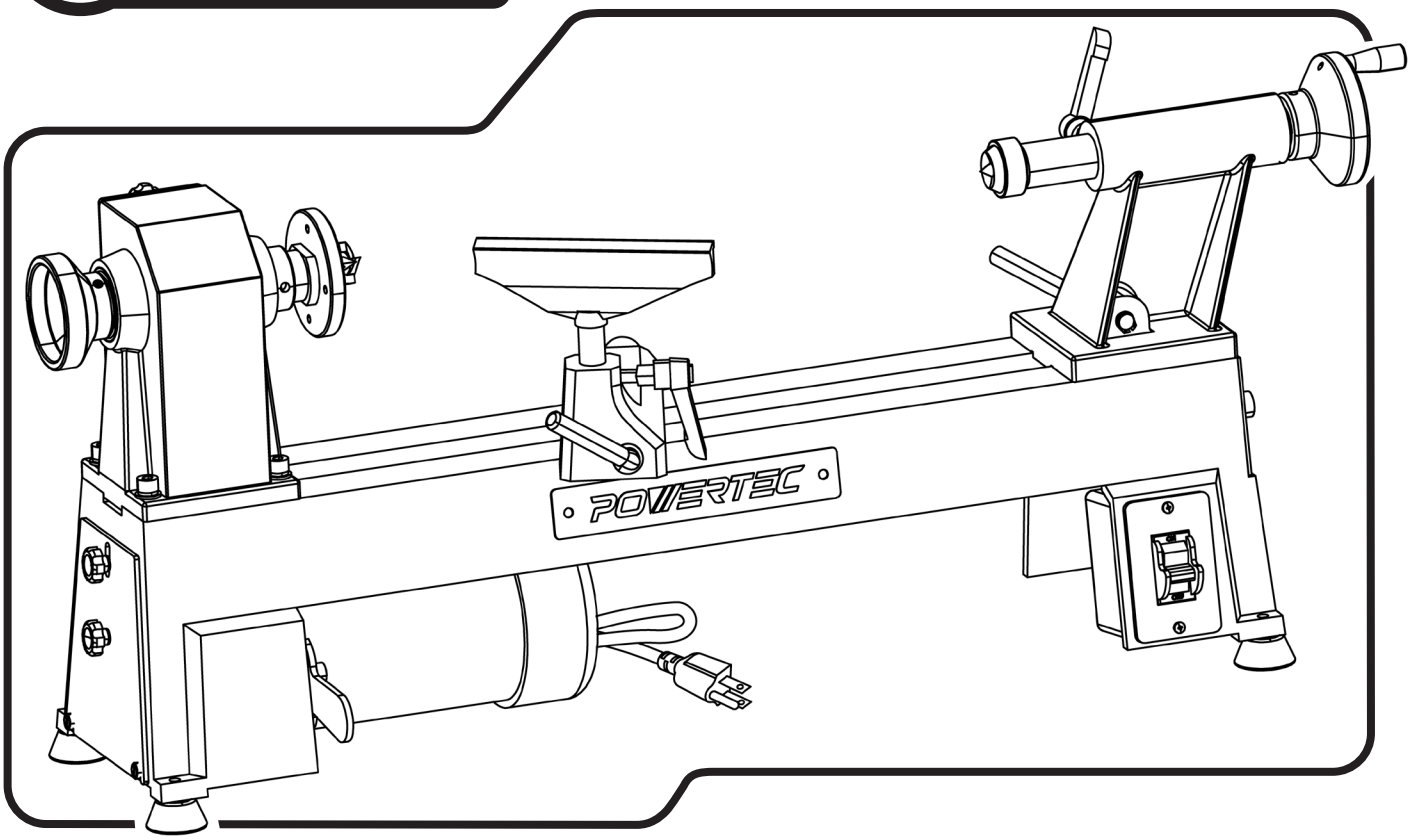
Model No. LT1018

Owner's Manual

POWERTEC®

Mini Wood Lathe

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.

25-0313

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PRODUCT SPECIFICATIONS

Power Supply	120V, 1PH, 60Hz
Connection Type	Cord & Plug
Cord Length	6.5 ft
Cord Gauge	18 AWG
Motor	370W (1/2 HP)
Phase	Single-Phase
Tool Rest Width	6''
Tool Rest Post Diameter	5/8''
Swing Over Bed	10"
Distance Between Centers	18"
Maximum Turning Diameter	10"
Speed Range	760 ~ 3200 rpm
	760 rpm, 1100 rpm, 1600 rpm, 2200 rpm, 3200 rpm
Primary Material	Solid Cast Iron
Length x Width x Height	36" x 10.5" x 15"
Weight	68 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 power sanding, sawing, grinding, drilling and other construction activities can expose you to 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

NOTE: *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. 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.
- Wear safety shoes with non-slip soles.
- Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are NOT safety glasses.
- 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 that cause drowsiness.

WORK AREA PREPARATION

- Keep work area clean. Cluttered work areas invite accidents.
- Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
- Work area should be properly lit.
- Proper electrical receptacle should be available for tool. Three-prong plug should be plugged directly into properly grounded, three-prong receptacle.
- Extension cords should have a grounding prong and the three wires of the extension cord should be of the correct gauge.
- Keep visitors at a safe distance from work area.
- Keep children out of the work area. Ensure your work shop is child-proof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

TOOL MAINTENANCE

- Always unplug tool prior to inspection.
- Consult manual for specific maintaining and adjusting procedures.
- Keep tool lubricated and clean for a safe operation.
- Remove adjusting tools. Form habit of checking to see adjusting tools or accessories are removed before switching tool on.
- Keep all parts in working order. Check to determine that guard or other parts will operate properly and perform their intended function.
- Check for damaged parts. Check for alignment of moving parts, binding, breakage, mounting and any other condition that may affect tool's operation.
- A guard or any other part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs.

