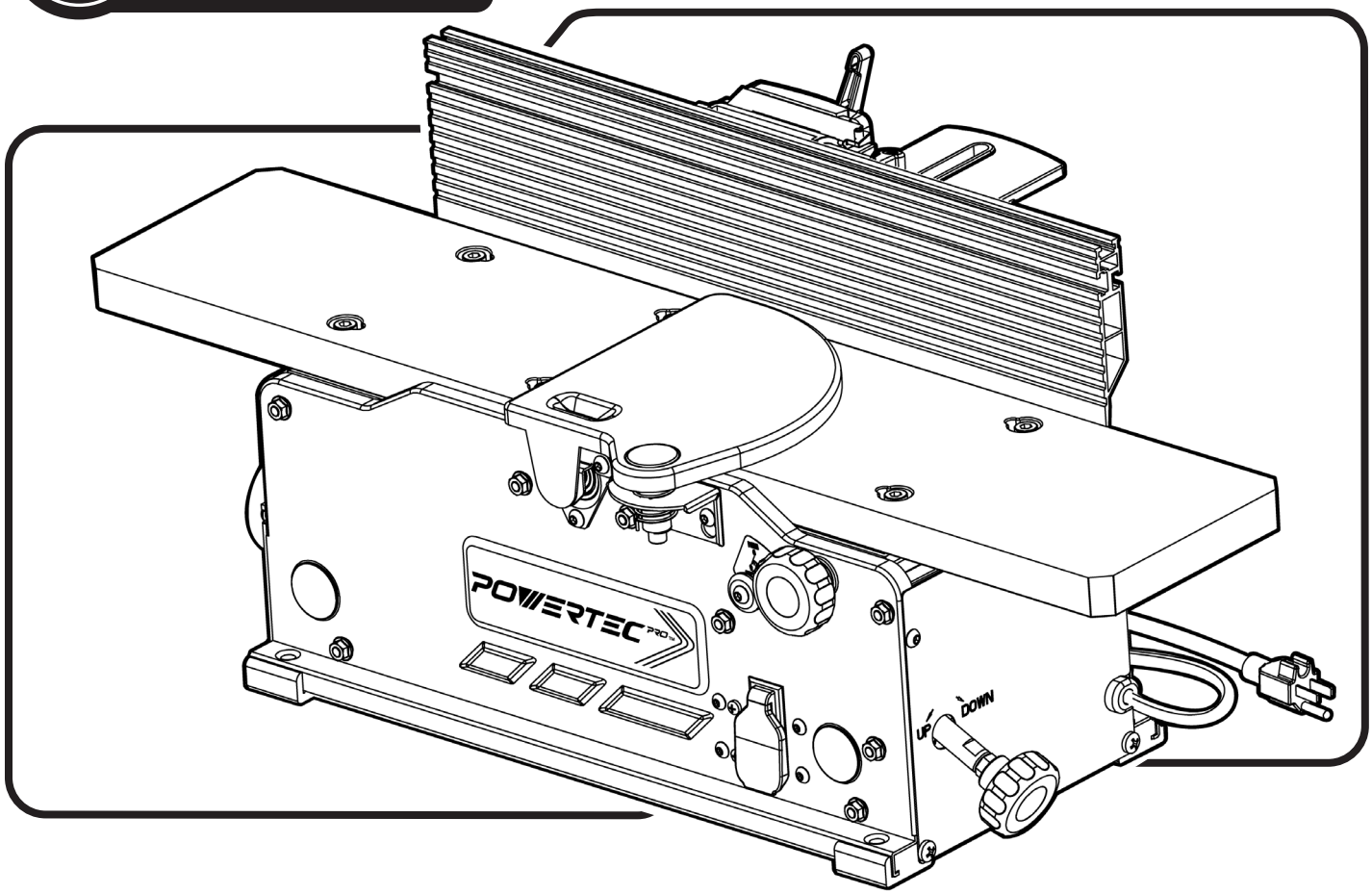
Model No.BJ603

Owner's Manual

POWERTEC PRO™

6" Benchtop Jointer

QUESTION...
1•847•780•6120



Visit us on the web at **www.powertecproducts.com**

You will need this manual for safety instructions, operating procedures, and warranty.
Put it and the original sales invoice in a safe, dry place for future reference.

24-0511

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PRODUCT SPECIFICATIONS

Voltage	**120**
Amps	**10**
Hertz	**60**
Phase	**Single**
Motor:	**1-1/2 HP, 120V~60 Hz, 1-Ph**
Cutterhead:	**2 Knife**
Blade Size:	**6-1/4" x 7/8" x 1/16"**
Cutterhead Diameter:	**1-7/8"**
Cutterhead Speed:	**11,000 rpm**
Cuts Per Minute:	**22,000 cpm**
Maximum Width of Cut:	**6"**
Maximum Depth of Cut:	**1/8"**
Dust Collection Port.	**2-1/2"**
Bevel Jointing:	**90° — 135°**
Table Size:	**6-1/4" x 30" x 1"**
Fence Size:	**19-5/8" x 7/8" x 4-1/4"**
Sound Rating:	**90 — 92 dB**
Net Weight:	**35.2 lbs**
Gross Weight	**41.3 lbs**

⚠ WARNING

For your own safety, read and understand all warnings and operating instructions before using any tool or equipment.

⚠ WARNING

Some dust created by the operation of the power tool contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. To reduce your exposure to these chemicals, work in a well ventilated area and work with approved safety equipment. Always wear OSHA/NIOSH approved, properly fitting face mask or respirator when using such tools.

⚠ WARNING

Failure to follow these rules may result in serious personal injury. Remember that being careless for even a fraction of a second can result in severe personal injury.

WORK PREPARATION

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of the tool.
- Wear protective hair covering to contain long hair.
- Nonslip protective footwear is recommended.
- Wear eye and hearing protection. Always use safety glasses. Eye protection equipment should comply with ANSI Z87.1 standards. Hearing equipment should comply with ANSI S3.19 standards.
- Wear face mask or dust mask if operation is dusty.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications known to cause drowsiness.

WORK AREA PREPARATION

- Keep work area clean. Cluttered work areas and benches invite accidents.
- Work area should be properly lighted.
- Do not use the machine in a dangerous environment.
- The use of power tools in damp or wet locations or in rain can cause shock or electrocution.
- Three-prong electrical plug should be plugged directly into properly grounded, three-prong receptacle.
- Keep children and visitors away. Your shop is a potentially dangerous environment. Children and visitors can be injured.
- Make your workshop childproof with padlocks, master switches or remove Switch keys to prevent any unintentional use of power tools.

TOOL MAINTENANCE

⚠ WARNING

Turn the machine **OFF**, and disconnect the machine from the power source prior to inspection.

- Maintain all tools and machines in peak condition.
- Keep tools sharp and clean for best and safest performance.
- Follow instructions for lubricating and changing accessories.
- Check for damaged parts. Check for alignment of moving parts, binding, breakage, mounting and any other condition that may affect tool's operation.
- Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
- A guard or any other part that is damaged should be repaired or replaced. Do not perform makeshift repairs.

TOOL OPERATION

- Avoid accidental start-up. Make sure the tool is in the “OFF” position before plugging in.
- Use the right tool for the job. Do not force the tool or attachment to do a job for which it was not designed.
- Disconnect tool when changing parts.
- Don't force the workpiece on the machine. Damage to the machine and/or injury may result.
- Never leave tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- Do not overreach. Loss of balance may cause a fall into a working machine, causing injury.
- Never stand on equipment. Injury could occur if the tool tips, or if user accidentally contacts the cutting apparatus.
- Know the tool. Learn the tool’s operation, application and specific limitations before using it.
- Use recommended accessories. Use of improper accessories may cause damage to the machine or injury to the user.
- Handle workpiece correctly. Keep hands away from moving parts.
- Turn tool off if it jams.

⚠ CAUTION

Think safety! Safety is a combination of operator common sense and alertness at all times when tool is being used.

⚠ WARNING

Do not attempt to operate tool until it is completely assembled according to the instructions.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE

POWER SUPPLY SAFETY RULES

⚠WARNING

Do not use the machine until it is completely assembled and you have read and understood the entire operating manuals.

- The machine must be installed in a well-lit area with correct power supply. There must be enough clearance for the moving workpiece during operation. There must be enough room for safe operation of the machine.

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POWER SOURCE

⚠WARNING

Do not connect to the power source until the machine is completely assembled.

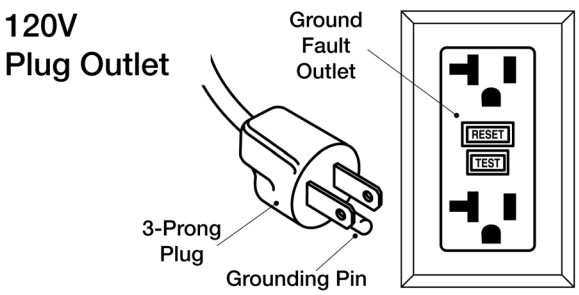
- The machine is wired for 120 Volts, 60 Hz alternating current. Before connecting the machine to the power source, make sure the Switch is in the **OFF** position, and Safety KEY removed.
- Running the unit on voltages which are not within range may cause overheating and motor burn-out. Heavy loads require that voltage at motor terminals be no less than the voltage specified on nameplate.
- Power supply to the motor is controlled by a locking rocker Switch. Remove the Safety KEY to prevent unauthorized use.

