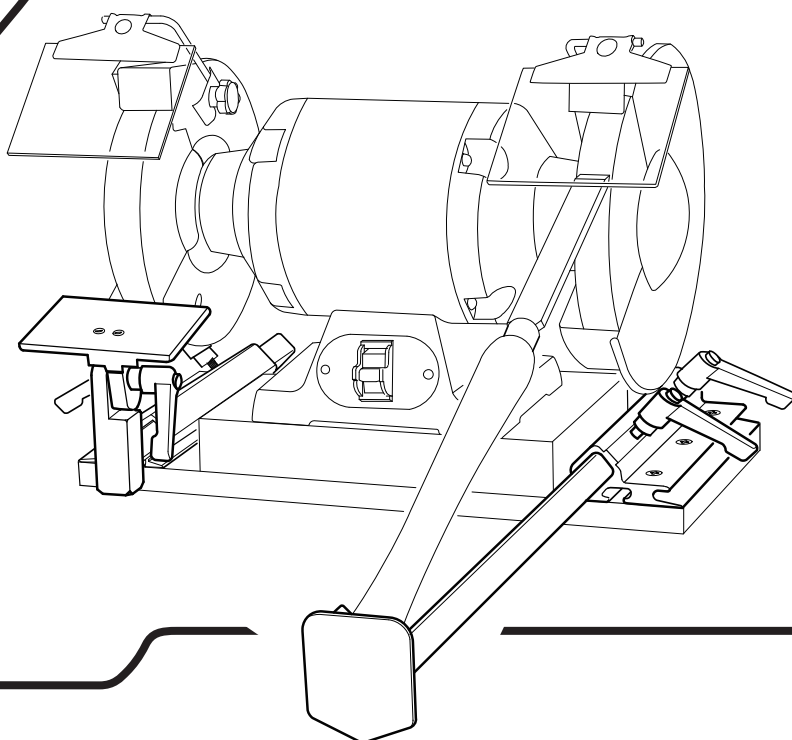


Owner's Manual

POWERTEC®

Bench Grinder Sharpening Jig Kit



Visit us on the web at www.southerntechllc.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.

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SAFETY

WARNING

For your own safety, read and understand all warnings and operating instructions in this manual and in the grinder manual before using any tool or equipment.

WARNING

Some dust created by operation of 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.

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.



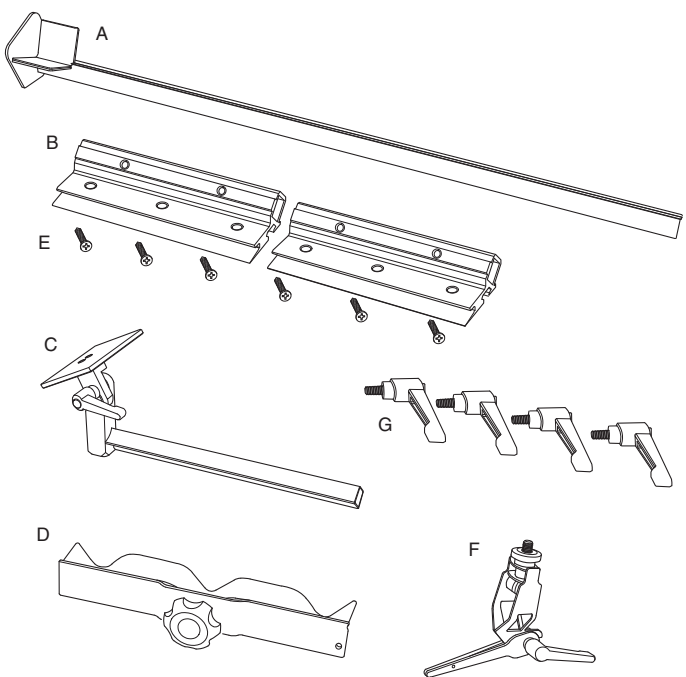
ASSEMBLY

UNPACKING

Refer to Figure 1.
Check for shipping damage. Check immediately whether all parts and accessories are included.

This Bench Grinder Sharpening Jig Kit is to be used with a bench grinder.
NOTE: Most Grinders work with the V Arm, Skew jig as long as the 6 1/4 -6 1/2 measurement shown in Figure 2 is achieved.