TOOL OPERATION

- Avoid accidental start-up. Make sure that the tool is in the "OFF" position before plugging in.
- Use the right tool for your job. Do not force your 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 can make you fall into a working machine, causing injury.
- Never stand on tool. Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
- Know your tool. Learn the tool's operation, application and specific limitations before using it.
- Use a proper extension cord of the correct gauge. The extension cord should have a grounding prong, and should be in good condition.
- 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 SOURCE 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.

POWER SOURCE

⚠ WARNING

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

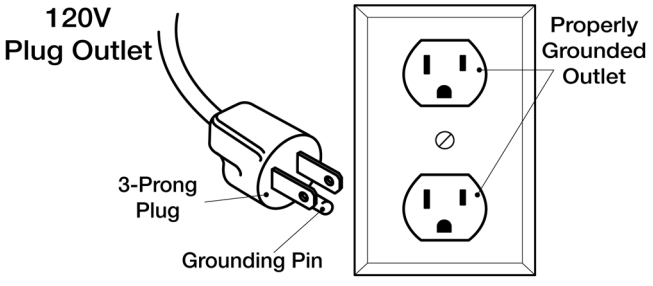
- The machine is wired for 120 Volts, 60 Hz alternating current. Before connecting the machine to the power source, make sure the Switch is in the **OFF** position, and Safety KEY removed.
- Running the unit on voltages which are not within range may cause overheating and motor burn-out. Heavy loads 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

- In the event of a malfunction or breakdown, grounding provides the path of least resistance for electric current to reduce the risk of electric shock. This tools is equipped with an electric cord that 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 in the outlet, have the proper outlet installed by a qualified electrician.
- Improper connection of the equipment grounding conductor can result in risk of electric shock. The conductor with the green insulation (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 equipment grounding conductor to a live terminal.
- Check with a qualified electrician or service person if you do not completely understand the grounding instructions, or if you are not sure the tool is properly grounded.
- Use only three wire extension cords that have 3-prong grounding type plugs and 3-hole receptacles that accept the tool's plug as shown below. Repair or replace damaged or worn cord immediately.

⚠ CAUTION

In all cases, make certain the receptacle in question is properly grounded. If you are not sure, have a certified electrician check the receptacle.



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.
- NEVER use a 3-to-2 prong adapter.
- 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 machine. 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*	

LATHE SPECIFIC SAFETY RULES

⚠ WARNING

Do not operate the Mini Wood Lathe until it is completely assembled and installed according to the manufacturer's specifications.

⚠ WARNING

For your own safety, read the entire operating manual and safety instructions before operating the Mini Wood Lathe.

- Tighten all locks before operating.
- Do not mount a split workpiece.
- Use the lowest speed when starting a new workpiece.
- Read the warning label attached to the **Mini Wood Lathe**.
- When turning a workpiece, always rough the wood to round form at slow speed. If the Lathe is run so fast that it vibrates, there is a risk that the workpiece will be thrown or the tool jerked from your hands.
- Always rotate the workpiece by hand before turning on the motor. If the workpiece strikes the tool rest, it could split and be thrown out of the **Mini Wood Lathe**.
- Do not allow the turning tools to bite into the wood. The wood could split or be thrown from the **Mini Wood Lathe**.
- Always position the tool rest above the center line of the **Mini Wood Lathe** when shaping a piece of stock.
- Do not operate the Lathe if it is rotating in the wrong direction. Workpiece must always be rotating toward user.
- Always close and secure both the Side Belt Access Cover and the Rear Belt Access Cover before turning on the **Mini Wood Lathe**. This minimizes the vibrations while the piece is being turned.
- Always fasten the workpiece securely to the faceplate. Failure to do so could result in the workpiece being thrown from the **Mini Wood Lathe**.
- Position hands so that they will not slip onto the workpiece.
- Remove all loose knots in the stock before mounting it between the centers or on the faceplate.
- Never leave tool running unattended. Turn the power off. Don't leave the tool until it comes to a complete stop.
- Hang all turning tools on the wall beyond the tailstock end of the **Mini Wood Lathe**. Do not lay them on the bench so that you must reach over the revolving workpiece to select them.
- Keep a firm hold and remain in control of the cutting tool at all times. Take special precautions when shaping a section of stock in which knots or voids are found.
- Always make safety come first.
- Complete the hand-sanding of all work pieces before you remove them from the **Mini Wood Lathe**.
- Never stand on the tool. Serious injury could occur.
- Turn Switch OFF—disconnect power when Lathe is not in use.
- Keep **Mini Wood Lathe** maintained. Follow maintenance instructions.

CONTENTS

UNPACKING

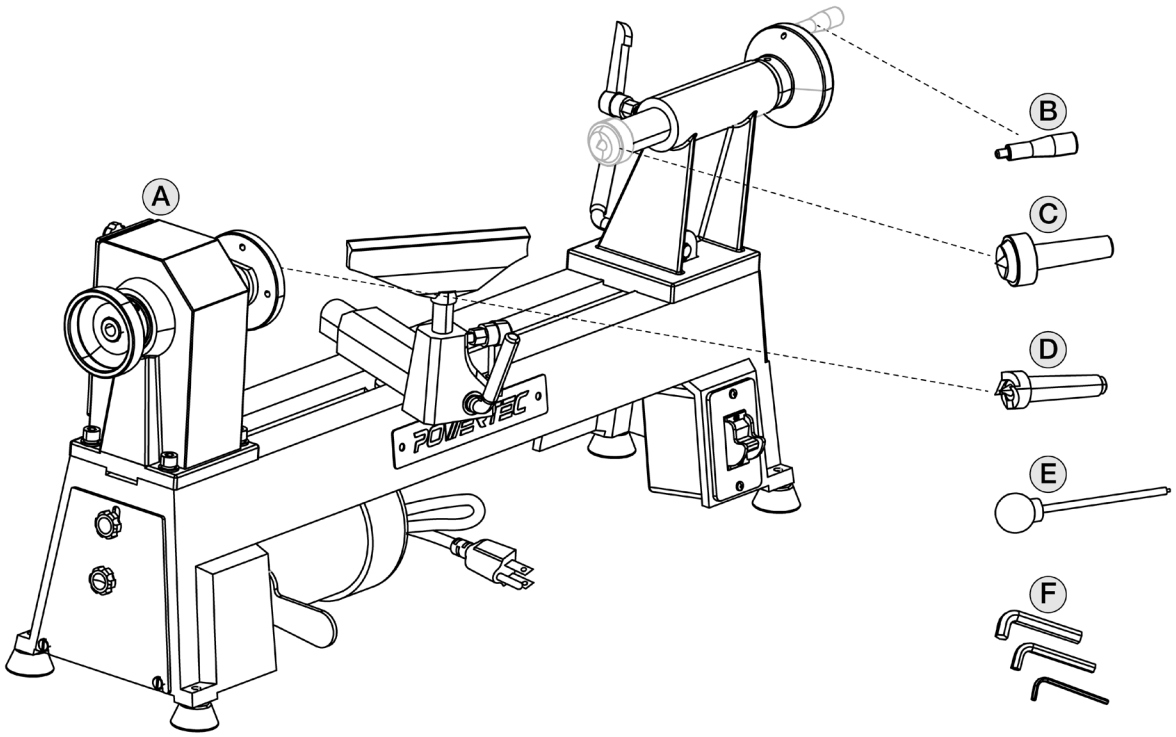
Check for shipping damage. Check immediately whether all parts and accessories are included. Please contact the customer service center at 1-847-780-6120.