GROUND CONNECTION INSTRUCTIONS

⚠WARNING

The machine should be grounded before use to protect operator from electrical shock. All tools must be connected to ground. Improper connection of equipment grounding conductor can risk electrical shock.

- In the event of an electrical short circuit, grounding reduces the risk of electrical shock by providing an escape wire for the electricity.
- This machine is equipped with an approved 3-conductor cord rated at 120V and a 3-prong grounding type plug for your protection against shock hazards.
- Grounding plug should be plugged directly into a properly installed and grounded 3-prong grounding-type receptacle, as shown below.
- The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- Check with a qualified electrician or service personnel if these instructions are not completely understood or if in doubt as to whether the tool is properly grounded.
- Do not modify plug provided. If it will not fit in outlet, have proper outlet installed by a qualified electrician. Use only 3-wire extension cords, that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown below.
- NEVER use a 3-to-2 prong adapter.



ELECTRICAL CONNECTIONS

⚠WARNING

Turn the Switch off and disconnect the machine from power source before performing any repair or maintenance work.

- Some electrical wiring and connection work must be performed by a qualified electrician in accordance with local regulations.
- There is a green grounding wire fastened to the frame of the machine to provide shock protection. Do not disconnect the grounding wire from the frame.
- The motor is rated for used at 120 Volts.
- Connect this machine to 3-Conductor power outlet with appropriate rating only.
- Use only 3-pronged extension power cord with appropriate rating with this machine.
- When changing the power cord, use only 3-pronged power cord with appropriate rating.
- The power Switch is a single pole rocker Switch with locking mechanism. Remove the Safety KEY when not in use to prevent accidents.

⚠WARNING

Do not permit fingers to touch the terminals of plug when installing or removing from outlet.

- Inspect tool cords periodically. If damaged, have repaired by an authorized service facility.
- The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the green (or green and yellow) wire to a live terminal.

GUIDELINES FOR EXTENSION CORD USE

⚠WARNING

The use of an extension cord is not recommended. The use of any extension cord will cause some drop in voltage and loss of power. **Undersized cords cause a drop in voltage** resulting in power loss and overheating.

Use proper extension cords. Ensure extension cord is in good condition. Use only 3-wire extension cords with 3-prong grounding type plugs and 3-pole receptacles which accept the tool plug. When using an extension cord use one heavy enough to carry the current of the Planer. Cords specifically for outdoor use reduce risk of electrical shock and are marked "W" or "W-A".

NOTE: *The tables below show the correct gauge size to cord length and nameplate ampere rating. When in doubt, use a heavier cord.* **The smaller the gauge number—the heavier the cord.**

Determine Minimum AWG Extension Cord Length						
Ampere Rating		Volts	Cord Length—Feet (meters)			
		120V	25' (7.6)	50' (15.2)	100' (30.5)	150' (45.7)
		240V	50' (15.2)	100' (30.5)	200' (61.0)	300' (91.4)
More Than	No More Than		AWG *(American Wire Gauge)*			
0	6		18	16	16	14
6	10		18	16	14	12
10	12		16	16	14	12
12	16		14	12	*Not Recommended*	

UNPACKING

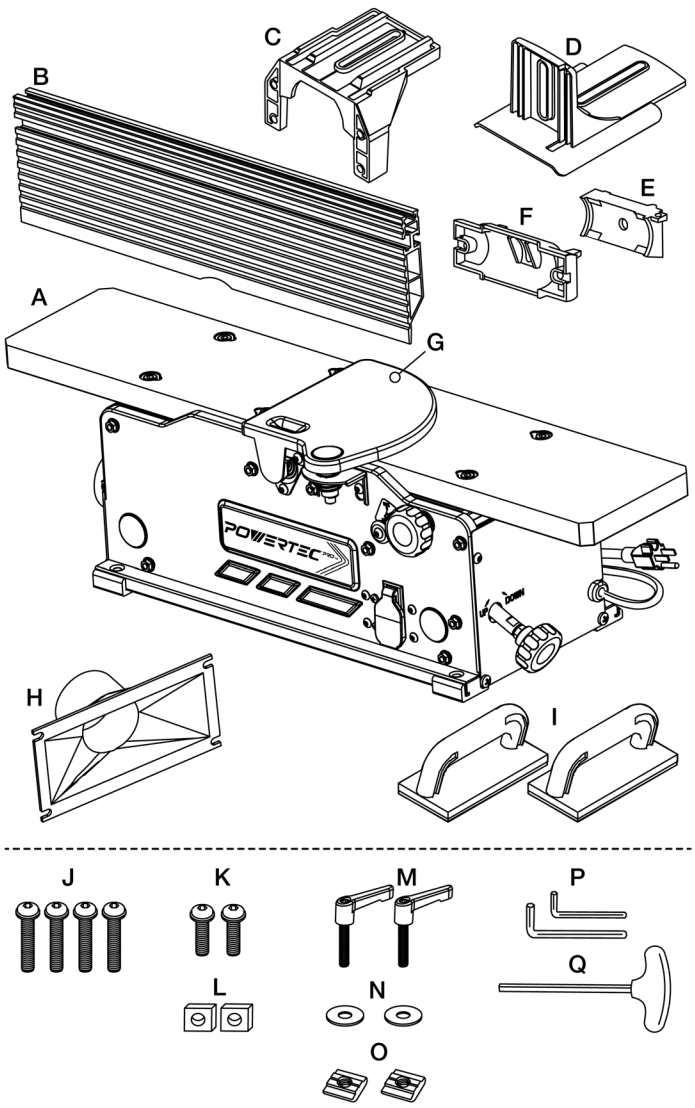
Check for shipping damage. Check immediately whether all parts and accessories are included. Please contact the customer service center at 1-847-780-6120.

• This Jointer comes partially assembled. It requires additional assembly, installation, and adjustment before use. **Do not use the machine until it is completely assembled.**

CONTENTS

ITEM	DESCRIPTION	QTY
A	6" Jointer Bed Assembly	1
B	Fence	1
C	Fence Support	1
D	Fence Bracket Assembly	1
E	Swivel Base	1
F	Fence Connecting Base	1
G	Cutterhead Guard	1
H	Dust Port (Pre-assembled)	1
I	Push Blocks	2
ITEM	**HARDWARE**	**QTY**
J	Hexagon Socket Head Screws	4
K	Button Head Cap Screws, M6-1 x 16	2
L	Square Nuts, M6	2
M	Fence Slide Lock Handles	2
N	Fender Washers, 8 mm	2
O	Adjustable Square Nuts, M8	2
P	Hex Wrenches, 2.5 mm, 4 mm	1 ea.
Q	T-Handle Torque Wrench T-30	1

Figure 1



SAFETY PRECAUTIONS

⚠WARNING

For your own safety, read the entire operating manual and safety instructions before using this tool.

- Be aware of general power tool safety. Make sure all the safety rules are understood.
- Turn Switch to **OFF** position and disconnect the machine from power source.
- Disconnect the machine from power source whenever adjusting or replacing any parts.
- Do not plug Jointer in unless Switch is in the **OFF** position.
- Keep hands away from all moving parts.
- Wear eye and hearing protection. Always use safety glasses. Wear face mask or dust mask if operation is dusty.
- Ensure all adjustable parts are free from interference.
- Keep blades sharp, aligned and properly attached cutterhead.
- Properly secure the blades in the cutterhead.
- **Never** turn the machine **ON** with the workpiece contacting the cutterhead.
- Never make cuts deeper than 1/8" (3.2 mm) to prevent kickback.
- Do not force cut. Slowing or stalling will overheat the motor.
- **Do not perform planing on workpiece shorter than 10", narrower than 3/4", wider than 6" or less than 1/2" thick.**
- Properly support long or wide workpieces.
- To prevent kickback: Never use a workpiece that is warped, contains knots, or embedded nails, staples, metal, etc.
- Do not feed a workpiece into the Jointer OUTFEED table.
- Do not allow anyone to stand or cross in line of cutterhead rotation. Kickback or thrown debris will travel in this direction.
- Turn Switch **OFF**—disconnect power when Jointer is not in use.
- Keep Jointer maintained. Follow maintenance instructions.

