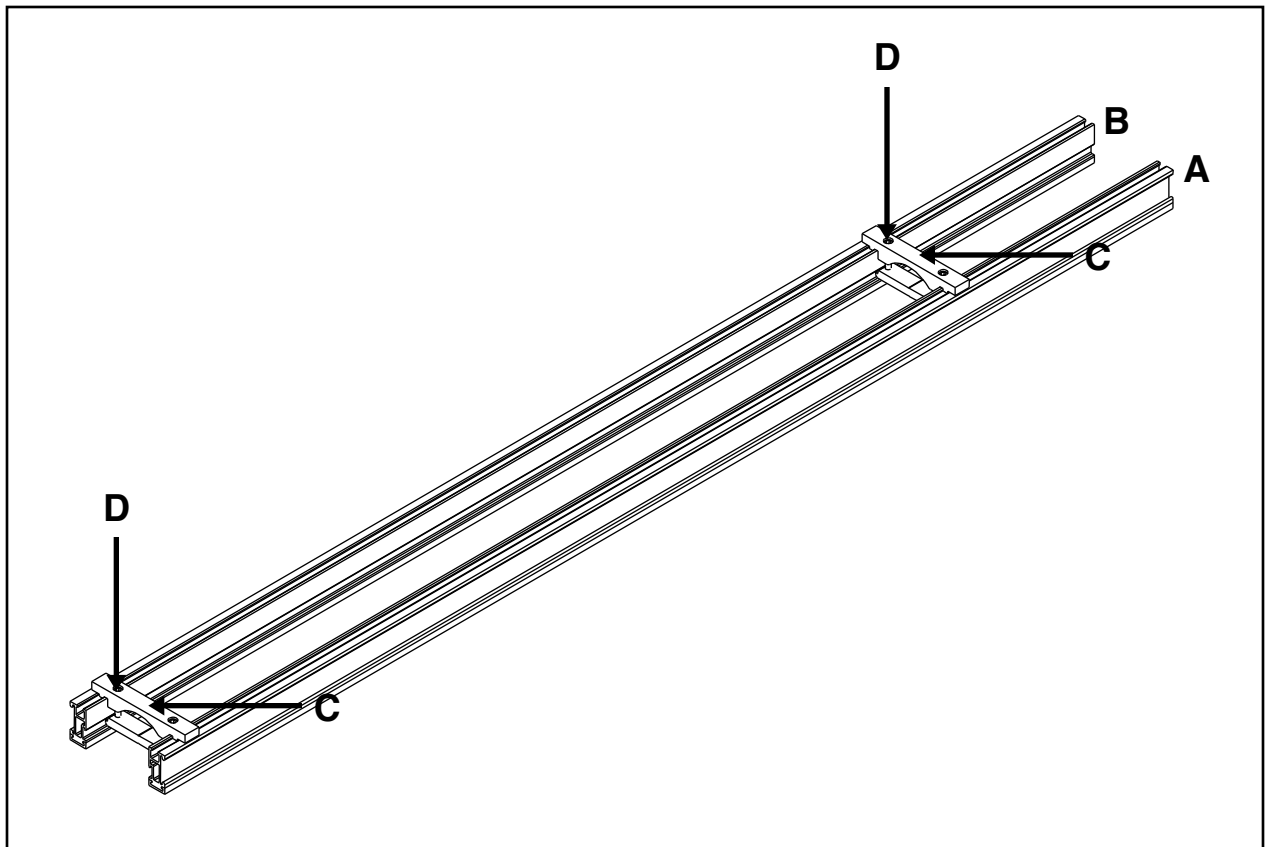
<b>Track Rail Saw Specifications</b>	
<b>Model</b>	166105
<b>Motor</b>	115V 50/60 Hz
<b>Amps</b>	15
<b>Horsepower</b>	1-3/4 HP
<b>Blade RPM</b>	3,500
<b>Blade Capacity</b>	12" (254 mm)
<b>Arbor Size</b>	1" (25.4 mm)
<b>Standard Length of Cut</b>	130" (3,202mm)
<b>Maximum Depth of Cut</b>	2-7/8" (73mm)
<b>Depth of Cut at 45°</b>	2-1/4 (57mm)
<b>Weight</b>	95 lbs. (43kgs.)
<b>Dimensions (LxWxH) - inches</b>	144" x 16" x 13"
<b>Dimensions (LxWxH) - millimeters</b>	3,658 x 406 x 330

- Adjustable height plunge-cutting head
- Lightweight precision extruded aluminum rails provide accurate and even tracking during all cutting operations
- Rails have replaceable slip-on pads to protect material surface from scratches
- Precision, maintenance-free bearings provide smooth and reliable tracking of the cutting head
- Replaceable dust filter
- Valve controlled water feed
- 72" 115V standard U-ground electrical cord
- Saw comes complete with two sets of 72" track, track connector plate, 12" blade capacity cutting head, two hold-down clamps and standard garden hose water connector
- Additional rails for extending cutting capacity sold separately

## Rail Assembly

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1. Lay Rails (A & B) on a flat and leveled surface.
2. Align ends of Rails.
3. Slide Parallel Rail Support Brackets (C) from both ends of rail.
4. Tighten screws until Brackets hold Rails firmly in place (D).
5. Repeat Step 1 through 4 if a length of more than 6 feet is needed.

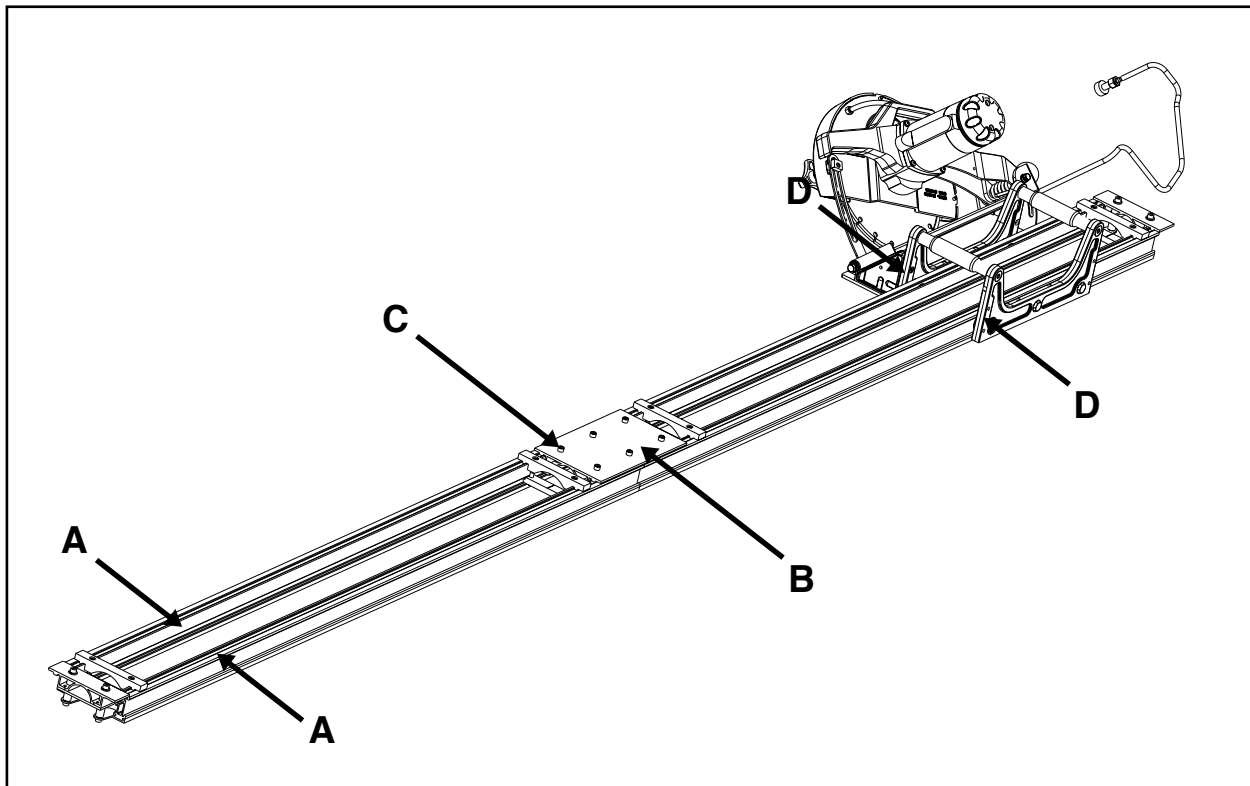


## Rail Assembly Connector

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The rail connector assembly is required to hold two Rail Assemblies together.

1. Slide the Rail Assembly (A) into the Connector Plate Assembly (B).
2. Tighten screws (C) lightly until connector plate is firmly seated.
3. Slide the other half of the Rail Assembly (D) into the Rail Connector Assembly (B).
4. Fully tighten screws.