• This Mini Wood Lathe comes mostly assembled. It requires some additional assembly, installation, and adjustment before use.

Do not use the machine until it is completely assembled.

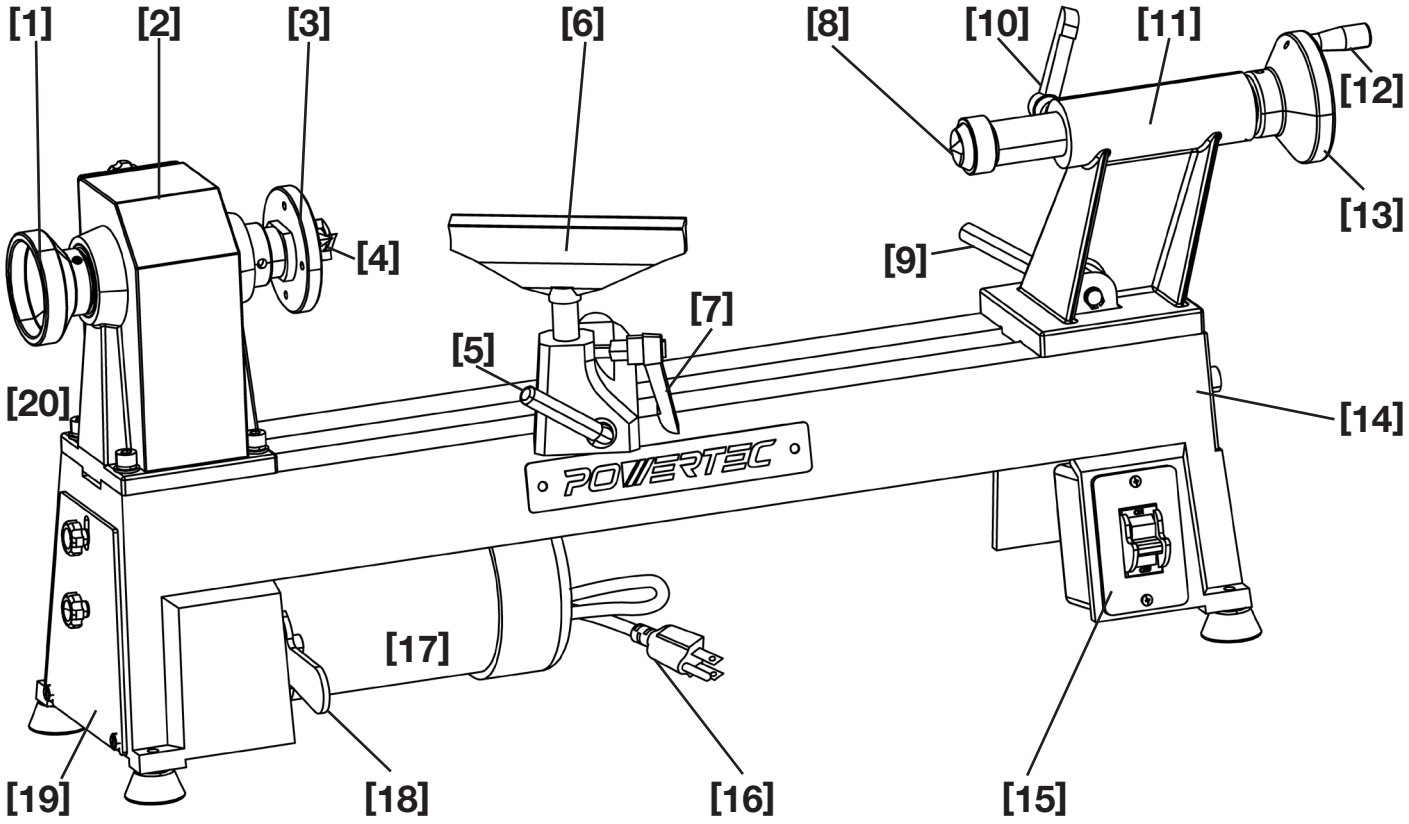
ITEM	DESCRIPTION	QTY
A	Mini Wood Lathe	1
B	Quill Wheel Handle	1
C	Live Center	1
D	Spur Center	1
E	Knockout Rod	1
F	Hex Wrenches 3mm, 6mm, 8mm	1 ea.

Figure 1 SOME ASSEMBLY REQUIRED



MINI WOOD LATHE OPERATIONAL FEATURES

Figure 2



COMPONENT DESCRIPTIONS

[1] Headstock Wheel

[2] Headstock: The Headstock fixes on the left-hand side of the Lathe bed. It helps to rotate different workpieces at different speeds with the help of a chuck. The **spindle**, chuck, gears, gear drive, speed, and feed selector are present inside the headstock casting. The headstock also contains the pulleys and belts that control the speed of the **spindle**.