ATTACH FENCE SUPPORT

1. **See Figure 2.** Rest Fence Support (C) onto support block on back of Jointer (A).
2. Use four Hexagon Socket Head Bolts (J) to attach Fence Support (C) to the back of Jointer (A).
3. **See Figure 3.** Push Button-Cap Hex Screws (K) through holes in Fence Connecting Base (F). Loosely thread Square Nuts (L) onto the screws.
4. Position Swivel Base (E) aligning hole with vertical slot on Fence Bracket (D).
5. Slide Washer (N) onto Handle (M), slip through vertical slot, through hole on Swivel Base (E), and Fence Connecting Base (F). Thread Square Nut (O) onto Handle (M). Hand Tighten.
6. Maneuver Square Nuts into T-Slot on Fence. Tighten Button Cap Hex Screws (K).
7. Place entire assembly onto Fence Support (C). Slide Washer (N) onto Handle (M) and slide Handle through horizontal slot on Fence Support (C).
8. Secure into place with Square Nut (O). Hand tighten.

Figure 2

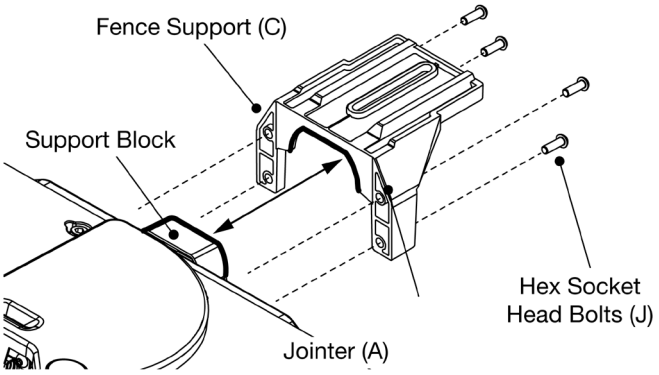
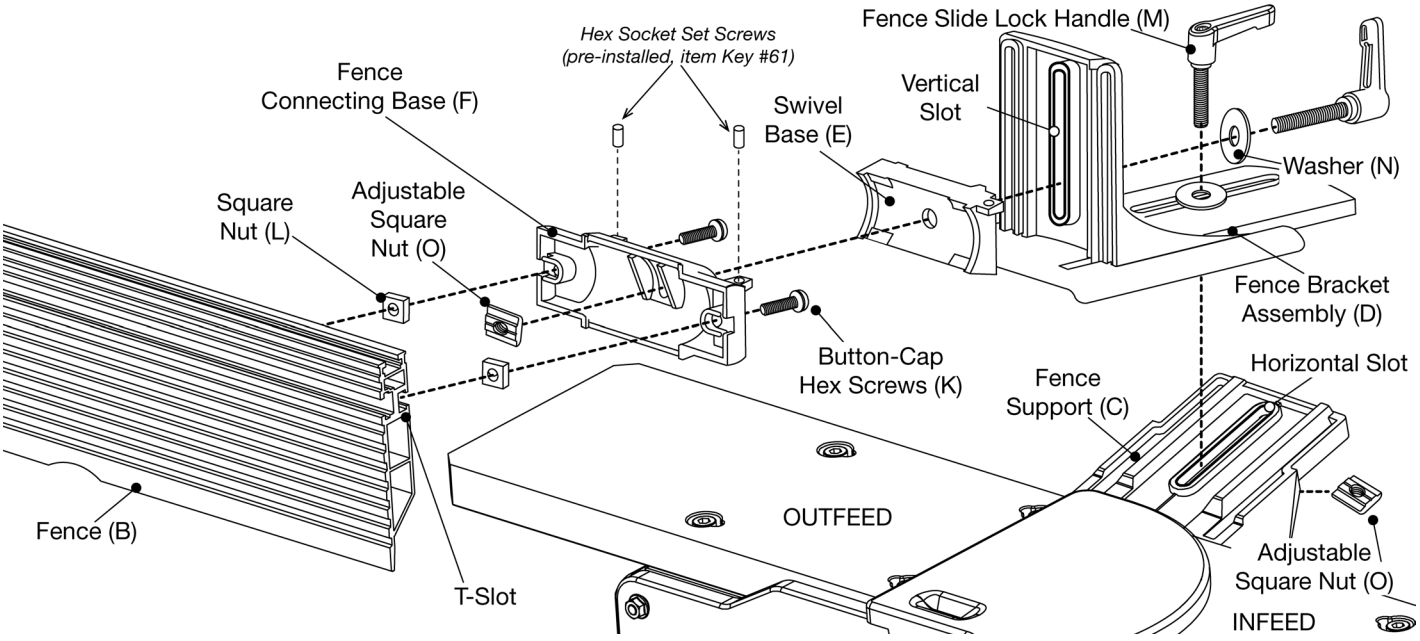


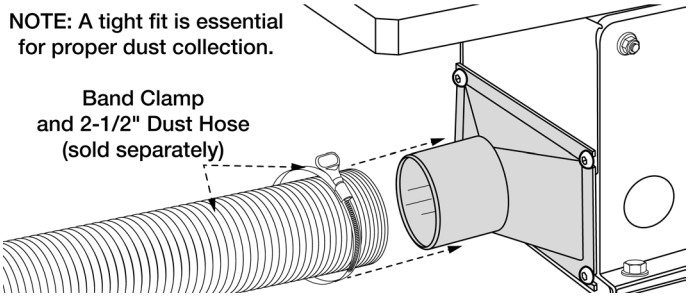
Figure 3



DUST PORT

1. Dust Port (H) is pre-assembled on the Jointer and is intended to connect the Jointer to a **Dust Collection System** (sold separately). For best results, ALWAYS operate with dust collection. ***If dust collection is not available, it is essential to remove the dust port to prevent a buildup or compaction of chips and shavings.***

Figure 4

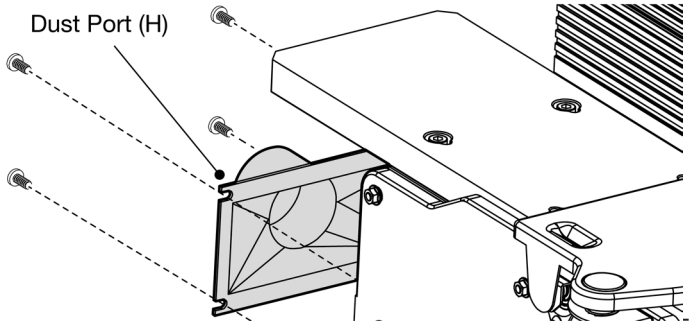


⚠WARNING

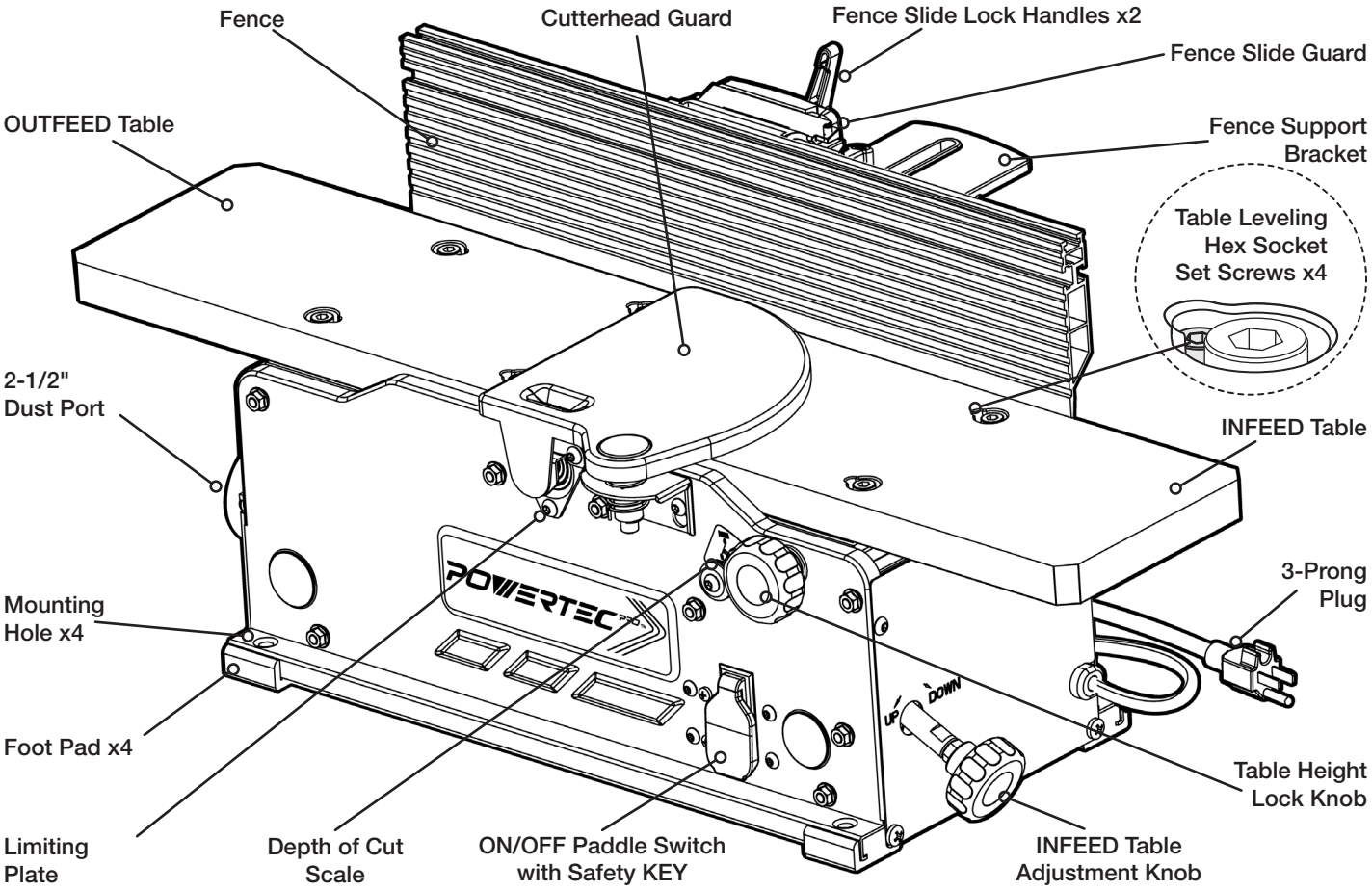
Turn Switch to **OFF** position and disconnect Jointer from power source before cleaning or removing debris.