## Cutting Head Assembly

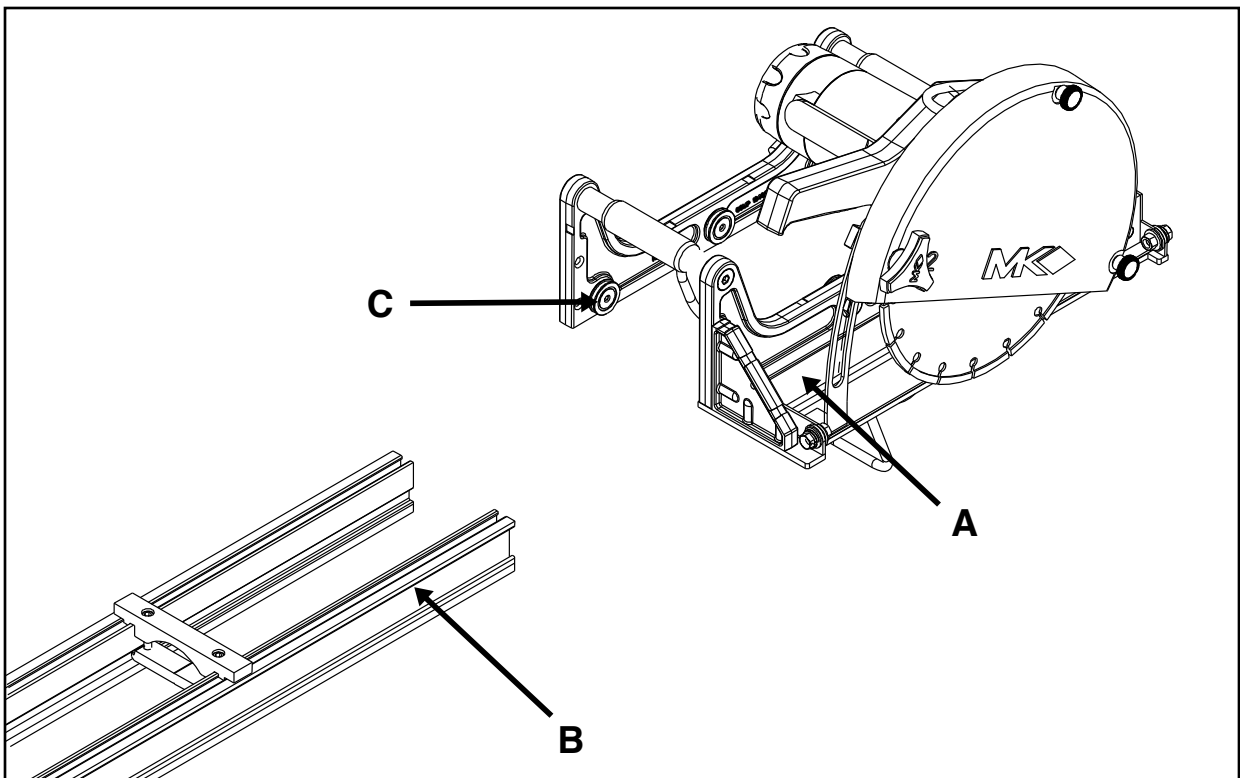
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The Cutting Head Assembly is pre-assembled and aligned at the factory.

### **WARNING**

Ensure that the power is disconnected before installing the Cutting Head Assembly to Rails.

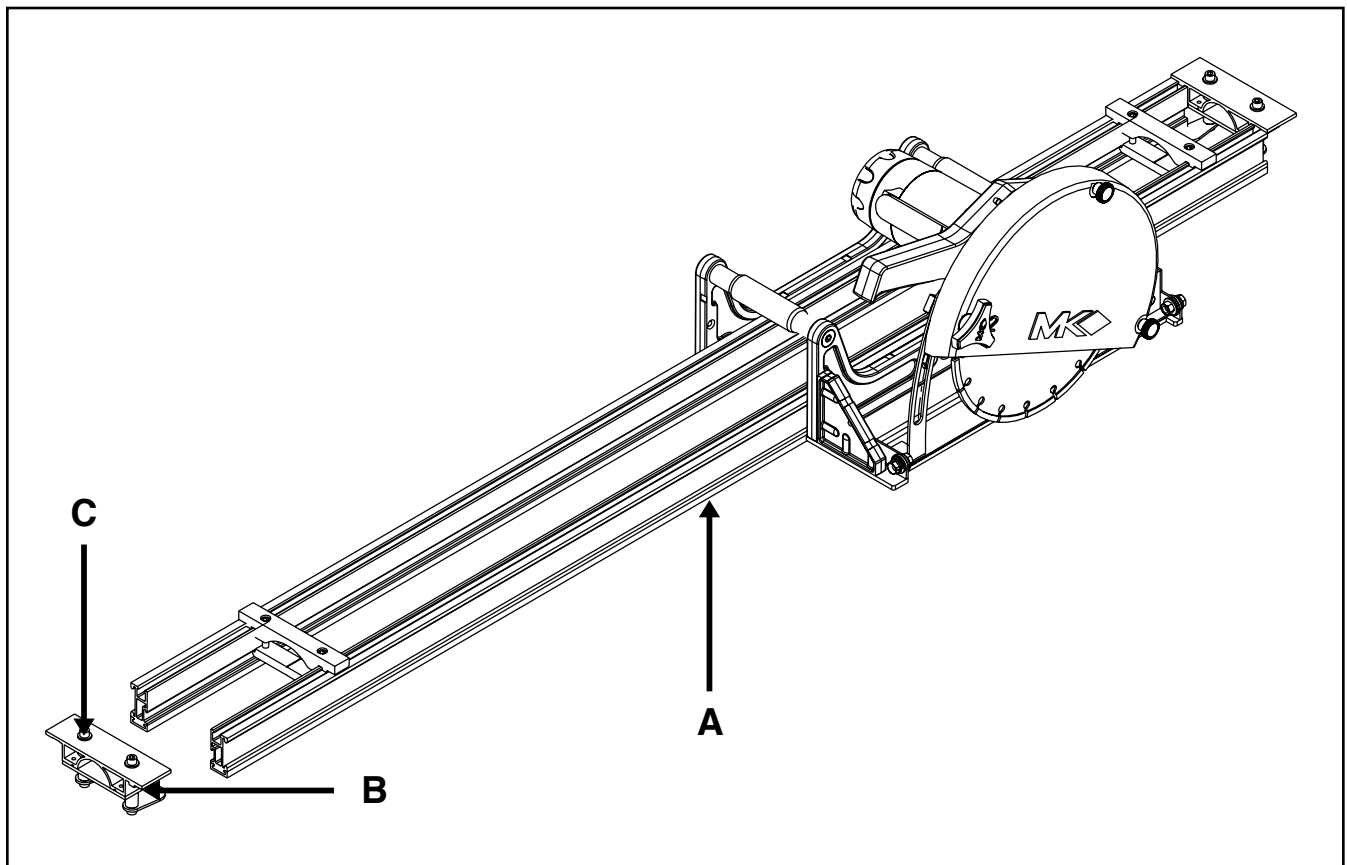
1. Place the Rail Assembly (B) on slab.
2. Slide the Cutting Head Assembly (A) until the Carrier Wheels (C) are over Rail Assembly (B).
3. Move the Cutting Head Assembly along the Rail Assembly with a sliding motion.



**Material Clamps & Alignment****⚠ WARNING**

Ensure that the electrical cord is not connected before assembling and aligning material clamps.

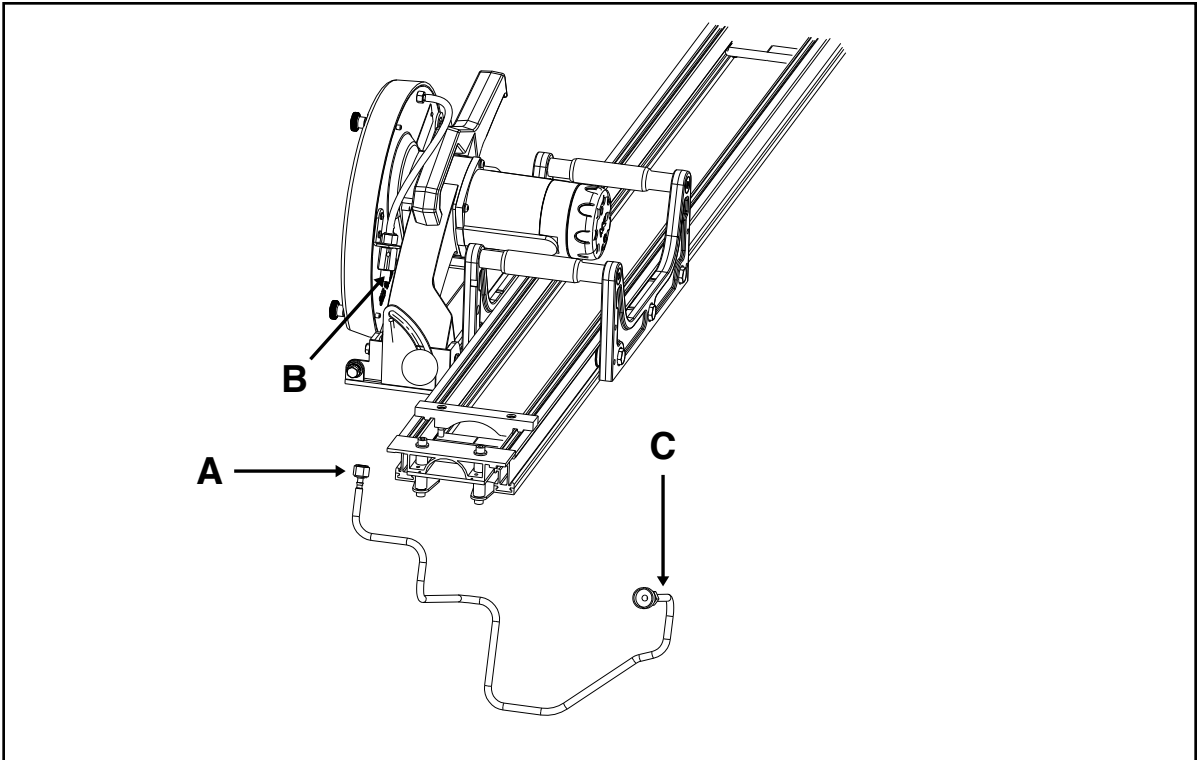
1. Position Saw Assembly (A) on the slab. The inner side of the blade is approximately 6.25 inches from the top edge of the aluminum rail.
2. Slide the Material Clamps from both ends of the Rail Assembly until the Clamp Foot (B) is underneath the slab.
3. Tighten screws (C) until the Saw Assembly is secured to the slab without any side movement.
4. To realign the Rail Assembly, slightly loosen the Material Clamps. Realign the Rail Assembly by tapping the ends of the Rail Assembly.
5. Repeat Steps 3 and 4 if realignment is necessary.