Figure 1



ITEM	DESCRIPTION	QUANTITY
A	V Arm	1
B	Bases	2
C	Platform Assembly	1
D	Skew Jig	1
E	Screws (mounting hardware)	4
F	Versa-Grind	1
G	Jig Locking Levers	4

⚠ WARNING

Do not use the Bench Grinder Sharpening Jig Kit until it is completely assembled and you have read and understood the entire operating manuals.

TOOLS NEEDED

The following tools (not included) are needed to assemble and adjust the Bench Grinder Sharpening Jig Kit:

1 Cross Head Screwdriver

MOUNTING BASES

Refer to Figure 2

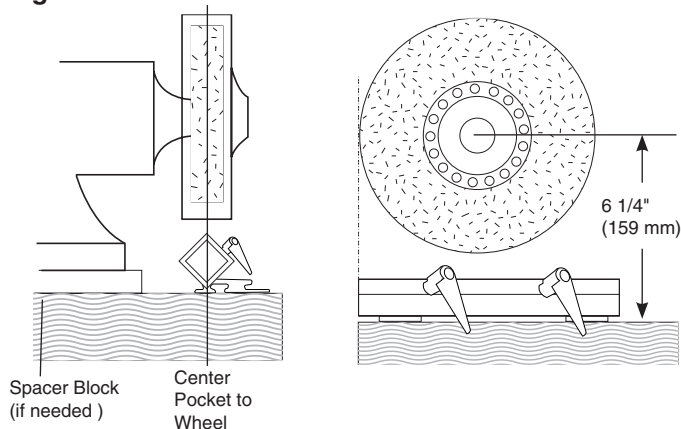
For best results mount the grinding jig bases onto a board or bench. Mount one base under each grinding wheel.

- Center the base under the grinding wheel with the front of the base flush with the wheel.
- Slide the V Arm into the base and ensure the center of the V Arm pocket aligns with center of grinding wheel.
- Use screws (supplied) to secure the base to board or bench.
- Insert jig locking levers into holes in base, Do not tighten securely.

NOTE:

- Remove the grinder rubber feet and install them underneath the mounting board, if required.
- The 6 1/4" - 6 1/2" (159–165 mm) minimum dimension shown in Figure 2 must be achieved to prevent base from interfering with the wheel guards. Add a spacer block or shims under the grinder if needed.

Figure 2



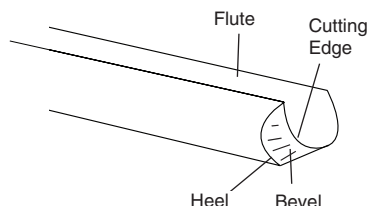
OPERATION



TOOL TERMINOLOGY

Refer to Figure 3

Figure 3



V ARM SET UP

Refer to Figure 4

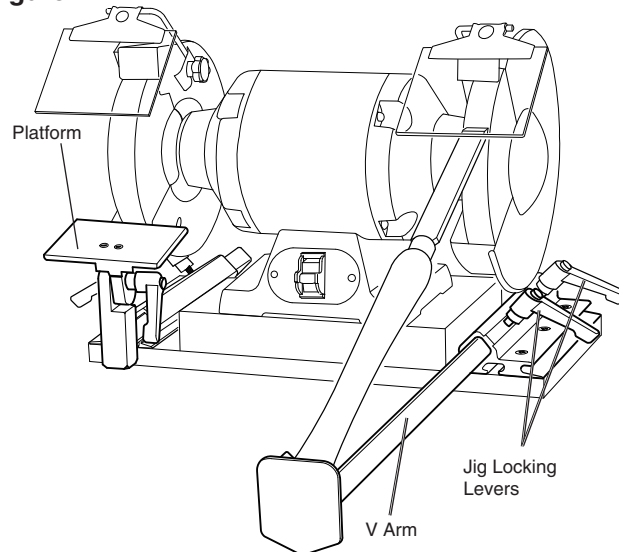
The V Arm is used to sharpen bowl-gouges, roughing gouges and skews.

- Turn the grinder off.
- Slide the V Arm into the base.
- Rest the handle of the tool in the V Arm pocket.
- Slide the V Arm in and out until the existing bevel meets the wheel. Lock the V Arm in place.
- Lift the tool off the wheel and turn the grinder on.
- Gently touch the tool to the wheel. Check the position of the V Arm:
- Lift the tool off the wheel and check the grind marks on the bevel.
 - If the grind marks are even on the whole bevel, then the V Arm is adjusted properly.