2. For cleaning, maintenance, or when dust collection is not available, turn machine OFF and disconnect from power source, remove screws and Dust Port.

Figure 5



BJ603 JOINTER OPERATIONAL FEATURES



MOUNT JOINTER TO WORKBENCH

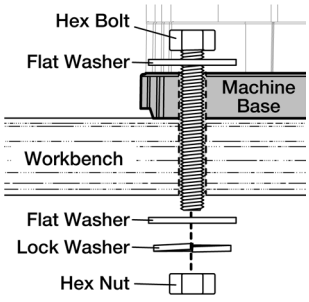
The Jointer is equipped with 4 mounting holes in each corner of the base. **Spacing: 17.32" (440 mm) x 8.17" x (207.60 mm).** These allow the user to permanently secure the Jointer to a workbench preventing movement during operation which could cause damage or injury during operation.

Through Mount:

This is the strongest and preferred mounting option.

1. Mark placement on the workbench.
2. Drill four 1/4" holes all the way through the workbench.
3. Use Hex bolts, washers, and hex nuts to secure base.

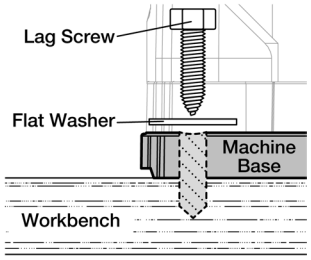
Figure 6



Direct Mount:

1. Mark placement on the workbench.
2. Drill four 1/4" holes into the workbench.
3. Secure with Lag Screw and Flat Washer directly into the workbench.

Figure 7



ON / OFF PADDLE SWITCH

The **ON/OFF** Switch is located on the front of Jointer.

NOTE: *When Jointer is not in use it should be in the **OFF** position and Safety KEY removed to prevent unauthorized use.*

To Turn Jointer ON

Pull Paddle Switch up.

To Turn Jointer OFF

Push Paddle Switch down.

To Lock Jointer

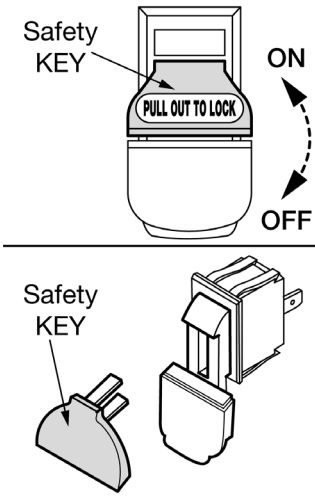
Push Paddle Switch to **OFF** position. Pull Safety KEY out. The machine cannot be turned on without the Safety KEY.

If Safety KEY is removed when Switch is in the **ON** position the machine is locked. Switch can be turned off but not turned on.

To Unlock Jointer

Reinsert Safety KEY until it clicks into place.

Figure 8



NOTE: *The Jointer WILL NOT operate without Safety KEY. Before powering on Jointer, ensure Safety KEY is fully inserted into the Switch.*

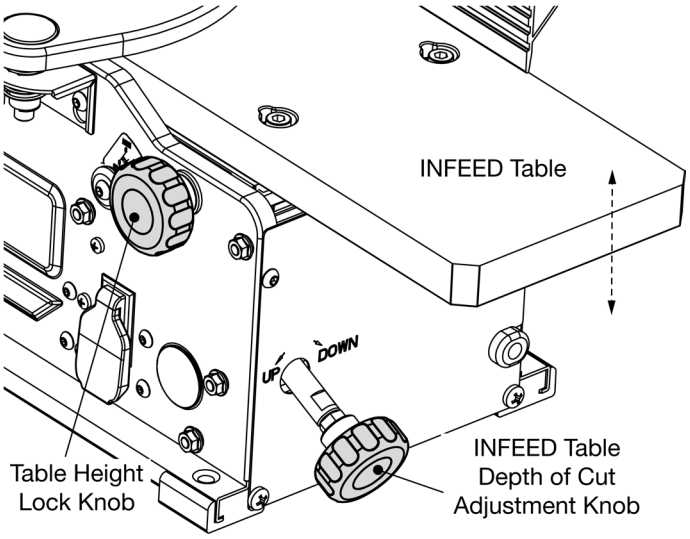
JOINTER FUNCTIONS

INFEED Table, on the right side of the Jointer, is adjustable and supports the workpiece before it reaches the cutterhead. Set height for the INFEED Table relative to cutterhead to determine Depth of Cut.

INFEED Table Depth of Cut Adjustment Knob adjusts height of INFEED Table to control depth of cut.

Table Height Locking Knob sets the adjustment. Tighten to secure INFEED Table position; loosen for table adjustments.

Figure 9



OUTFEED Table, on the left, is in a fixed/stationary position and supports the workpiece after it passes over the cutterhead.

Depth-of-Cut Scale indicates cut depth per pass.

Cutterhead Guard safely covers cutterhead until driven aside by workpiece during operation. When workpiece moves past cutterhead, guard springs back to its starting position.

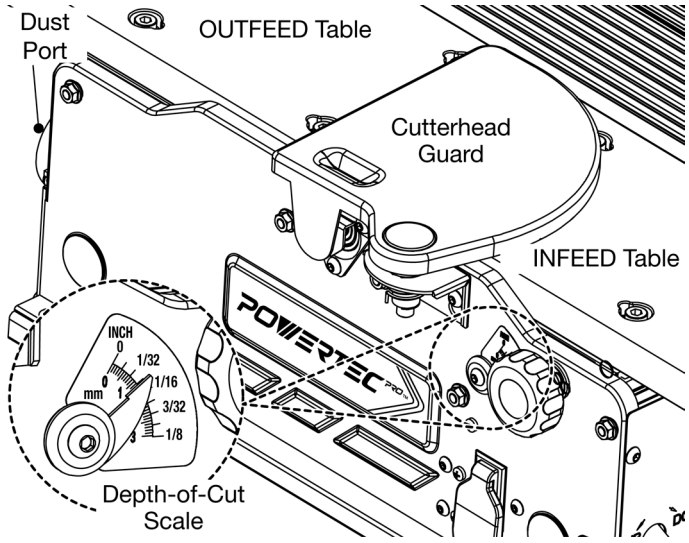
⚠WARNING

DO NOT operate Jointer if guard is not functioning properly.

Dust Port Attachment is intended to connect machine to a dust collection system (sold separately).

ALWAYS remove Dust Port if operating machine without dust collection system.

Figure 10

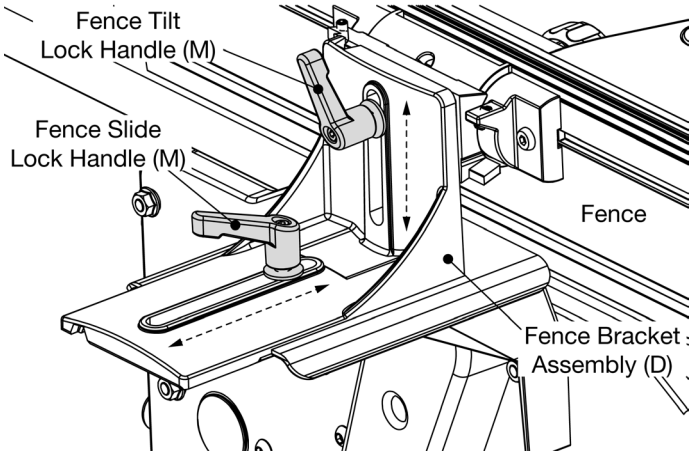


Fence supports the workpiece laterally while moving over the cutterhead—determines angle of cut when bevel or edge joining.

Fence Bracket Assembly alters position of fence relative to table and secures into position with Fence Slide Lock Handle (M).

Fence Tilt Lock Handle secures angle of fence tilt. Fence tilt is adjustable between 90°—135°. ALWAYS tighten Fence Tilt Lock Handle (M) before operating.