[3] Faceplate

[4] Spur Center: The chuck is a work-holding device utilized in mounting workpieces having distinct diameters. It particularly holds those with a short length and large diameter and those with irregular shapes.

[5] Lock Lever

[6] Tool Rest: The tool rest is essential for safety and accuracy when working with a wood Lathe machine. It helps to keep your hands and fingers away from the spinning wooden object and allows you to create precise cuts and shapes.

[7] Tool Rest Lock Lever

[8] Live Center: The live center is the machine tool accessory used on a Lathe to support longer or heavier workpieces more securely, preventing unwanted friction and wobbling.

[9] Tailstock Lock Lever

[10] Quil Lock Lever

[11] Tailstock: The Tailstock fixes on the right-hand side of the Lathe bed. It gives support to the workpiece during the machining operation and holds a tool during drilling, tapping, reaming, etc. **It also contains a quill that can be extended or retracted to adjust the length of the object you are working on.**

[12] Quill Handle

[13] Quill Hand-wheel: The quill is an extendable part of the **spindle** that is used to machine areas that are difficult to reach. The **spindle** is the Z axis, and the quill is the W axis.

[14] Lathe Bed: The bed is the horizontal beam that connects the headstock and tailstock. It provides support and stability to the machine and allows you to mount the different tools and accessories.

[15] Power Switch (ON/OFF)

[16] Power Cord 18 AWG

[17] Motor: The motor is the power source of the Lathe machine. When the motor turns ON, it transfers the rotating motion through a belt drive, chain drive, or gear drive to the headstock **spindle**.

[18] Belt Tension Lever and Lever Handle (not visible)

[19] Side Belt Cover

[20] Rear Belt Cover (on back of Headstock)

INSTALL SPUR CENTER

DISCONNECT MACHINE FROM POWER

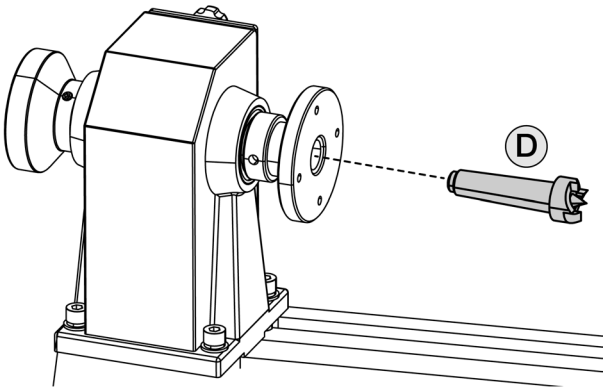
1. Make sure surface of center and **spindle** are free of debris and oily substances before inserting center.

CAUTION

The Spur Center is sharp. Wear appropriate gloves when handling the Spur Center.

2. Insert tapered end of Spur Center (D) into **spindle**, and push it in quickly and firmly.
3. Check that center is securely installed by giving it a quick tug. (A properly installed center will not pull out by hand.)

Figure 3

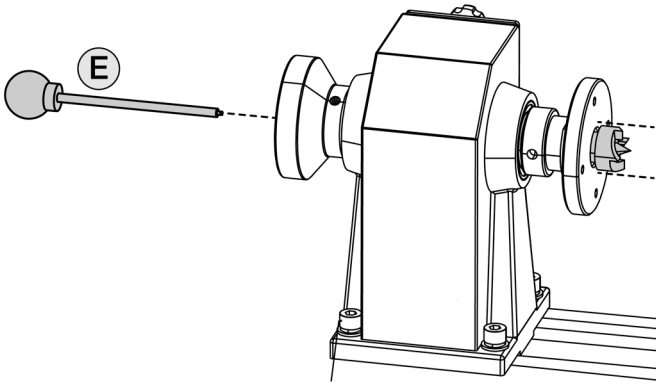


REMOVE SPUR CENTER

DISCONNECT MACHINE FROM POWER

1. Insert knockout rod into outboard end of **spindle**.
2. Use a shop rag or wear a glove to catch center and gently tap Knockout Rod (E) until spur center is disengaged from spindle.

Figure 4



INSTALL LIVE CENTER IN TAILSTOCK

DISCONNECT MACHINE FROM POWER

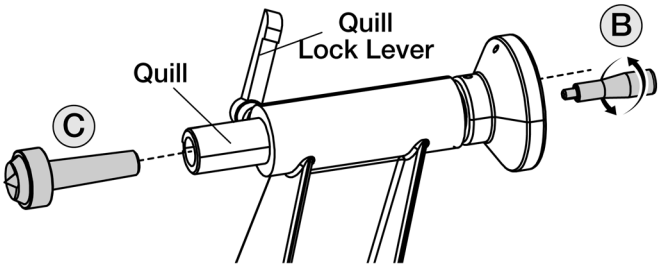
1. Loosen Quill Lock Lever (if locked) approximately a half turn.
2. After installing Quill Handle (B), rotate quill handwheel clockwise until quill protrudes about 3⁄4".
3. **Figure 5.** Insert Live Center (C) and push in firmly.
4. Tighten Quill lock lever.

REMOVE LIVE CENTER FROM TAILSTOCK

DISCONNECT MACHINE FROM POWER

1. Loosen Quill Lock Lever (if locked) about half a turn.
2. Turn quill handwheel counterclockwise until tailstock quill fully retracts, causing live center to be forced out of quill.

Figure 5



WARNING

Tailstock quill must always be locked during Lathe operation. Workpiece can be thrown from Lathe if this step is not observed. Failure to follow warnings may result in personal injury.