### Hose Set-Up

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1. Connect Plastic Fitting (A) to Nipple (B).
2. Connect Hose Fitting (C) to Water Hose.



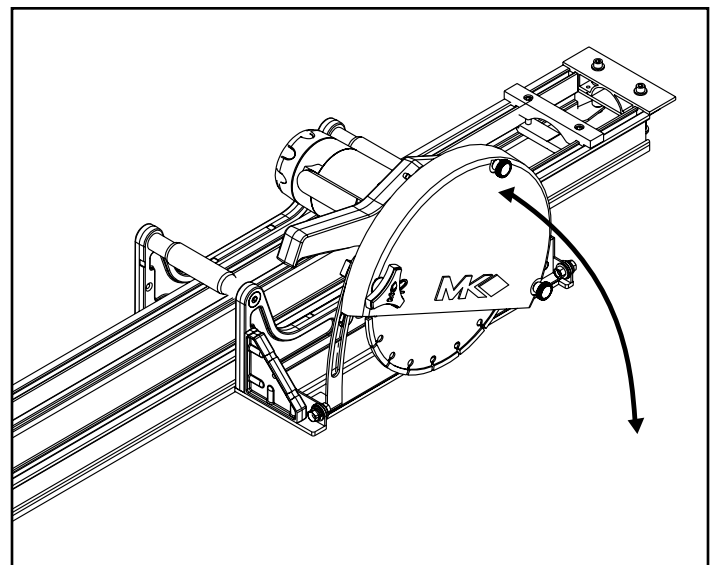
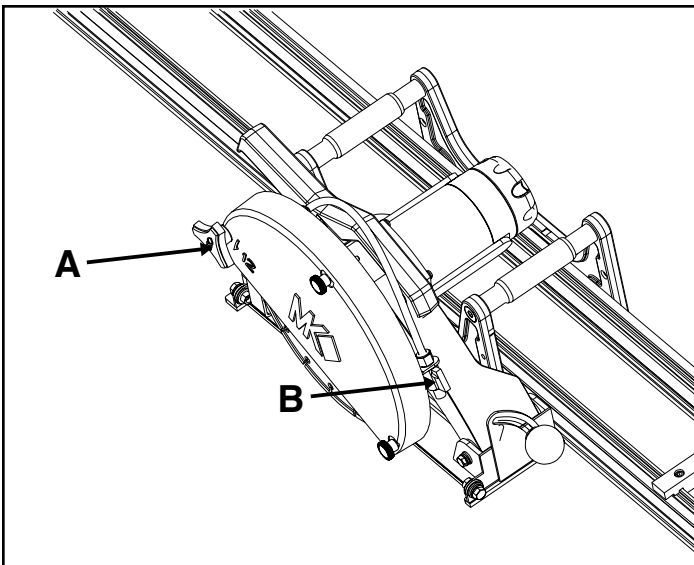
 **CAUTION**

Always use a Grounded Fault Circuit Interrupter (GFCI) with this saw.

**Plunge Cutting for a 90° Cut**

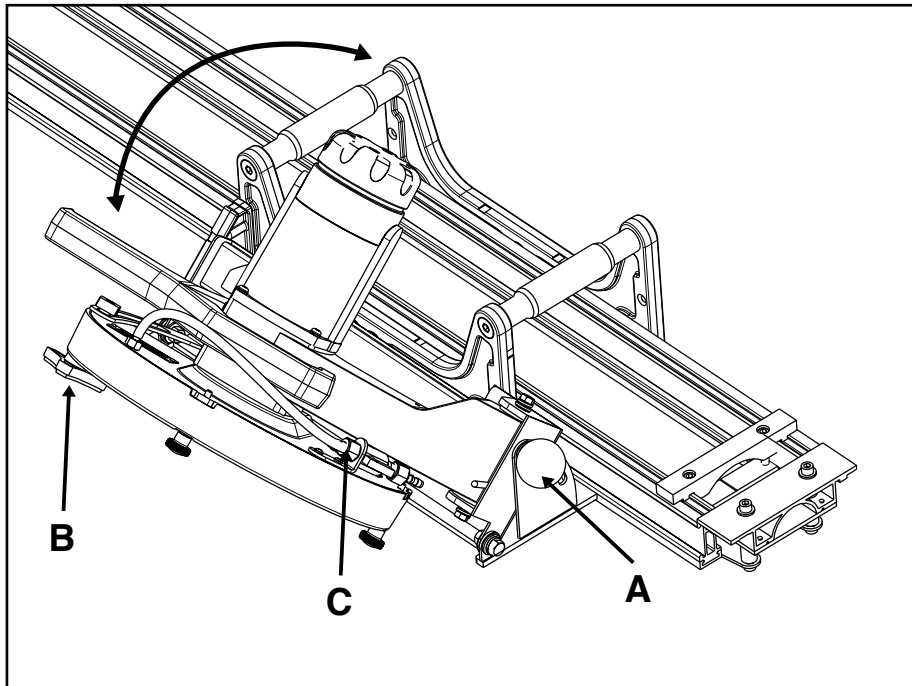
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1. Loosen the Tri-Knob (A). Raise the blade to the highest position and move the Saw Assembly to the beginning of the cut.
2. Adjust the Valve (B) for the desired amount of water flow.
3. Depress motor switch and lower the blade slowly into the material.
4. Tighten the Tri-Knob (A) once the blade cuts through the material. Follow the direction of the cut.



### Plunge Cutting for a Miter Cut

1. Loosen the Round Knob (A) and adjust the blade to the desired angle (0-45 degrees). Tighten the Round Knob. Recheck the set angle along the entire rail system.
2. Loosen the Tri-Knob (B). Raise the blade to the highest position and move the Saw Assembly to the beginning of the cut.
3. Adjust the Valve (C) for the desired amount of water flow.
4. Depress motor switch and lower the blade slowly into the material.
5. Tighten the Tri-Knob (B) once the blade cuts through the material. Follow the direction of the cut.

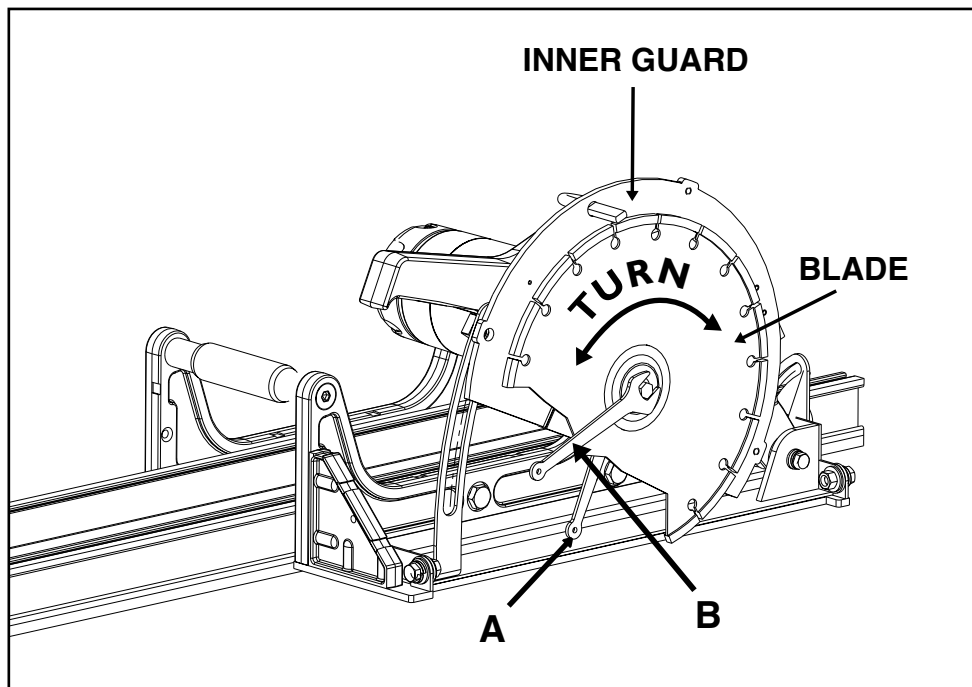


**! WARNING**

Always disconnect the unit from the power supply.