- If the grind marks are just on the cutting edge, move the V Arm in.
- If the grind marks are on the heel of the tool, away from the cutting edge, move the V Arm out.

TIP: Coloring the existing bevel with a black felt tip marker allows the new grinding marks to be seen.

Figure 4





SHARPENING

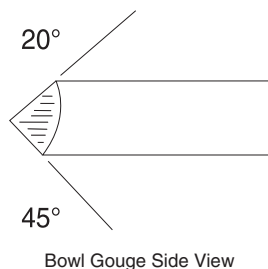
Bowl Gouge

Refer to Figure 5

- Set up V Arm following the **V Arm Set Up** instructions.
- Touch the bevel to the wheel and rotate the tool back and forth. The further you roll the tool, the further back the corners will be ground.

NOTE: A good general purpose bevel angle is 45 degrees. Most turners will grind the corners back 10 to 20 degrees.

Figure 5



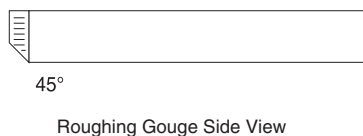
Roughing Gouge

Refer to Figure 6

- Set up V Arm following the **V Arm Set Up** instructions.
- Touch the bevel to the wheel and rotate the tool back and forth. Grinding the ears back 20 degrees, the end of the tool should remain square.

NOTE: Tools grind away at different speeds. Pay attention to the corners during grinding.

Figure 6



Chisels

- Set up V Arm following the **V Arm Set Up** instructions.
- Touch the chisel bevel to the wheel and grind the chisel with small sideways motions and light cutting pressure.

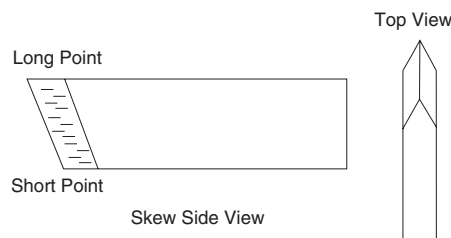
NOTE: Most chisels are carbon steel which softens and turns blue with heat, cool these often.

Skews

Refer to Figure 7

- Set up V Arm following the **V Arm Set Up** instructions.
- Touch the bevel to the wheel. Using light pressure, slide the tool back and forth with a small sideways motion.
- Turn the tool over often sharpening both sides of the skew.

Figure 7



PLATFORM OPERATION

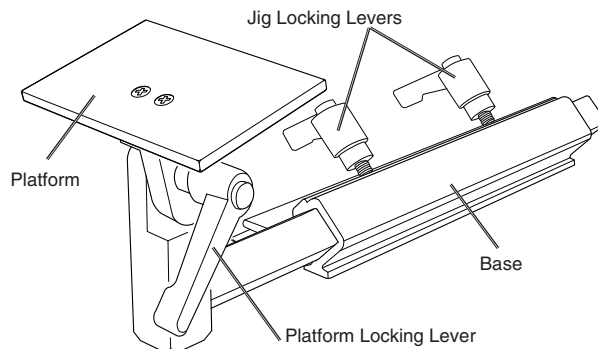
Refer to Figure 8

The platform can be assembled to the right or left side of the grinder.

- Turn the grinder off.
- Slide the platform into the base.
- Lock the platform in place.
- Release the platform locking lever.
- Place the tool onto the platform and adjust the platform until the existing bevel meets the wheel. Lock the platform in place.
- Turn the grinder on and gently touch the tool to the wheel.

TIP: Coloring the existing bevel with a black felt tip marker allows the new grinding marks to be seen.

Figure 8



SKEW JIG OPERATION

Refer to Figure 8 and 9

The skew jig saves time when sharpening skews. Using the skew increases safety, creates a flat bevel, bevel and cutting edge will be parallel, creates the same bevel every time and there is a minimal material waste.