REMOVE FACEPLATE

DISCONNECT MACHINE FROM POWER

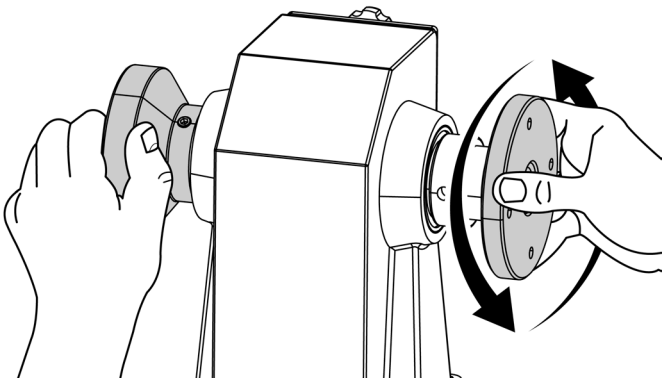
Hold headstock handwheel securely while turning faceplate **counterclockwise** until it is removed. If the spur center is installed, it will be removed during this process.

INSTALL FACEPLATE

DISCONNECT MACHINE FROM POWER

Thread faceplate onto **spindle** shaft until secure against shoulder on **spindle** shaft.

Figure 6

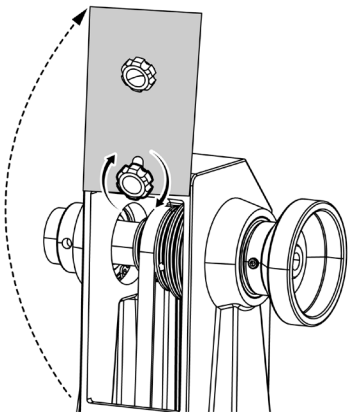


OPERATION

TENSIONING THE DRIVE BELT

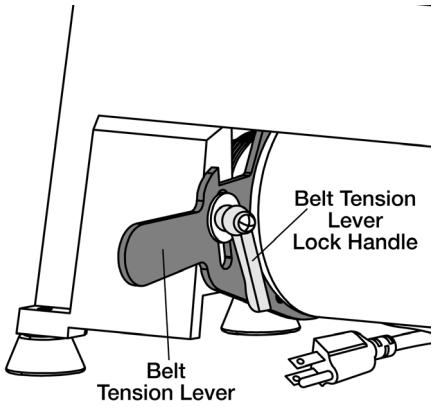
DISCONNECT MACHINE FROM POWER

Figure 7



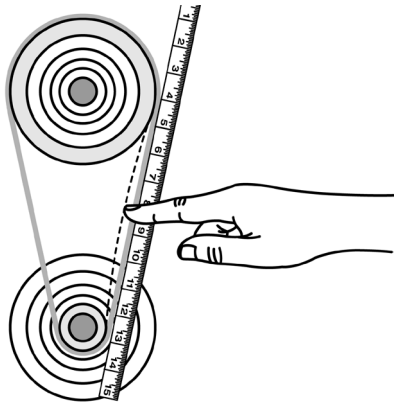
1. Loosen moveable knob on side access cover and rotate cover out of the way. Tighten knob to hold in place.
2. Follow the same process to swing the rear belt cover up and secure it to obtain access to the Drive Pulley.

Figure 8



3. Loosen the Belt Tension Lever Lock Handle and Lift the Belt Tension Lever allowing slack to tension Drive Belt.
4. Press Belt Tension Lever down to adjust tension. Tighten using the Lever Lock Handle to secure setting.

Figure 9



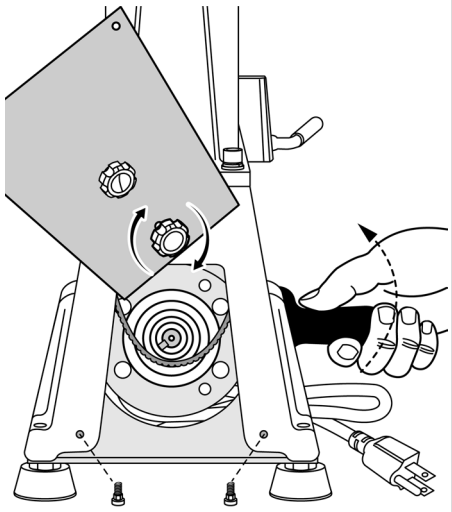
5. Lay a straight edge along pulley belt.
6. Press belt to check tension. Belt is properly tensioned when there is approximately 1⁄2" deflection.
7. Re-install rear access cover.

REPLACING THE DRIVE BELT

DISCONNECT MACHINE FROM POWER

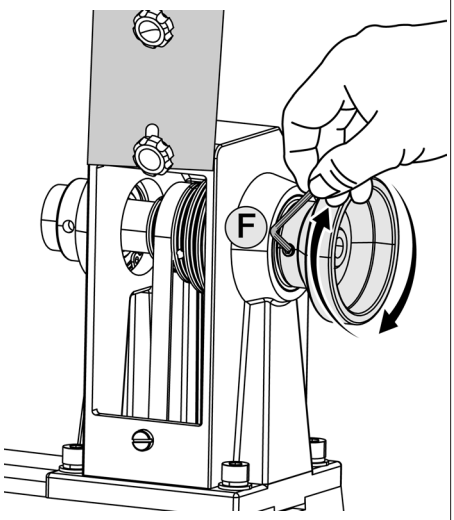
Always close and secure both the Side Belt Access Cover and the Rear Belt Access Cover before turning on the Lathe.

Figure 10



1. **See Figure 10.** Loosen movable knob. Rotate Side Belt Cover up, under Headstock Wheel—tighten movable knob to secure cover in place providing access to Motor Pulley.
2. Follow same process to rotate Rear Belt Cover up—tighten movable knob to secure cover in place providing access to Drive Pulley.
3. Loosen Belt Tension Lever Lock Handle and lift Belt Tension Lever to allow slack on Drive Belt.
4. **See Figure 11.** Use 3mm Hex Wrench (F) to loosen set screws on Headstock Wheel—turn clockwise to un-thread and remove.
5. **See Figure 12**. Using a rubber or wooden mallet with a wooden block against end of Headstock Spindle, carefully drive it toward center of Lathe Bed creating a gap between it and Headstock housing allowing removal of Drive Belt. If needed, loosen Pulley Set Screw allowing Headstock Spindle to shift.