**Blade Replacement**

1. Remove knobs on outer blade guard.
2. Remove the Blade Guard.
3. Use the open wrenches provided with this unit. Place wrench (A) over the flats on blade shaft (located on the inner side of the blade). Hold the wrench stationary. Place wrench (B) on the Hex Screw at the end of the blade shaft. Turn wrench (B) counter-clockwise to remove the screw.
4. Replace the blade and ensure that the blade is oriented with the arrow in a counter clockwise position. Tighten the screw clockwise to secure the new blade.
5. Rotate the blade by hand to check it for tightness.

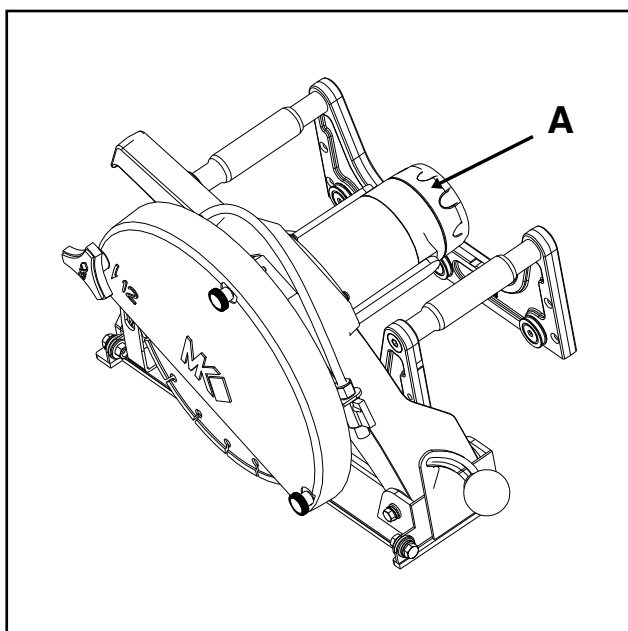
**! CAUTION**

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.

## Filter Replacement

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1. Pull Filter Cap (A) off.
2. Replace Filter.
3. Snap Filter Cap back on.



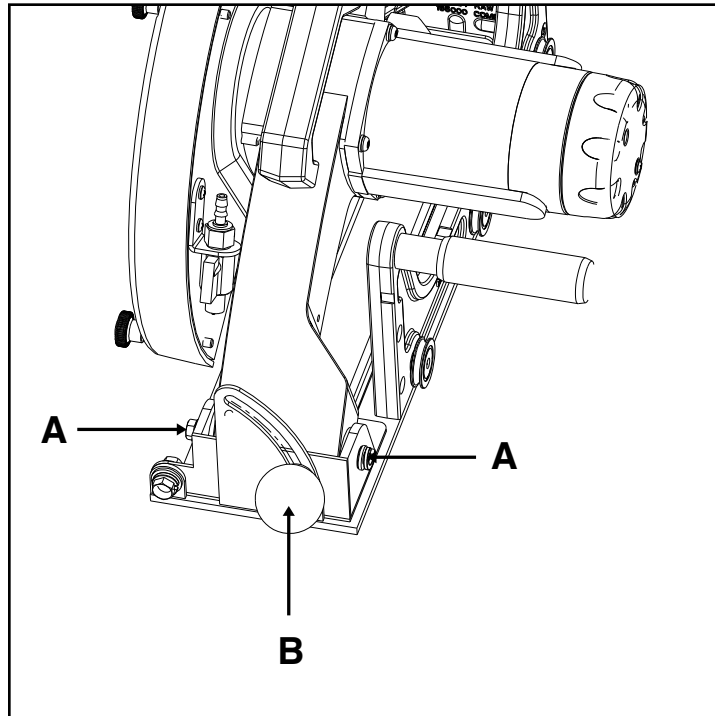
 **WARNING**

Disconnect the unit from the power supply.

**Roller Wheel Replacement**

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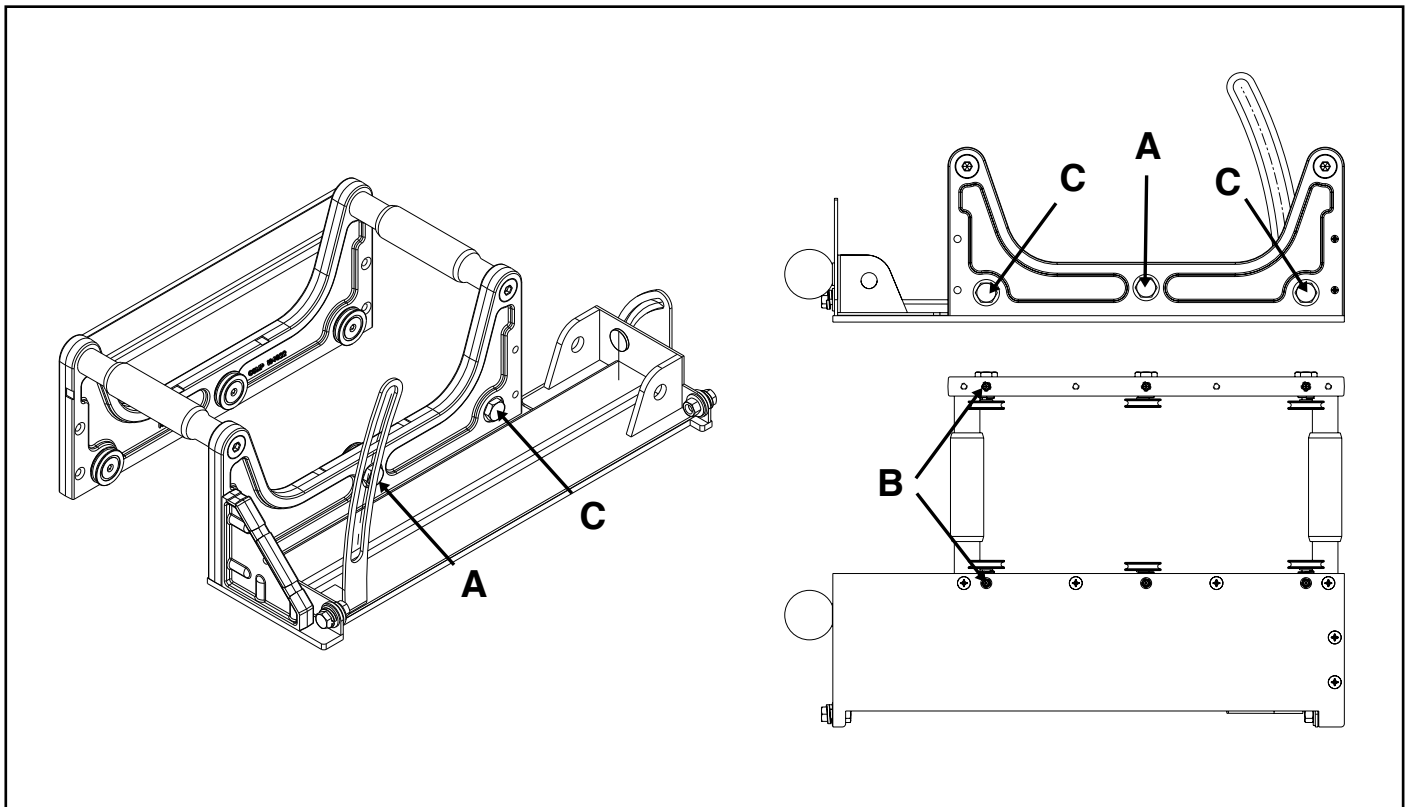
1. Remove the Hex Screws (A) and Round Knob (B).
2. Remove Motor and Blade Guard Assembly from the Carrier Assembly.
3. Remove Carrier Assembly from the Rail Assembly. Place the Carrier Assembly on a flat and level surface.