Figure 11



TEST RUN A JOINTING OPERATION

Operator must follow these procedures

NOTE: *See precautionary warnings in Figure 12.*

- Examine workpiece to verify it is safe and suitable for jointing. No large or loose knots, nails or foreign objects imbedded. These particles could spark causing damage or fire.
- Adjust fence for width of workpiece and lock it in place.
- Adjust fence tilt, if necessary.
- Adjust INFEED table height to set depth of cut per pass.
- Ensure cutterhead guard position is correct and operation is functioning properly.
- Wear safety glasses, respirator, and any other required protective equipment.
- ***Start Jointer.***
- Use push blocks to hold workpiece firmly against INFEED table and fence. Feed workpiece over cutterhead at a steady and controlled rate until entire length of workpiece has been cut and it clears the cutterhead on the OUTFEED table side.
- Repeat cutting process described above until desired results are achieved.
- ***Stop Jointer.***

Figure 12

ADJUSTING FENCE POSITIVE STOPS

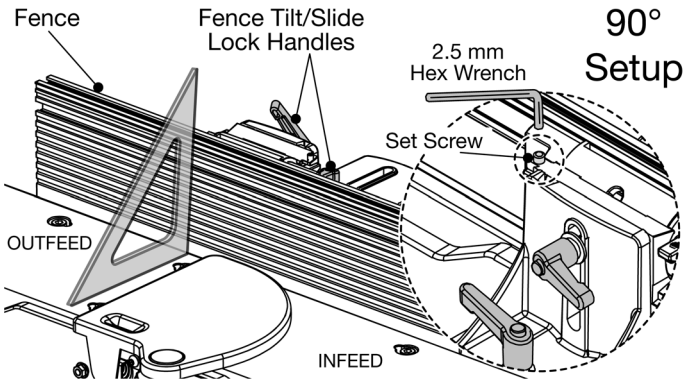
⚠WARNING

Turn Switch to **OFF** position and disconnect Jointer from power source.

This Jointer features Aluminum die-cast tables and balanced Guide Fence for cutting angles 90° — 45° (outward 135°).

- **90° —** Place a square flush against OUTFEED table top and flush against Fence.
- Loosen the Fence Lock Sliding Handle and position Fence to desired position.
- Adjustments are made by loosening/tightening the Fence Tilt Lock and Slide Lock Handles.
- Verify 90° setting then tighten Fence Tilt Lock and Fence Slide Lock Handles.
- Tighten set screw with 2.5 mm Hex Wrench until it contacts the stop block on Fence Connecting Base.

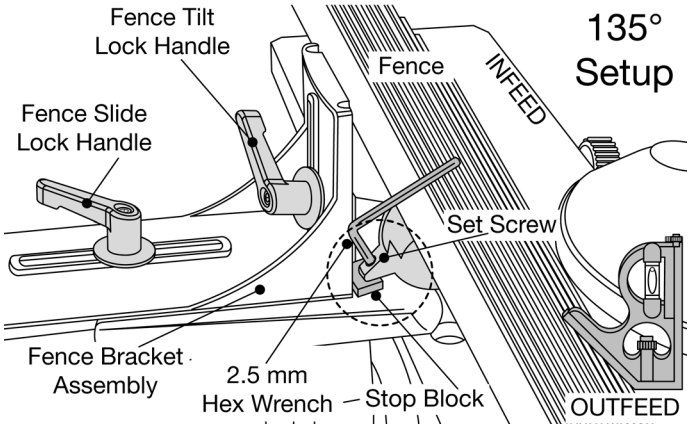
Figure 13



- **135° —** Loosen Fence Tilt Lock Handle and place a combination square on Jointer OUTFEED table with 45° outward side against Fence.
- Ensure base of combination square is flush on OUTFEED table and 45° is flush with Fence.
- Adjustments are made by loosening/tightening the Fence Tilt Lock and Slide Lock Handles.
- Verify 135° setting then tighten Fence Tilt lock and Fence Slide Lock Handles.
- Tighten with 2.5 mm Hex Wrench until it contacts the stop block on the Swivel Base.

NOTE: *After setting both stops, verify position. Recheck with a combination square and adjust as required.*

Figure 14



BLADE HEIGHT ADJUSTMENT

⚠WARNING

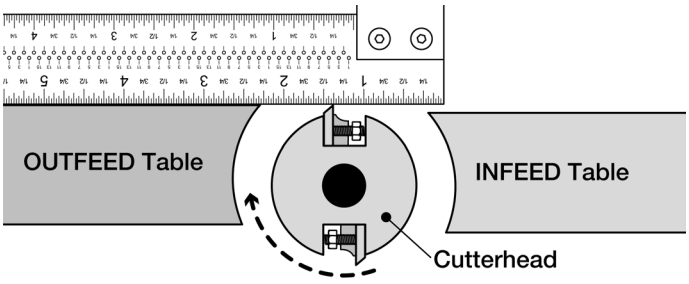
Turn Switch to **OFF** position and disconnect Jointer from power source.

⚠ CAUTION

NEVER touch the blade's cutting edge at any time.
The blades arrive factory calibrated and should require no adjustment. However, blades may become misaligned during shipping and handling.

- For accurate cutting blades must be flush with OUTFEED table.
- Remove Fence.
- Loosen, but not remove, two screws holding base of Cutterhead Guard then remove Cutterhead Guard.
- Lower INFEED table to gain access to Cutterhead.
- Wear heavy gloves while turning cutterhead until blade-lock screws are facing up.
- **Refer to Figure 21.** Slightly Loosen (about 1/2 turn) four Blade Lock Screws with 4 mm Hex Wrench (included).
- Position a straight edge on OUTFEED table. It should extend over Cutterhead.
- Gently rotate Cutterhead under straight edge. Blades should just touch straight edge by a fraction. Blades may brush straight edge and pull it forward slightly (no more than 1/8" on each blade pass).
- **If blade does not touch straight edge, it is too low.** Turn Gib Adjustment Screws **counterclockwise** to raise.
- **If blade pulls straight edge forward more than 1/8", it is too high.** Turn Gib Adjustment Screws **clockwise** to lower.
- Check blade height at both ends of blade to verify it is level from side to side.
- Lightly tighten four blade lock screws. Rotate to next knife.
- Using same procedures set second knife.
- Using straight edge again, verify both knives are set correctly. Firmly tighten all blade clamp screws.
- Reinstall Cutterhead Guard.

Figure 15

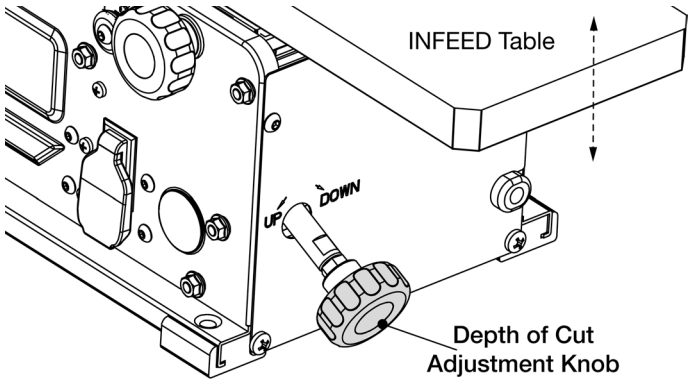


DEPTH OF CUT ADJUSTMENT

Do not attempt to cut more than 1/8" deep per run.

- **For hardwood**: The recommended depth is 1/16" or less per run in order to reduce the danger of Kickback.
- **For Deeper Cut: Lower the INFEED table DOWN** by turning the Depth of Cut Knob **clockwise**.
- **For Thinner Cut: Raise INFEED table UP** by turning Depth of Cut Knob **counterclockwise**.

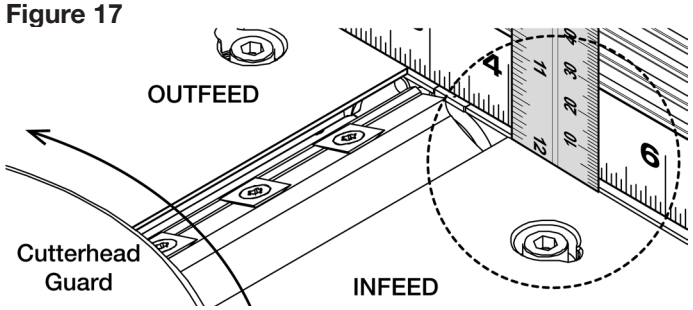
Figure 16



TO VERIFY DEPTH OF CUT

Rest a straight edge on the OUTFEED table and extend it over the INFEED table. With a rule measure distance from top of INFEED table to bottom of straight edge. This measurement will be the depth of cut.