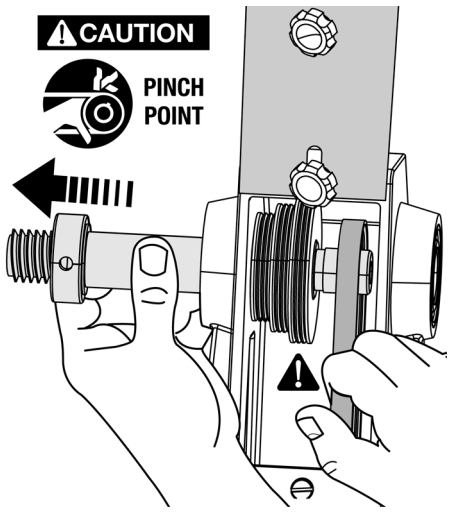
Figure 11



6. Remove worn Drive Belt. Fit a replacement belt on the Drive Pulley. DO NOT allow replacement belt to fall off the Pulley. Use a rubber or wooden mallet with a wooden block against the other end of the Headstock spindle to carefully drive it back to its original position. If Pulley Set Screw has been loosened, ensure Pulley is returned to its original position, and tighten the Pulley Set Screw to secure it.
7. Check and ensure Drive Pulley and Motor Pulley are vertically aligned. Vertical alignment of Drive Pulley and Motor Pulley is crucial for safe and proper operation of the Lathe. If Pulleys are not aligned, loosen Pulley Set Screw and adjust position of Drive Pulley until fully aligned.

NOTE: *The grooves in the Pulley Wheels and the Belt itself will assist in the alignment of the Belt.*

Figure 12



8. Position the new Drive Belt on the aligned Drive Pulley and Motor Pulley to set the desired spindle speed. Make sure belt is securely positioned on corresponding top and bottom pulleys. Do NOT allow the Belt to run at an angle.
9. Lower the Belt Tension Lever until tension is restored to the Drive Belt. The belt should be able to deflect inward about 1/2". Thread Headstock Wheel on and tighten the Set Screw. Rotate Headstock Wheel by hand ensuring the drive belt doesn't wander or drift.
10. Tighten Belt Tension Lever Lock Handle.
11. Return both Side and Rear Belt Covers to closed position. Tighten the knob to secure the covers in place.
12. Plug in and turn on the Lathe to verify speed is suitable for the workpiece. ***(In general, the larger the workpiece, the slower the speed.)***

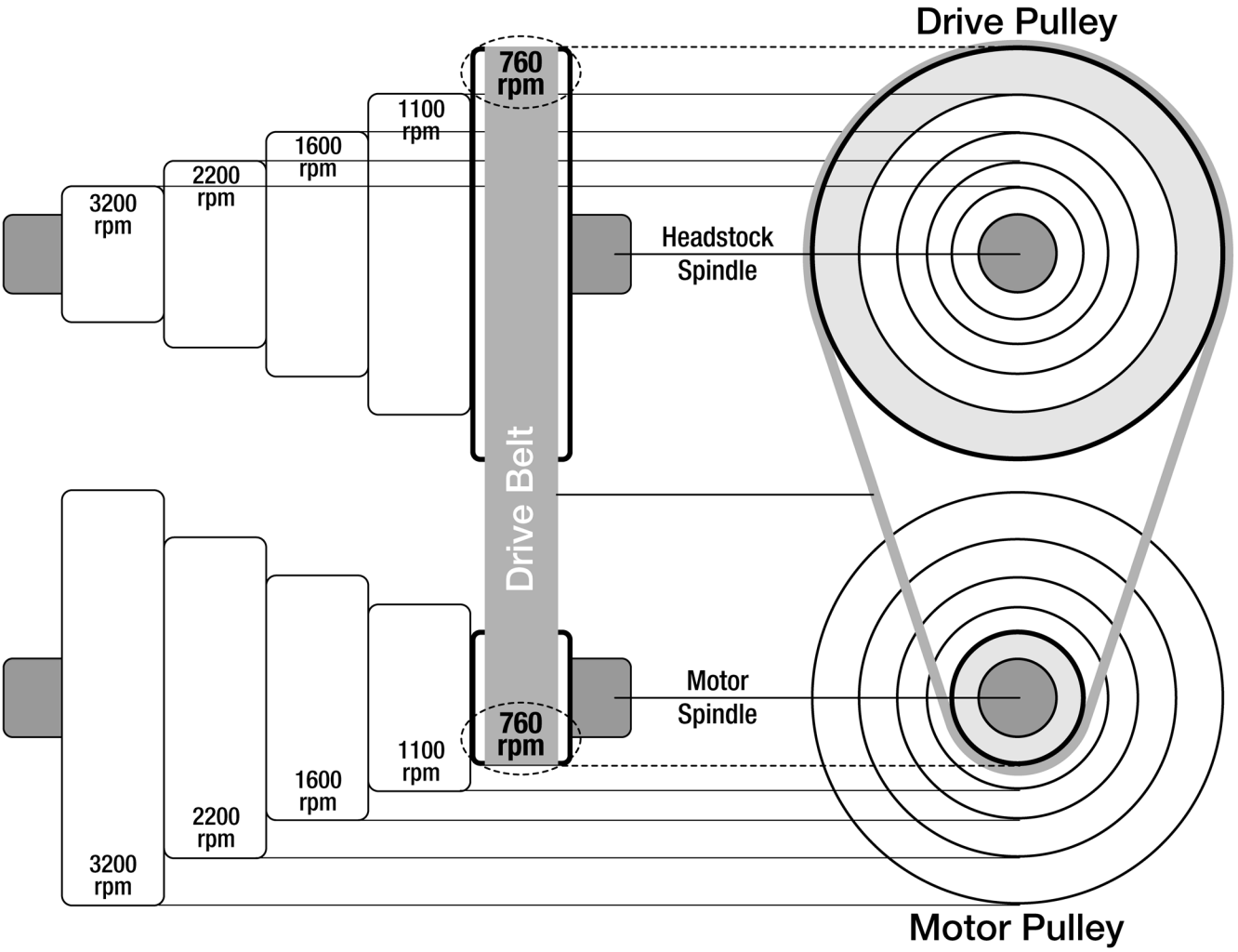
ADJUSTING THE SPINDLE SPEED

DISCONNECT MACHINE FROM POWER

This Mini Wood Lathe is equipped with five speeds:
760 rpm—1100 rpm—1600 rpm—2200 rpm—3200 rpm.