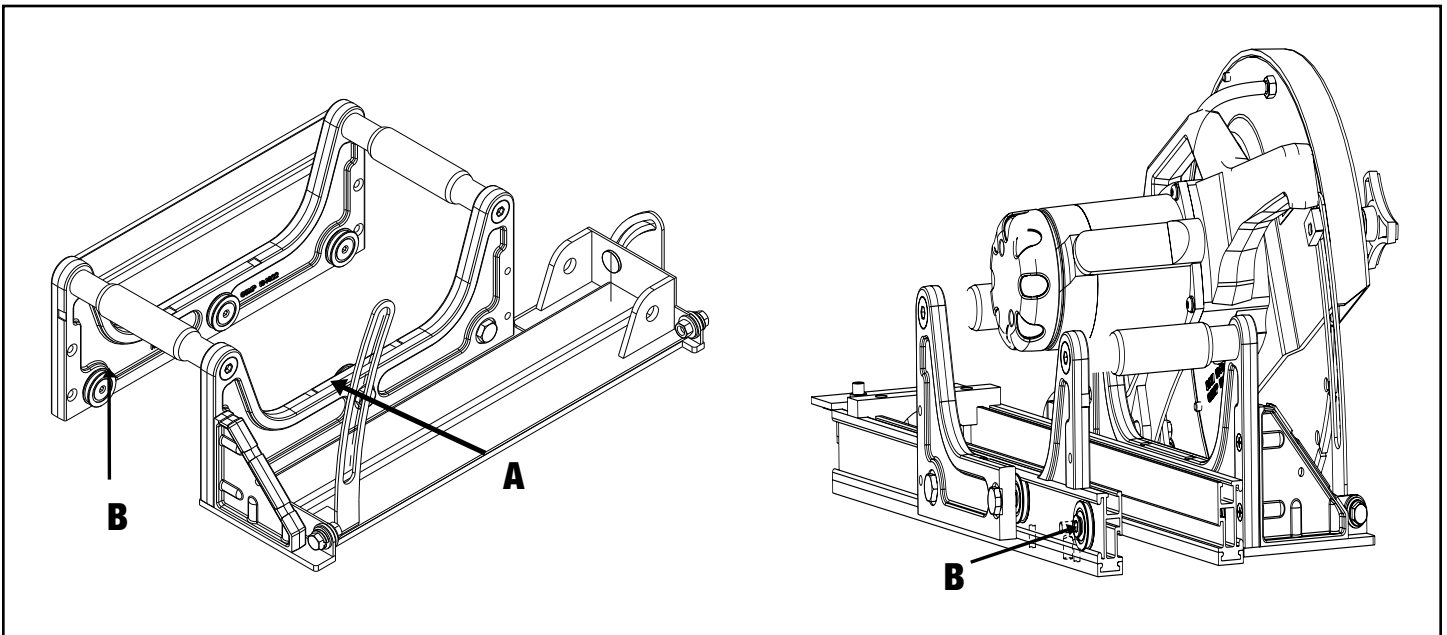
## Roller Wheel Replacement

1. Unscrew the wheel(s) with a 3/16 hex key. Ensure that the eccentric bushings (A) and straight bushings (C), located in the middle of each carrier casting, do not move.
2. Install new wheels by screwing into bushings.
3. Slide the Carrier Assembly back in the rail to check for wheel alignment.
4. If carrier assembly does not line up with rails, loosen set screw(s) (B) located on the bottom of carrier legs.
5. Align straight bushing(s) (C) so groove on wheel is centered on rail rib. Hold bushing in place while tightening set screw. **DO NOT FULLY TIGHTEN AT THIS TIME.**



**Roller Wheel Replacement**

1. Position eccentric bushing(s) (A) until the groove on the wheel lines up with the center of the rail rib. Turn the eccentric bushing(s) (A) until the radial groove of the wheel touches lightly with the top of the rail rib. Hold the eccentric bushing(s) stationary while tightening down set screw(s) (B) lightly. Groove aligns with center of upper rail rib. Turn eccentric bushing until wheel groove lightly contacts upper rail rib. Hold eccentric bushing in place while tightening set screws. **DO NOT FULLY TIGHTEN AT THE TIME.**
2. Repeat Steps 7 through 10, if necessary.
3. Tighten all set screws (B).
4. Reinstall the motor and blade guard assembly.
5. Recheck for wheel alignment and smoothness of travel.

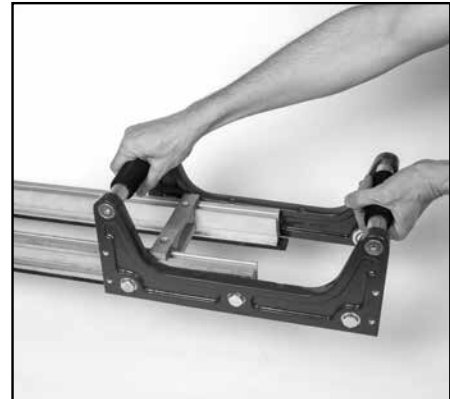


Remove Motor and Blade Guard Assembly from the Carrier Assembly.



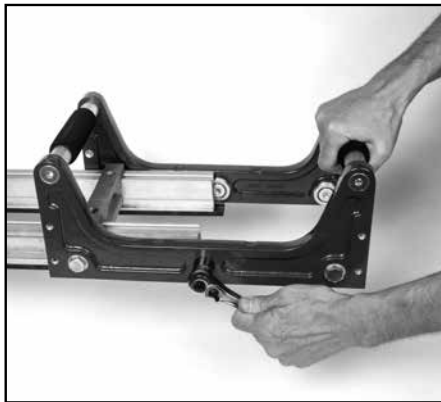
(A)

Unlock set screws on each wheel.



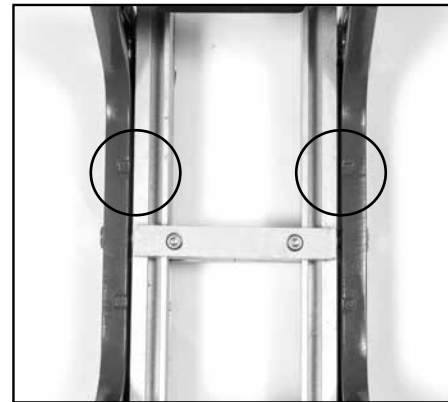
(B)

Place Carrier Assembly on the rail.



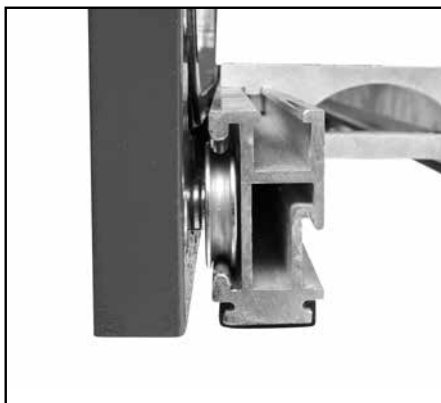
(C)

If Carrier Assembly is difficult to put on rails, loosen the center wheels with a 3/4" socket.



(D)

Align the Carriage Assembly to be evenly spaced with rails, from side to side.



(E)

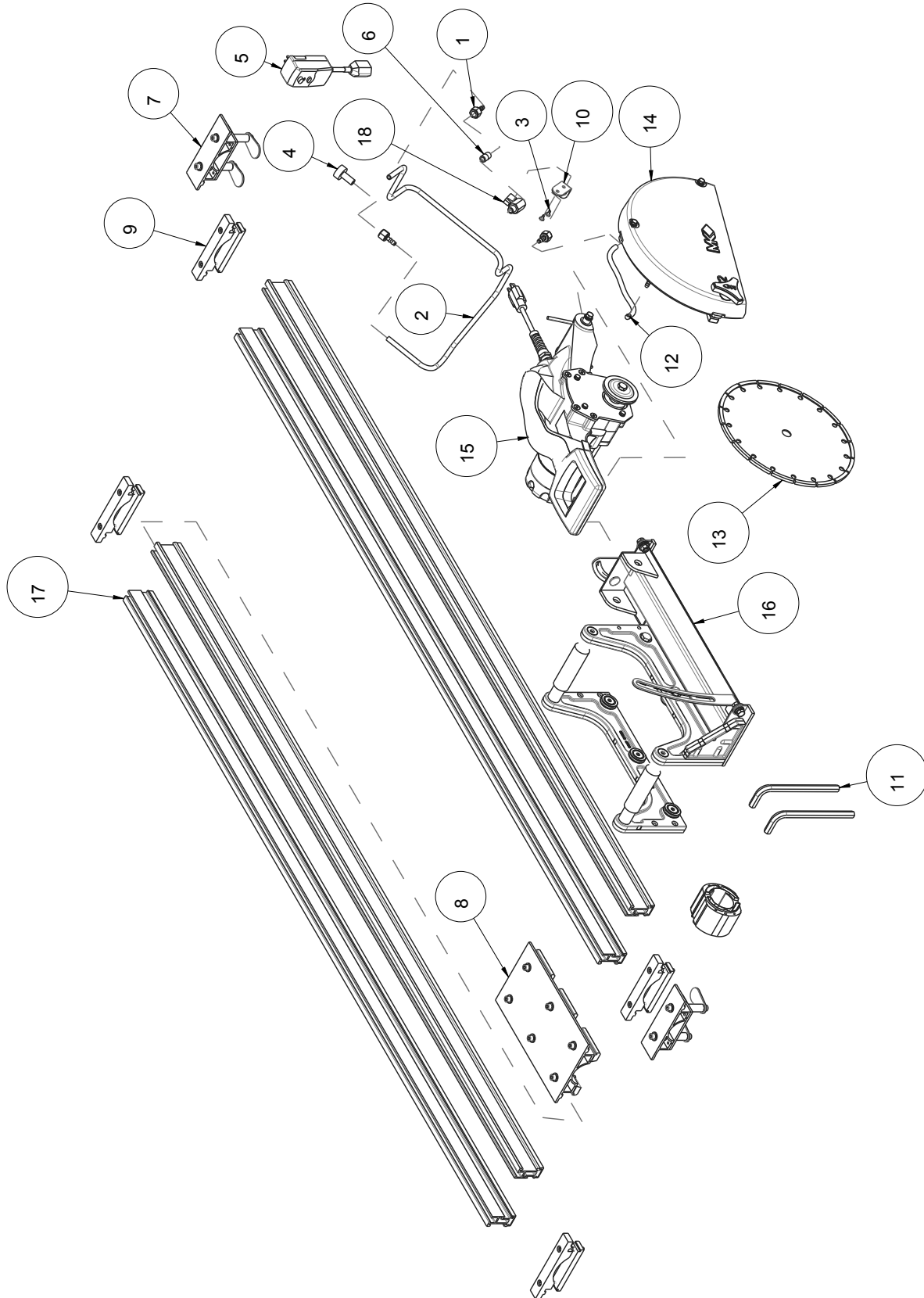
Ensure wheels are aligned in rail properly, so groove on wheel is centered on rail rib. Tighten the four corner set screws.