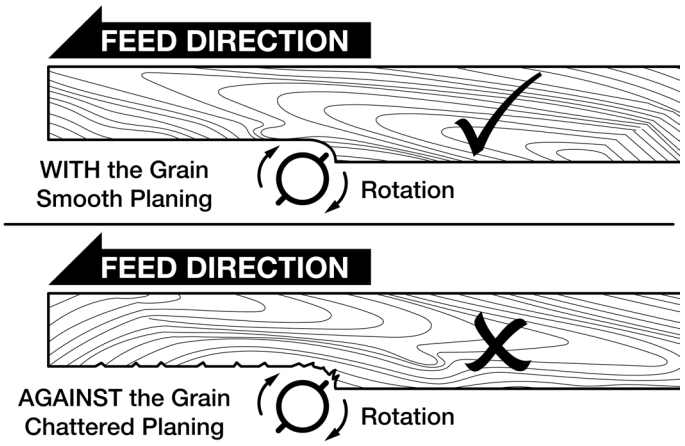
Figure 17



FEED DIRECTION

- Determine the direction of the grain. Feed workpiece from INFEED side of Jointer **with the grain** for a smooth result.
- *Avoid feeding work into Jointer against the grain.* The result will be a rough, chattered surface caused by chipped and splintered edges on the surface of the wood.

Figure 18



FEED THE WORKPIECE

⚠WARNING

Risk of serious bodily injury. Never process a workpiece shorter than 10", narrower than 3/4", or less than 1/2" thick. Doing so can cause severe injuries to your hands by accidentally getting into the rotating cutterhead.

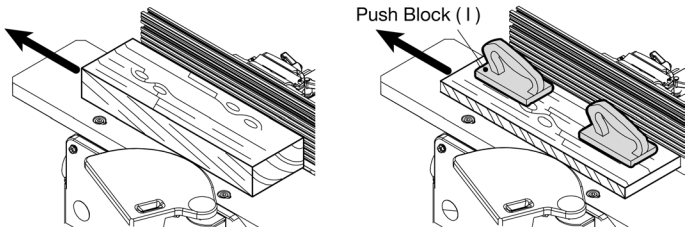
To prevent kickback, blade damage, or injuries to the operator, never feed a workpiece that has large knots, loose knots, or foreign bodies like wires, nails, staples,

- **Only process natural wood fiber.** Never attempt to use painted wood, particle board, plywood, MDF, plastics, metal, laminated articles or other synthetic materials on this Jointer.
- **To feed the workpiece through the cutterhead:** Hold the board firmly down on the INFEED table and against the fence. Use Hold Down Blocks if indicated (see next section).
- **Keep fingers close together** to prevent injury.
- **Feed workpiece toward cutterhead slowly** and at a constant speed while applying moderately-firm pressure. Avoid halting movements or stopping during the process as this may cause an uneven step on the workpiece.
- **Depending on workpiece length,** it may be necessary to alternate hands during the process. As soon as the trailing hand passes the cutterhead, move the leading hand to the back while keeping uniform pressure with remaining hand. The remaining hand has now become the leading hand. Repeat this shuffling process until the entire workpiece passes over the cutterhead.
- **When alternating your hands,** always keep firm control of the workpiece while keeping the feed speed constant.
- **Surface plane on the Jointer** – The concave face to the workpiece is the surface planed flat with the Jointer.
- **Edge Jointing on the Jointer** – The concave edge of the workpiece is jointed flat with the Jointer.

WHEN TO USE PUSH BLOCKS

- Use Push Blocks when processing any workpiece that is lower than the fence height.
- Position the Hold Down/Push Blocks on top of workpiece to ensure good contact and firm control during the process.
- Push Hold Down/Push Blocks down firmly against the workpiece on the table. Proceed to feed the workpiece toward cutterhead.
- When jointing or planing a workpiece narrower than the push blocks, tilt the push blocks as it passes the cutterhead guard while feeding.

Figure 19

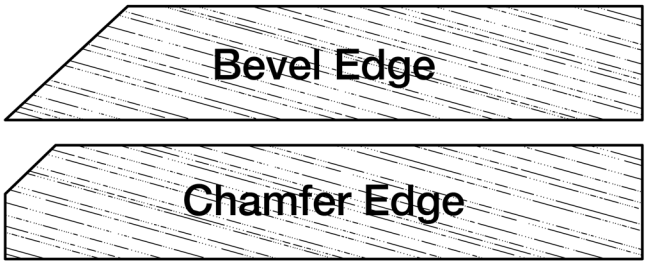


BEVEL AND CHAMFER CUT

Beveling is cutting the entire edge of a workpiece at an angle. Beveling may require several passes due to the depth of the cut needed.

Chamfering refers to removing only the corner of the edge of a board. Normally a chamfer is made in one pass; so a 1/16" deep cut is made.

Figure 20



SHARPENING BLADES

⚠WARNING

Turn Switch to **OFF** position and disconnect Jointer from power source before any maintenance work.

- Never mix new blades with old blades on the cutterhead.
- Never mix blades with different degrees of wear.
- Never use a blade if unbalanced side-to-side wear is present.
- Never use a blade that has been reground to less than 13/16" wide.
- The blades can be sharpened with a fine sharpening stone.
- Protect the table top surface while sharpening.
- Adjust the INFEED table so the sharpening stone can reach beveled edge of the blade.
- Gently grind the stone against the blade edge from side to side until the blade is sharp again.
- Repeat the same procedure on each blade.
- If the blades can not be sharpened this way, they need to be replaced or removed and reground. If a blade becomes less than 13/16" wide after several passes, it has to be replaced.

REPLACE THE BLADES

⚠WARNING

Turn Switch to **OFF** position and disconnect Jointer from power source before any maintenance work.

- **Replace new blades in SETS only.**
- Never mix new blades with old blades on Cutterhead.
- Never mix blades with different degrees of wear.
- Never use a blade if side to side unbalanced wear is present.
- Remove Fence.
- Loosen, but not remove, two screws holding base of Cutterhead Guard then remove Cutterhead Guard.
- Lower INFEED table to gain access to Cutterhead
- Wear heavy gloves while turning cutterhead until blade-lock screws are facing up.
- Use 4 mm Hex Wrench (included) to loosen and remove all blade lock screws.
- Remove blades and blade clamps and clean all debris from Cutterhead pocket.
- Assemble blade clamp and new replacement blade. Place this assembly onto Cutterhead.
- Loosely secure blade and blade clamp with blade lock screws.
- Adjust blade height before tightening blade lock screws. Use a wood block to gently push down blade until blade edge is slightly below straightedge.
- Check and adjust blade height at both ends of the blade.
- Tighten blade lock screws.
- Recheck blade height one more time. Adjust Gib Adjustment Screws on Cutterhead if necessary.

Figure 21

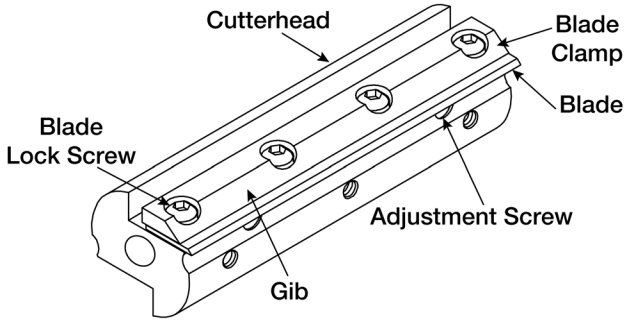
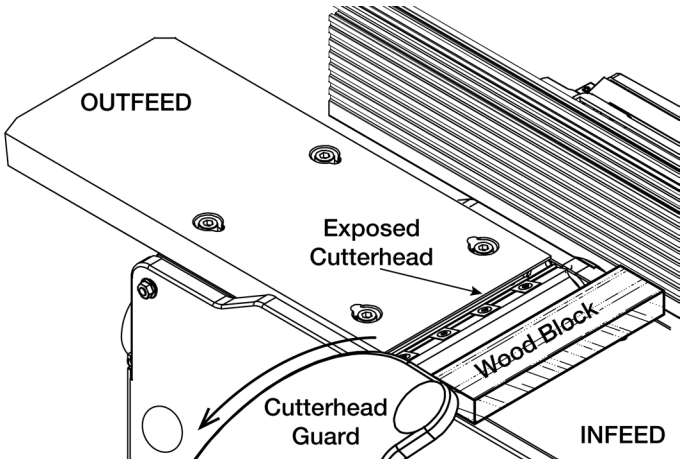


Figure 22



To Adjust Blade Height see page 9.

RE-LEVEL INFEED TABLE

The tables are preset at the factory. If the INFEED table requires re-leveling follow these instructions.

⚠WARNING

Turn Switch to **OFF** position and disconnect the machine from power source.

1. Slide Fence off the table.
2. Remove Cutterhead Guard.
3. See Figure 23. Set INFEED Table Depth-of-Cut Scale to "0".
4. See Figure 24. Place a level or straightedge on top of the OUTFEED and INFEED tables ensuring both tables are parallel.