When beginning a new workpiece—always start with the lowest speed (760 rpm).

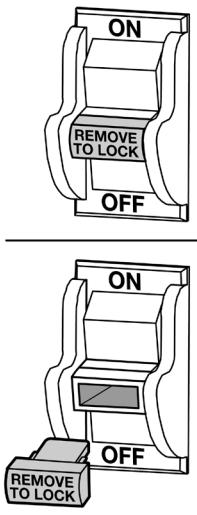
Figure 13



ON/OFF SWITCH

1. The Mini Wood Lathe is equipped with a Keyed Switch to prevent unauthorized use.
2. **To turn Mini Lathe ON:** Insert Safety Key into central key slot and firmly push Safety Key into the Switch.
3. Place the ON/OFF switch in the ON position to start the Mini Lathe.
4. **To turn Mini Lathe OFF:** Place ON/OFF switch in the OFF position.
5. When Mini Lathe comes to a complete stop, carefully remove Safety Key. Store Key for future use.

Figure 14



CAUTION

When Mini Lathe is not in use, remove Safety Key from machine. Store Safety Key in a safe place and out of children's reach.

SETTING THE LATHE SPEED

DISCONNECT MACHINE FROM POWER

1. Loosen top knobs on Side Belt Access Cover and Rear Belt Access Cover. Rotate Access Covers allowing access to Drive Belt. Tighten knobs to hold Access Covers in the open position.
2. Loosen Belt Tension Lever Lock Handle until Belt Tension Lever lifts freely—allowing Drive Belt to be repositioned.
3. Keep lifting Belt Tension Lever as necessary. Move Drive Belt to the appropriate set of pulleys proper speed. *(In general, the larger the diameter of the workpiece, the slower the speed.)* **For example:** Speeds for spindle turning are higher than speeds for bowl turning.
4. Make sure that the belt is securely positioned on complementary top and bottom pulleys. Do NOT position the belt so that it is running at an angle.
5. Lower Belt Tension Lever until tension is restored to belt. (See Figure 9) The belt should be able to deflect inward about 1/2".) Spin Headstock Wheel by hand to ensure drive belt does not wander or drift.
6. Tighten Belt Tension Lever Lock Handle.
7. Rotate Side Belt Access Cover and Rear Belt Access Cover to closed position and secure both covers in place.
8. Plug in and turn Lathe on to verify speed.

FOR ALL LATHE TURNING OPERATIONS

⚠ WARNING

Risk of personal injury. Before beginning any turning project ensure workpiece is fully secured on the lathe between centers, with a faceplate and screws of sufficient length, or in a four-jaw chuck with appropriate jaws. An inadequately secured workpiece could come off the lathe at high velocity, potentially causing serious injury.

Read instructions: Use proper apparel / safety gear.

⚠ WARNING

Risk of personal injury. DO NOT turn a defective workpiece. Check workpiece for splits, cracks, embedded debris or other defects that could compromise the integrity of the wood and possibly lead to the workpiece coming apart or coming off the lathe.

MOUNT WORKPIECE BETWEEN CENTERS (SPINDLE TURNING)

Spindle turning is the operation performed when a workpiece is mounted between the headstock and the tailstock.

See Mini Wood Lathe Operational Features (if needed) **Page 6, Figure 2**

Figure 15

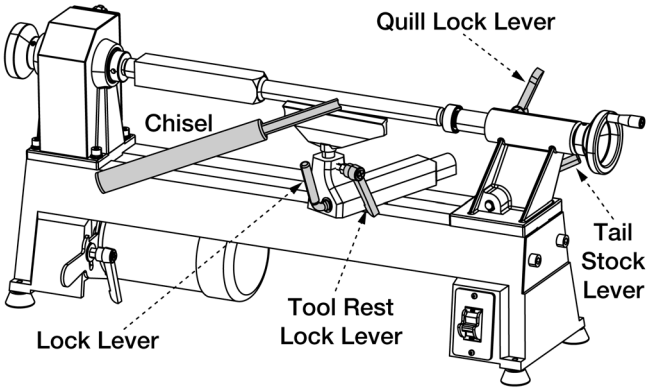
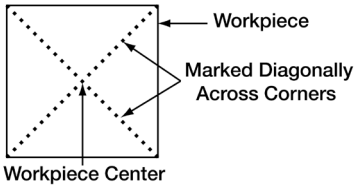


Figure 16



1. Draw diagonal, corner-to-corner lines on both ends of the workpiece to locate the center point. Use a punch to mark the point.

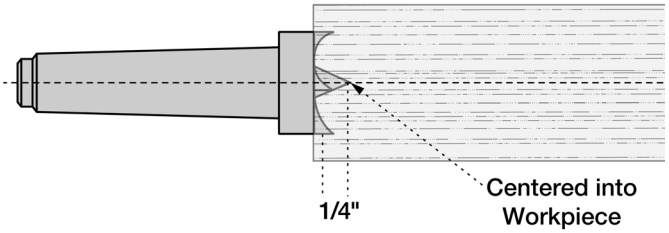
2. Remove Spur Center from Headstock Spindle by inserting knockout rod into outboard end of Spindle. Use a shop rag or gloves to catch Spur Center. Gently tap knockout rod until Spur Center has disengaged from Spindle.