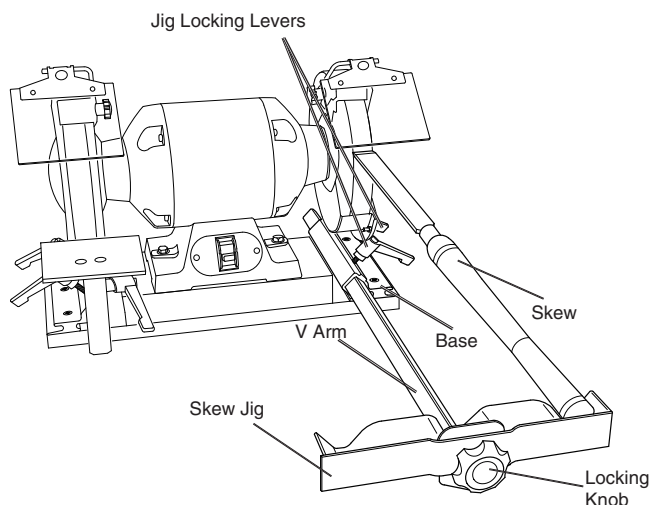
- Turn the grinder off.
- With V Arm is assembled, slide the skew jig onto the V arm pocket and secure with locking knob.
- Rest the handle of the tool in one of the skew jig pocket, depending on desired angle.
- Slide the V Arm in and out until the existing bevel meets the wheel.
- Lock the V Arm in place.
- Lift tool from wheel and turn the grinder on.
- Lift the tool off the wheel and check the grind marks on the bevel.
 - If the grind marks are even on the whole bevel, then the V Arm is adjusted properly.
 - If the grind marks are just on the cutting edge, move the V Arm in.
 - If the grind marks are on the heel of the tool, away from the cutting edge, move the V Arm out.

TIP: Coloring the existing bevel with a black felt tip marker allows the new grinding marks to be seen.

- Touch the bevel to the wheel. Using light pressure, slide the tool back and forth with a small sideway motion.
- Turn the tool over often sharpening both sides of the skew.

TIP: Applying pressure to the side with the short point creates more skew. Applying pressure to the long point reduces skew.

Figure 9



VERSA-GRIND OPERATION

Refer to Figure 10

Consistently achieve the fingernail grind, bowl gouge grind and side or Irish grind by using the Versa-Grind attachment.

- Turn the grinder off.
- Insert the tool into the Versa-Grind. Tighten locking knob.

NOTE: The tool should protrude 1-1/2" (38.1 mm) to create the best results. This measurement should be the same each time the tool is ground. Use a wood block with a hole drilled to the desired depth to save time.

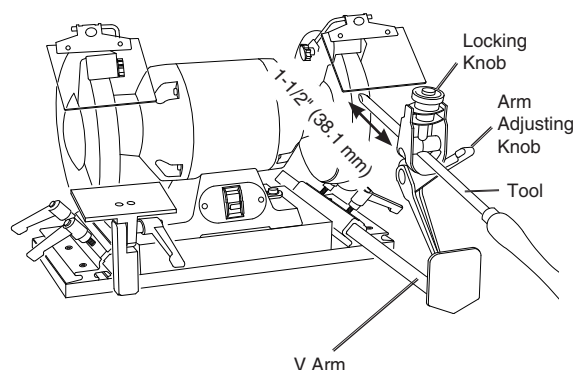
- Adjust the Versa-Grind arm to desired angle.

NOTE: Adjusting the arm with the arm adjustment knob will alter the angle to be ground.

- With the V Arm assembled, rest the arm of the Versa-Grind onto the V arm pocket.
- Slide the V Arm in and out until the desired angle meets the wheel.
- Lock the V Arm in place.
- Lift tool from wheel and turn the grinder on.
- With one hand ensure the the Versa-Grind arm rest in the bottom of the V arm, use the other hand to control the sweep of the Versa-Grind. Let the weight of the tool do the work.

NOTE: Frequently dip the tool in water to keep it cool.

Figure 10



WARRANTY

Thank you for investing in a **POWERTEC** power tool. These products have been designed and manufactured to meet high quality standards and are 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 products are designed and manufactured by **Southern Technologies LLC**. All warranty communications should be directed to **Southern Technologies LLC**. 206 Terrace Dr. Mundelein, IL 60060, Attn: **POWERTEC** technical service; or by calling 1-877-393-7121 (toll free), 9 AM to 5 PM, Monday through Friday, US Central 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** 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** 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** tool you must return it, freight prepaid, to an authorized **POWERTEC** service center for bench top and stationary power tools. You may obtain the location of the authorized service center nearest you by calling (toll free) 1-877-393-7121 or by logging on to the **POWERTEC** website at **www.southerntechllc.com**. When requesting warranty service, you must present the proof of purchase documentation, which includes a date of purchase. The authorized service center 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 applied 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 by other than an authorized service center for **POWERTEC** product.

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.

NOTE

POWERTEC

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