Figure 23

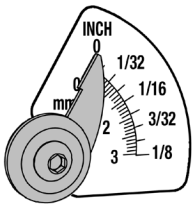
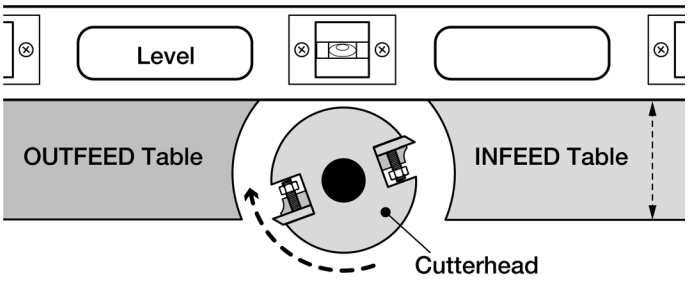
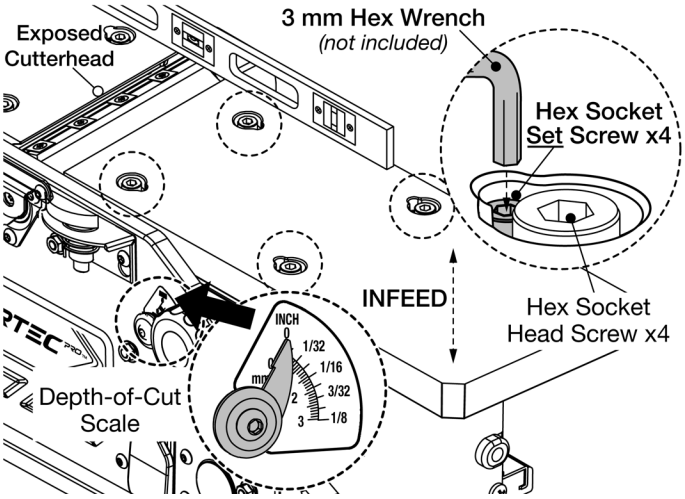


Figure 24



5. See Figure 25. The INFEED table has 4 Hex Socket **Set** Screws.
6. Loosen Hex Socket Head Screws **before** adjusting Hex **Set** Screws.
7. Turn **Set** Screws **clockwise** to lift the table and **counterclockwise** to lower the table. Tighten the Hex Socket Head Screws when adjustment is complete.
8. After adjustment—Depth-of-Cut Scale is calibrated to "0".
9. This process ensures the INFEED and OUTFEED tables are coplanar, which is crucial for achieving optimal results when using the Jointer.

Figure 25



MAINTENANCE

REPLACE THE DRIVE BELT

⚠WARNING

Turn Switch to **OFF** position and disconnect Jointer from power source before any maintenance work.

- Unscrew and remove the pulley cover.
- Remove the drive belt from the pulleys.
- Replace with only new drive belt. Place the new drive belt onto the pulley groove on both ends.
- Replace the pulley cover, secure with screws.

INSPECT AND REPLACE MOTOR BRUSHES

⚠WARNING

Turn Switch to **OFF** position and disconnect the Jointer from power source before any maintenance work.

- Inspect the motor brushes after every 100 hours of use. Brush life varies, depending on the motor loads.
- Replace the motor brushes in set (Two brush assemblies) only. Replace with new parts only.
- To inspect motor brushes, unscrew brush caps on the sides of motor. There are two caps, one on each side of motor.
- Remove brush assembly from motor.
- Replace motor brushes if the length of carbon has been worn to less than 3/8”, or if the springs are worn, or if the motor does not run smoothly.
- Replace with new motor brush assembly. Replace the brush cap and tighten the screw.
- Repeat the same procedure on the other side of motor.

LUBRICATION

- Motor and cutterhead bearing are permanently sealed in factory, they should require no further lubrication.

GENERAL MAINTENANCE

Keep the Jointer in good condition. Vacuum excess wood chips and sawdust after each use. Wipe off the remaining dust away with a dry cloth.

- Apply a thin coat of paste type wax to the tables and the fence to prevent corrosion and help moving work piece smoothly during operation.
- Keep blades sharp. Blades should be sharpened or replaced in set of two.

KEEP TOOL IN REPAIR

- If power cord is worn, cut or damaged in any way, do not operate the machine.
- Replace any worn, damaged, or missing parts. Use parts listed to order parts.
- Any attempt to repair motor may create a hazard unless repair is done by a qualified service technician.
- Questions? Call the customer service line at 1-847-780-6120.

⚠WARNING

When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause Jointer damage. To ensure safety and reliability, all repairs should be performed by a qualified service technician.

⚠WARNING

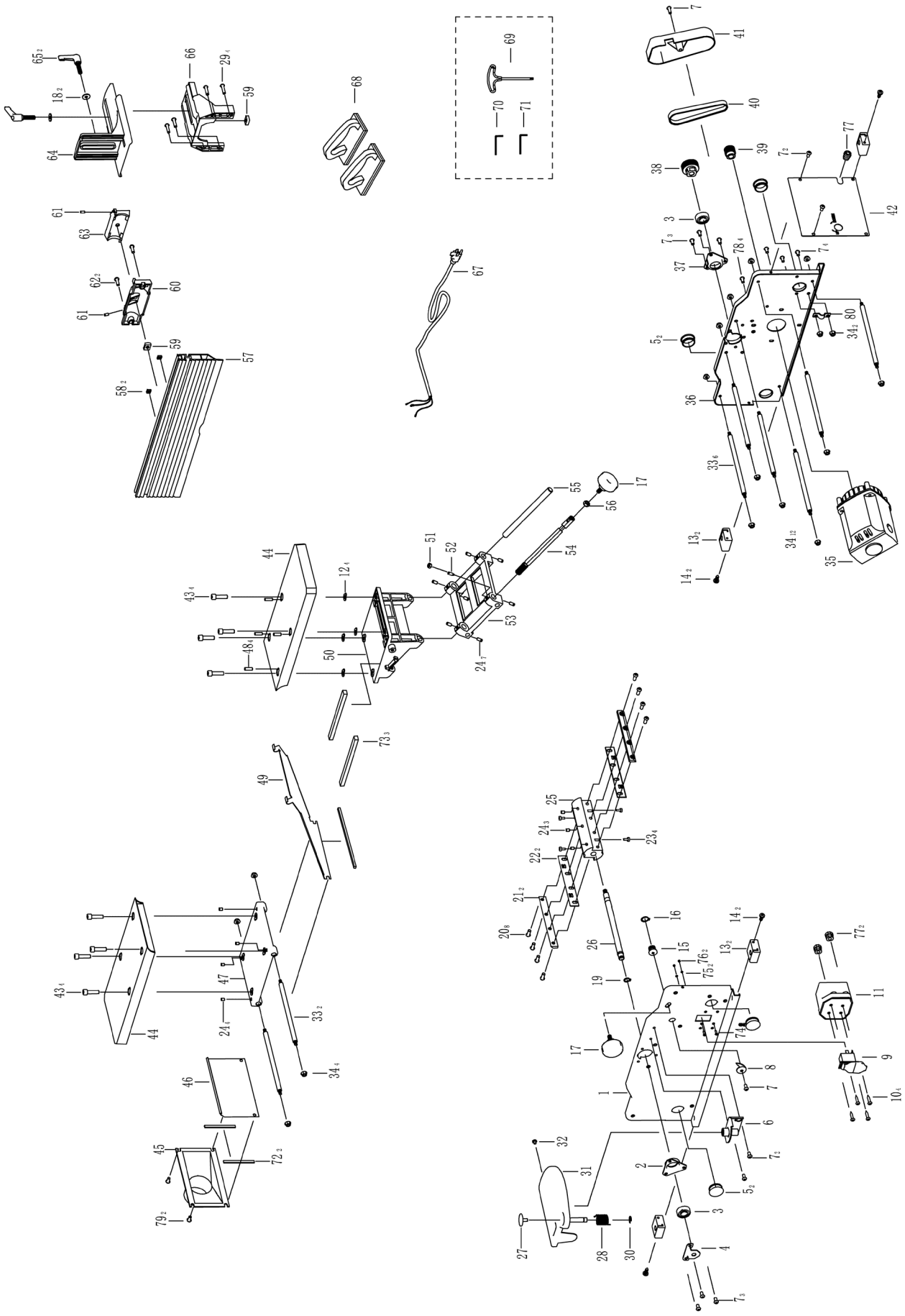
Keep the Jointer dry, clean, and free from oil and grease. Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum based products or any strong solvent to clean the Jointer. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