(F)

Using a socket wrench turn adjustments of center wheel so the wheel touches the top of the rail to restrict movement slightly. Tighten center set screws. Repeat on other side.

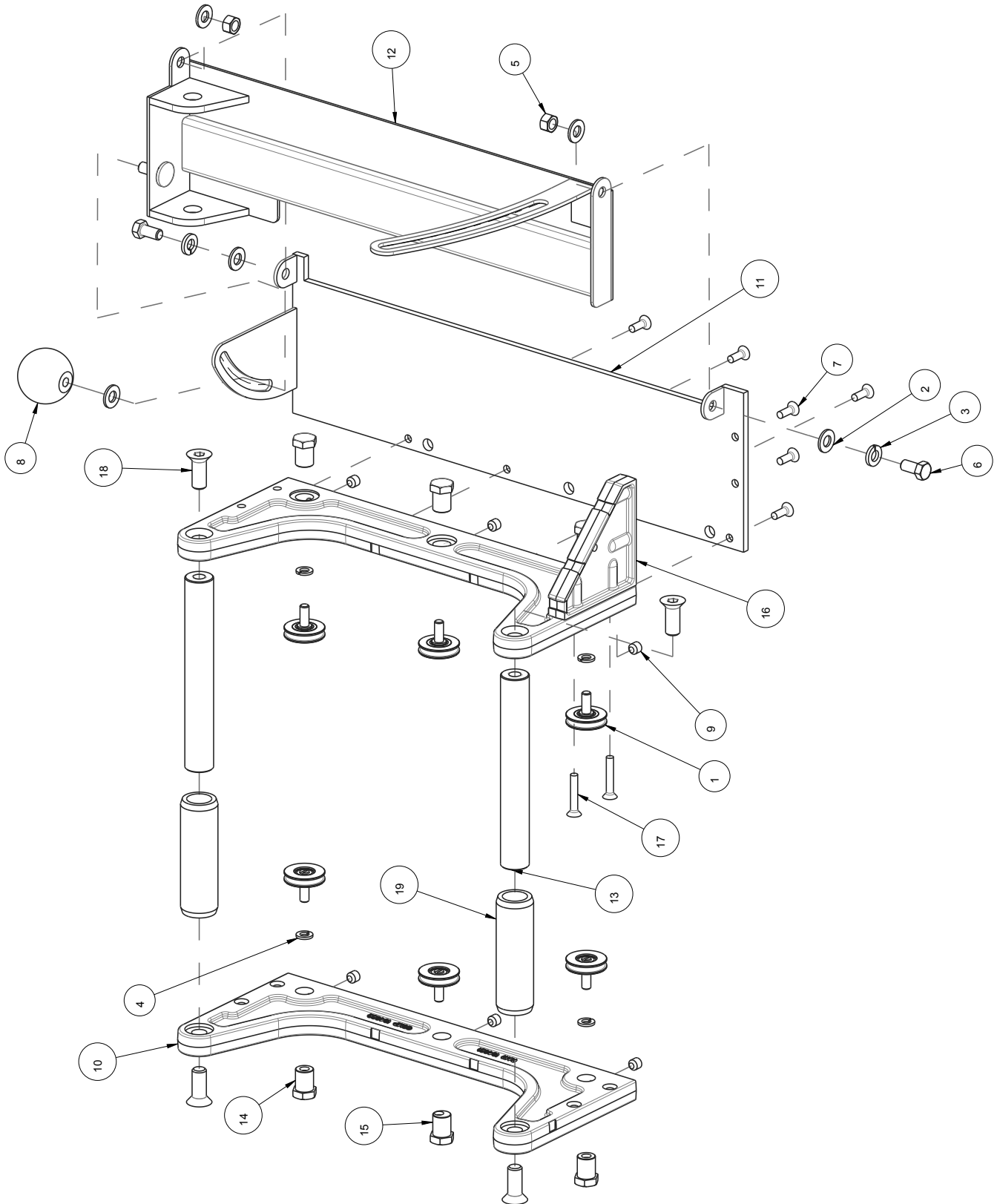
FINAL ASSEMBLY P/N 166105



## FINAL ASSEMBLY P/N 166105

ITEM NO.	DESCRIPTION	PART #	QTY.
1	ADAPTER, PUMP TPF-22 1/4X1/4	128397	3
2	HOSE, VINYL, 1/4X3/8 TSAW	132951	1
3	SCREW,PAN HD SELF TP10-24X3/8	151262	2
4	FITTING, HOSE, 1/4 MNPT	152525	1
5	GFCI, 120V, 15A	152610	1
6	NIPPLE, 1/4 NPT X CLOSE,BRASS	159905	1
7	CLAMP, RAIL SAW MATERIAL	165113	2
8	ASSY, RAIL CONNECTOR PLATE	165268	1
9	ASSY, RAIL SUPPORT BRACKET	165269	4
10	BRACKET, WATER VAVLE	165478	1
11	WRENCH, 1/4 HEX L-KEY	165482	2
12	HOSE, 3/8x1/4x10"	165506	1
13	BLADE, 12"	165921	1
14	ASSY, BLADE GUARD 1590	166107	1
15	ASSY, CUTTING HEAD, 1590	166113	1
16	ASSY, MAIN CARRIER, 1590	166115	1
17	ASSY, RAIL	166127	2
18	VALVE, BALL 1/4"M X 1/4"F	231248	1

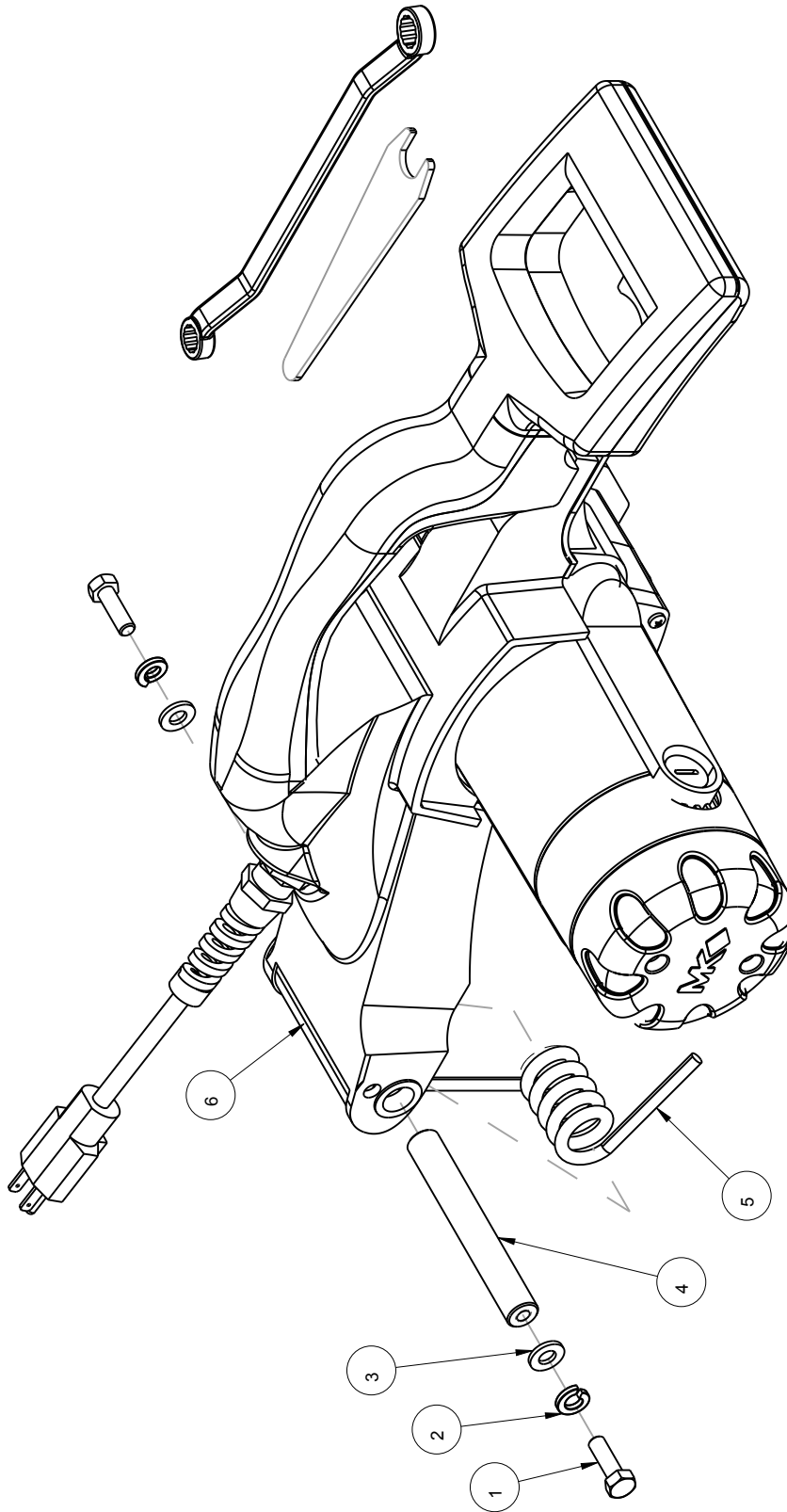
MAIN CARRIER ASSEMBLY P/N 166115



## MAIN CARRIER ASSEMBLY P/N 166115

ITEM NO.	DESCRIPTION	PART #O.	QTY.
1	WHEEL, CARRIER, MK-1590	133090-1590	6
2	WASHER, FLAT, SAE, 3/8	150923	5
3	WASHER, LOCK, SPLIT, 3/8	150925	2
4	WASHER, LOCK, SPLIT, 5/16	151747	4
5	NUT, 3/8-16 HEX CENTERLOCK	153522	2
6	SCREW, HEX, 3/8-16 X 3/4	153527	2
7	SCREW, FLAT HD, 1/4-20X3/4	154657	6
8	KNOB, BALL, 2", 3/8-16 INSERT	158519	1
9	SCREW, 3/8-16 X 3/8 SOCKET HEAD SET, CUP POINT	160713	6
10	CARRIER, CART WHEEL (COMP)	164922	2
11	BASE, INNER PIVOT	164923	1
12	BASE, TRACK RAIL SAW PIVOT	164925	1
13	SUPPORT, TRACK RAIL CROSS,	164931	2
14	AXLE, CONVEYOR WHEEL	164932	4
15	AXLE, ADJ. CONVEYOR WHEEL	164933	2
16	GUSSET (COMP)	165000	1
17	SCREW, 1/4-20 X 3/4 FLAT HEAD PHILLIPS MACHINE	165120	2
18	SCREW, 1/2-13x1-1/4 FLAT HEAD	165164	4
19	GRIP, HANDLE	229413	2

CUTTING HEAD ASSEMBLY P/N 166113



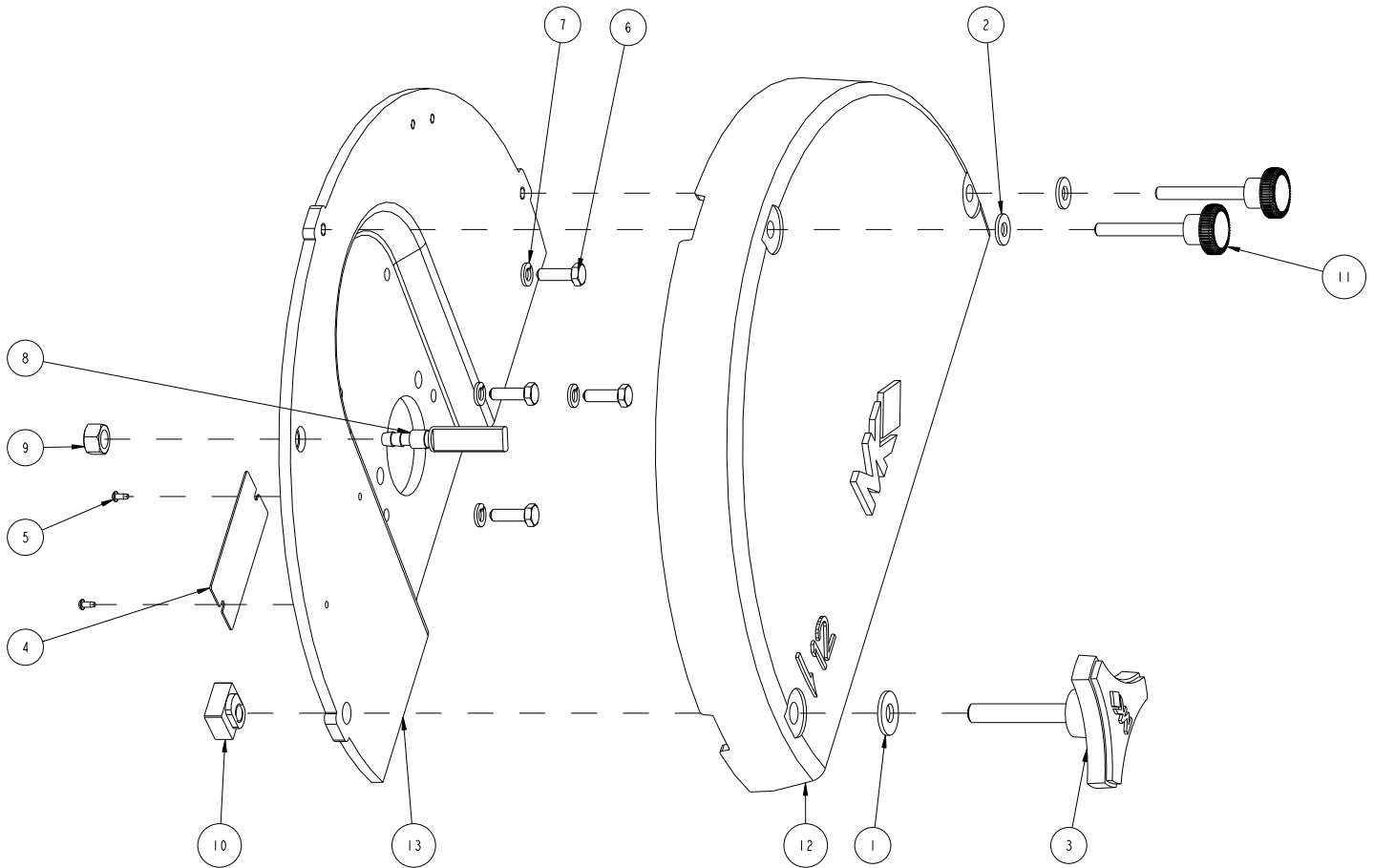


**CUTTING HEAD ASSEMBLY P/N 166113**

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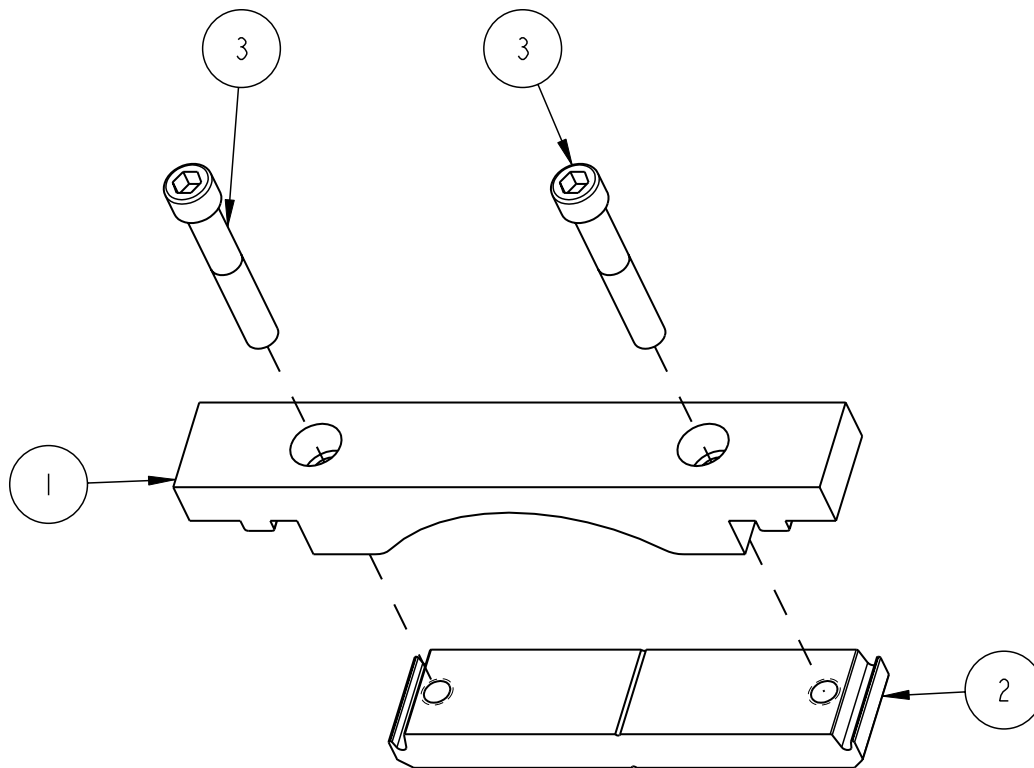
ITEM NO.	DESCRIPTION	PART #	QTY.
1	SCREW,HEX HD,5/16-18X1	151743	2
2	WASHER,LOCK,SPLIT,5/16	151747	2
3	WASHER,FLAT,SAE,5/16	151754	2
4	PIN, PIVOT	164934	1
5	SPRING, 70' TORSION	165272	1
6	ASSY, MOTOR & ARM	166906	1