TROUBLESHOOTING

Follow all safety precautions when servicing unit

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Motor will not start	**1.** Low voltage	Check power supply for proper voltage
	2. Short circuit in line cord or plug	Inspect line cord and plug for faulty insulation or shorted connection
	3. Short circuit in motor	Inspect connection on motor
	4. Open circuit or loose connection in motor	Inspect connection on motor
	5. Incorrect fuses or circuit breakers	Replace with correct fuses or circuit breakers
	6. Defective Switch	Replace Switch
	7. Defective capacitor	Replace capacitor
Motor stalls or fails to reach maximum speed	**1.** Power overload	Reduce workload on the power supply
	2. Low voltage from power supply	Check power supply for proper voltage
	3. Undersized extension cord	Use extension cord adequate in size and/or use a shorter cord
	4. Motor overload	Reduce load on motor
	5. Short circuit or loose connection in motor	Inspect the connection in motor for loose or shorted connection
	6. Incorrect fuses or circuit breakers	Replace with correct fuses or circuit breakers
	7. Wood chips clogged	Inspect chip blower assembly—Remove wood chips
Motor overheats	**1.** Motor overload	Reduce load on motor—Turn off the machine until motor cools down
	2. Excessive dust build-up resulting in decreased air circulation	Remove built up dust
Frequent tripping of circuit breaker	**1.** Motor overload	Reduce load on motor
	2. Inadequate capacity of circuit breaker	Replace with correct circuit breaker
	3. Circuit overload	Reduce circuit load
	4. Dull blades	Replace or sharpen blades
Snipe	**1.** Inadequate support of workpiece	Support long workpiece with additional platform
	2. Dull blades	Replace or sharpen blades
	3. Uneven force on cutterhead	Push workpiece gently during operation
	4. Rollercase is not level with Jointer base	Adjust table and rollercase level properly
	5. Workpiece is not butted properly	Butt, end-to-end, each workpiece as it passes through Jointer
Surface not smooth	**1.** Dull blades	Replace or sharpen blades
	2. Fuzzy grain due to high moisture content in wood	Use dry wood
	3. Torn grain due to blades cutting against grain	Change direction and feed workpiece along grain
	4. The cut is too deep	Decrease depth of cut
Uneven cut	**1.** Feeding workpiece too fast	Feed workpiece slowly
	2. Fence is not perpendicular to Jointer bed	Using a square—Adjust fence and fence bracket properly
	3. Blade height is not uniform	Adjust blade height properly
Inaccurate cut angle	**1.** Wood chips under bottom of fence	Clean wood chips out from under the fence
	2. Fence and fence bracket are not properly adjusted	Adjust blade height properly

14 BJ603 JOINTER PARTS ILLUSTRATION



BJ603 JOINTER COMPONENTS

Key No.	Part No.	Description	Specification	Qty
1	BJ603001	Front Panel		1
2	BJ603002	Front Bearing Base		1
3	BJ603003	Bearing	SH 6201-2Z	2
4	BJ603004	Limiting Plate		1
5	BJ603005	Rubber Stopper		4
6	BJ603006	Protective Plate Support Base		1
7	BJ603007	Hexagon Socket Head Bolt	M6×12	16
8	BJ603008	Pointer		1
9	BJ603009	Switch		1
10	BJ603010	Cross Recessed Pan Head Tapping Screw	ST4.8×16	4
11	BJ603011	Switch Box		1
12	BJ603012	Adjusted washer		4
13	BJ603013	Foot Pad		4
14	BJ603014	Screw	ST5.5*19	4
15	BJ603015	Gear Shaft		1
16	BJ603016	Retaining Ring	Φ16	1
17	BJ603017	Locking Knob		2
18	BJ603018	Washer	Φ8	2
19	BJ603019	Retaining Ring	Φ12	1
20	BJ603020	Blade fixed Bolt	1/4“-20	8
21	BJ603021	Blade fixed Plate		2
22	BJ603022	Blade		2
23	BJ603023	Blade Adjusted Bolt		4
24	BJ603024	Hexagon Socket Set Screw	6×10	14
25	BJ603025	Cutter Head		1
26	BJ603026	Core Shaft		1
27	BJ603027	Cap Plug		1
28	BJ603028	Torsion Spring		1
29	BJ603029	Hexagon Socket Head Screw	M6×16	4
30	BJ603030	Retaining Ring	Φ10	1
31	BJ603031	Protective Cover		1
32	BJ603032	Buffer Nail		1
33	BJ603033	Long Shaft		8
34	BJ603034	Flange Nut	M6	16
35	BJ603035	Motor Assembly		1
36	BJ603036	Rear Panel		1
37	BJ603037	Rear Bearing Base		1
38	BJ603038	Long Pulley		1
39	BJ603039	Short Pulley		1
40	BJ603040	Belt	5PJ-305	1
41	BJ603041	Belt Cover		1
42	BJ603042	Right Panel		1
43	BJ603043	Hexagon Socket Head Screw	M8×30	8
44	BJ603044	Table		2
45	BJ603045	Dust Pipe		1
46	BJ603046	Left Panel		1

Key No.	Part No.	Description	Specification	Qty
47	BJ603047	Table Connecting Base		1
48	BJ603048	Hex Socket Set Screw	6×6	4
49	BJ603049	Dust Guide		1
50	BJ603050	Table Carriage		1
51	BJ603051	Hex nut	M6	1
52	BJ603052	Screw	M6x16	1
53	BJ603053	Mobile Base		1
54	BJ603054	Lead Screw		1
55	BJ603055	Slider		1
56	BJ603056	Hex nut	M8	1
57	BJ603057	Fence		1
58	BJ603058	Square Nut	M6	2
59	BJ603059	Adjustable Square Nut	M8	2
60	BJ603060	Fence Connecting Base		1
61	BJ603061	Hex Socket Set Screws	5×10	2
62	BJ603062	Hexagon Socket Head Bolt	M6×18	2
63	BJ603063	Swivel Base		1
64	BJ603064	Fence Bracket		1
65	BJ603065	Lock Handle	M8x40	2
66	BJ603066	Fence Support		1
67	BJ603067	Power Cord		1
68	BJ603068	Push Block		2
69	BJ603069	T-shaped Torx Wrench	T30	1
70	BJ603070	Allen Wrench	M2.5×56×18	1
71	BJ603071	Allen Wrench	4mm 25×105	1
72	BJ603072	Sponge strip-1	180×8×5	2
73	BJ603073	Sponge strip-2	240×15×14t	2
74	BJ603074	Cross Recessed Pan Head Screw	4×10	2
75	BJ603075	External Gear Washer	Φ4	2
76	BJ603076	Hex Nut	M4	2
77	BJ603077	Strain Relief	7P-2	3
78	BJ603078	Hexagon Socket Head Screw	M5x16	4
79	BJ603079	Cross Recessed Pan Head Screw	M6X12	2
80	BJ603080	Wire Press Buckle	30x10	1

WARRANTY

Thank you for investing in a ***POWERTEC Pro™*** power tool. This product has been designed and manufactured to meet high quality standards and is guaranteed for domestic use against defects in workmanship or material for a period of 12 months from the date of purchase. This guarantee does not affect your statutory rights.

SOUTHERN TECHNOLOGIES LLC. BENCH TOP AND STATIONARY POWER TOOL LIMITED 1 YEAR WARRANTY AND 30-DAY SATISFACTION GUARANTEE POLICY

POWERTEC Pro products are designed and manufactured by **Southern Technologies LLC.** All warranty communications should be directed to **Southern Technologies LLC** by calling 847-780-6120 (toll free), 9 AM to 5 PM, Monday through Friday, US Pacific Time.

30-DAY SATISFACTION GUARANTEE POLICY

During the first 30 days after the date of purchase, if you are dissatisfied with the performance of this ***POWERTEC Pro*** tool for any reason, you may return the tool to the retailer from which it was purchased for a full refund or exchange. You must present proof of purchase and return all original equipment packaged with the original product. The replacement tool will be covered by the limited warranty for the balance of the one year warranty period.

LIMITED ONE YEAR WARRANTY

This warranty covers all defects in workmanship or materials in this ***POWERTEC Pro*** tool for a one year period from the date of purchase. This warranty is specific to this tool. **Southern Technologies, LLC** reserves the right to repair or replace the defective tool, at its discretion.

HOW TO OBTAIN SERVICE

To obtain service for this ***POWERTEC Pro*** tool you must return it, freight prepaid, to ***POWERTEC Pro***. You may call (toll free) 847-780-6120 for more information. When requesting warranty service, you must present the proof of purchase documentation, which includes a date of purchase. ***POWERTEC Pro*** will either repair or replace any defective part, at our option at no charge to you. The repaired or replacement unit will be covered by the same limited warranty for the balance of one year warranty period.

WHAT IS NOT COVERED

This warranty applies to the original purchaser at retailer and may not be transferred.
This warranty does not cover consumable items such as saw blades, knives, belts, discs, cooling blocks and sleeves.
This warranty does not cover required service and part replacement resulting from normal wear and tear, including accessory wear.
This warranty does not cover any malfunction, failure or defect resulting from:
1) misuse, abuse, neglect and mishandling not in accordance with the owner's manual.
2) damage due to accidents, natural disasters, power outage, or power overload.
3) commercial or rental use.
4) alteration, modification or repair performed by persons not recommended by ***POWERTEC Pro***.

DISCLAIMER

To the extent permitted by applicable law, all implied warranties, including warranties of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, are disclaimed. Any implied warranties, that cannot be disclaimed under state law are limited to one year from the date of purchase. **Southern Technologies LLC**. is not responsible for direct, indirect, incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Southern Technologies LLC., makes no warranties, representations, or promises as to the quality or performance of its power tools other than those specifically stated in this warranty.

POWERTEC PRO™

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