**BLADE GUARD ASSEMBLY P/N 166107**



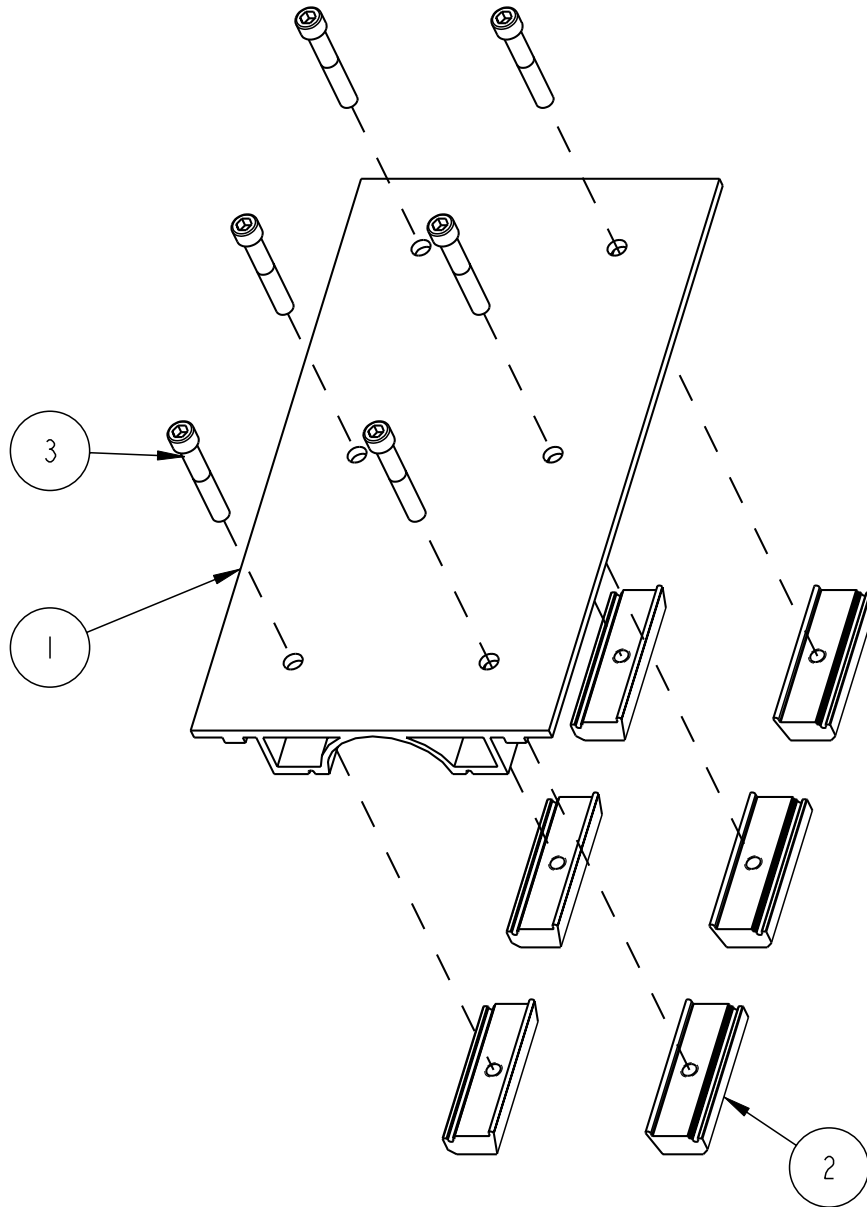
ITEM NO.	DESCRIPTION	PART #	QTY.
1	WASHER, 3/8 SAE FLAT	150923	1
2	WASHER, 1/4 SAE FLAT	151915	2
3	KNOB, TRI PLASTIC, 3/8-16X2-1/4	56770-04	1
4	TAG, SERIAL #, BLANK	157500	1
5	DRIVE SCREW, #7 X 5/16 ROUND HEAD	157849	2
6	SCREW, HEX HEAD CAP, M6 X 1 X 20MM	158158	4
7	WASHER, SPLIT LOCK, M6	158159	4
8	MANIFOLD, WATER	159854	1
9	NUT, 3/8-16 HEX	159863	1
10	NUT, ROUNDED T-SLOT	164945	1
11	KNOB, 1/4-20X2 ROUND	165163	2
12	GUARD, BLADE (COMP)	166109	1
13	GUARD, INNER BLADE (COMP)	166111	1

**PARALLEL RAIL SUPPORT BRACKET P/N 165269**



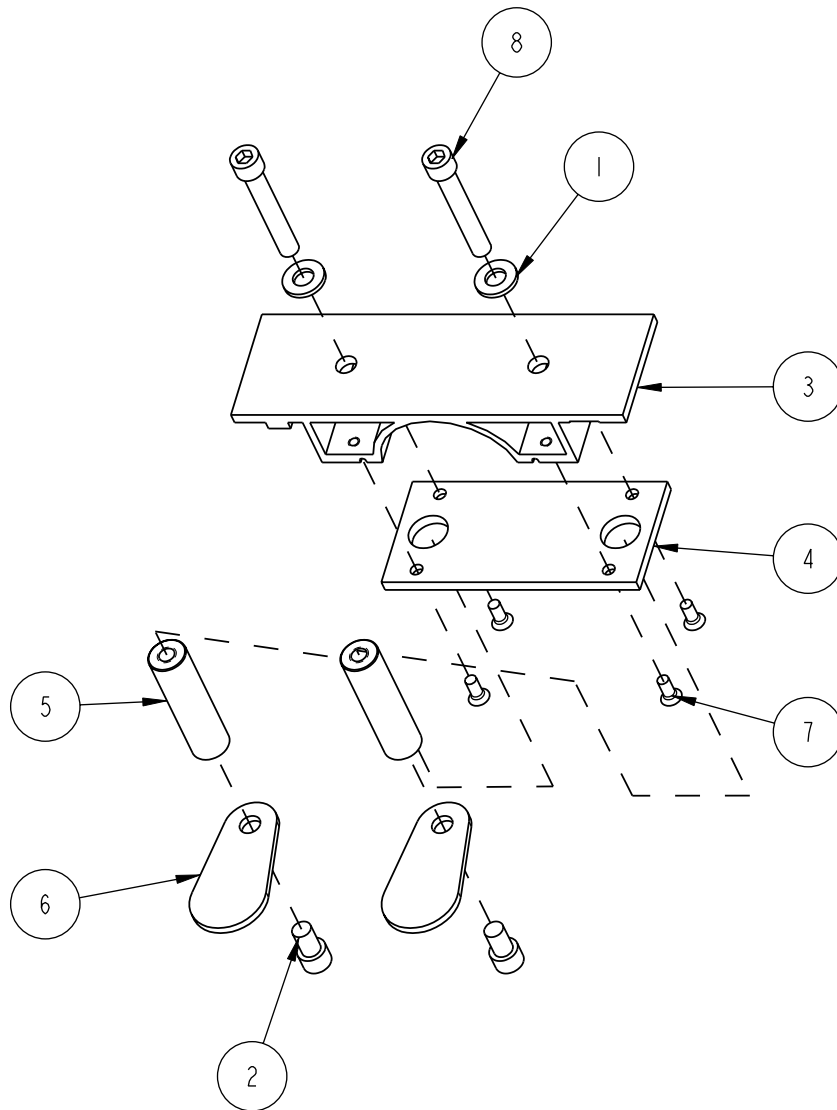
ITEM NO.	DESCRIPTION	PART #	QTY.
1	CLAMP, UPPER RAIL	164939	1
2	CLAMP, LOWER RAIL (COMP)	164942	1
3	SCREW, 5/16-18X2 SOCKET HEAD CAP	165165	2

**RAIL CONNECTOR PLATE P/N 165268**



ITEM NO.	DESCRIPTION	PART #	QTY.
1	PLATE, RAIL CONNECTOR	164936	1
2	SHOE, CONNECTOR (COMP)	164938	6
3	SCREW, 5/16-18X2 SOCKET HEAD CAP	165165	6

**RAIL SAW MATERIAL CLAMP P/N 165113**



ITEM NO.	DESCRIPTION	PART #	QTY.
1	WASHER, 5/16 SAE FLAT	151754	2
2	SCREW, 5/16-18X1/2 SOCKET HEAD CAP	156139	2
3	BASE, MATERIAL CLAMP	165114	1
4	PLATE, MATERIAL CLAMP SUPPORT	165115	1
5	STAND-OFF, THREADED	165116	2
6	FOOT, MATERAL CLAMP	165117	2
7	SCREW, 10-24 X 3/4 FLAT HEAD PHILLIPS MACHINE	165121	4
8	SCREW, 5/16-18 X 2 SOCKET CAP	165243	2

**ORDERING INFORMATION**

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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**

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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**

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- 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**

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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**

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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)**

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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.

**MK DIAMOND TRACK RAIL SAW  
OPERATION & PARTS MANUAL**



**MK Diamond Products, Inc.**

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