3. If Faceplate is installed on Headstock Spindle—rotate counterclockwise to remove Faceplate. Securely hold the workpiece in vertical position or clamp it in a vise. On one end, place center point of Spur Center at center of workpiece

4. Hold Spur Center straight—use a dead blow or wooden mallet to tap Spur Center at least 1/4" into workpiece. For hard wood, drilling a 1/8" diameter by 3/16" deep hole in end of workpiece before setting Spur Center is recommended.

Figure 17

Spur Center Fully and Properly Embedded



5. Reinstall Spur Center into Spindle and bring workpiece up to it. Line up impressions with wings on Spur Center while holding workpiece parallel to Lathe Bed.

6. Release Tailstock Lock Lever and slide Tailstock until tip of Live Center almost contacts the workpiece. Press down on Tailstock Lock Lever to lock down Tailstock. If the Tailstock Lock Lever is too tight or too loose, adjust mounting nut on underside of tailstock for proper clamping pressure.

7. While holding workpiece securely in place, loosen Quill Lock Lever. Turn Quill Hand-wheel to advance Live Center ensuring tip lines up with center point marked on end of workpiece.

8. When tip of Live Center hits—keep tightening Quill Hand-wheel until workpiece is securely captured by both Spur Center and Live Center. Tighten Quill Lock Lever to lock Quill in position.

9. Loosen Lock Lever and Tool Rest Lock Lever. Slide Tool Rest up to workpiece leaving approximately 1/8" between Tool Rest and workpiece. Spin workpiece by hand ensuring it does not contact Tool Rest when Lathe is turned on.

10. When needed, adjust Tool Rest up or down to preferred height for the task—then engage Tool Rest Lock Lever. For most operations, the top edge of the rest will be just above the horizontal centerline of the workpiece.

11. Again, spin workpiece by hand making sure no part is in contact with the Tool Rest.

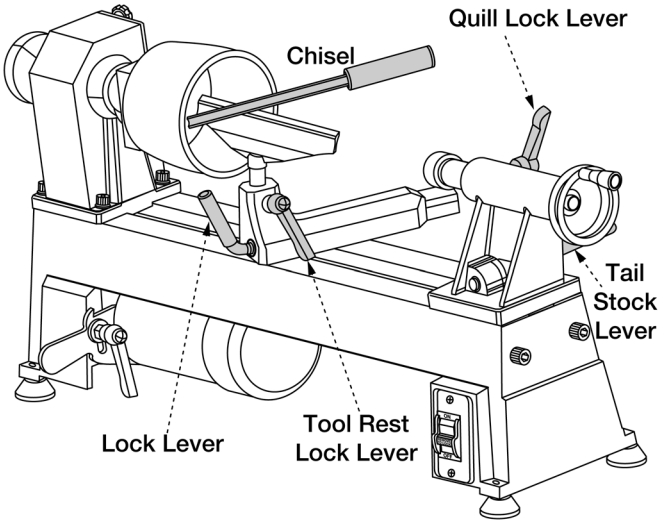
MOUNT WORKPIECE USING A FACEPLATE

Faceplate turning is achieved by mounting the workpiece to the faceplate, then mounted to the headstock spindle.

This turning technique is used for open-faced workpieces such as bowls or plates.

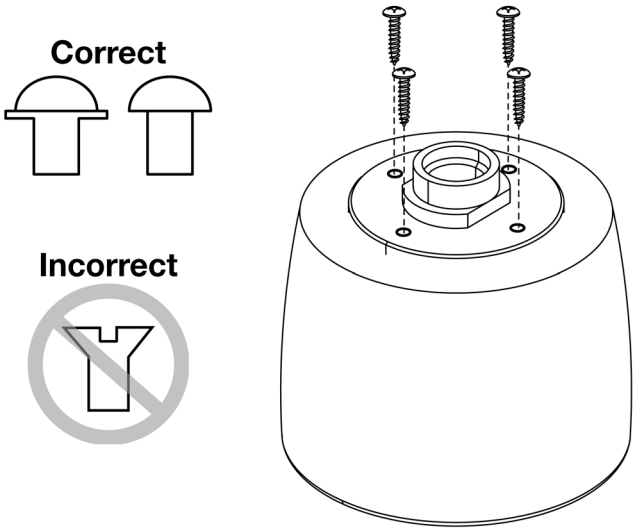
See Mini Wood Lathe Operational Features (if needed) **Page 6, Figure 2**

Figure 18



1. Choose a workpiece sized to allow it to spin on Lathe without contacting Lathe Bed ensuring it does not exceed recommended size limitations of Lathe. Remove any corner edges with a band saw or handsaw. Ensure workpiece Faceplate mounting surface is reasonably flat. If needed, chisel out an area large enough to accommodate Faceplate.
2. Use a center finder or some other means to locate and mark the center of the workpiece.
3. See Figure 19. Center Faceplate over center mark on workpiece. Using the Faceplate as a guide, mark locations of ALL screw holes on workpiece—drill the pilot holes.
4. Attach faceplate to workpiece using wood screws that do not have tapered heads. (See proper screw head examples below). Make sure it is firmly attached.

Figure 19



NOTE: *Use pan-head or washer-head screws to hold your workpiece to the Faceplate. The screws need to be long enough to provide a strong bite on the workpiece but shorter than the final depth of the recess you will turn inside the bowl or platter. Typically, screws at least 1".*

NOTE: *Use a Tailstock Support for turning bowls or platters requiring the use of a Faceplate or a four-jaw chuck.*

5. Thread Faceplate with mounted workpiece onto Spindle.
6. Release Tailstock Lock Lever and slide Tailstock until tip of Live Center almost contacts workpiece. Press down on Tailstock Lock Lever to lock down Tailstock.
7. If Tailstock Lock Lever is too tight or loose, slightly adjust mounting nut from underside of tailstock to ensure proper clamping pressure.
8. Carefully turn Quill Handwheel to advance Live Center. Once tip of Live Center makes contact, continue tightening Quill Handwheel to make sure Live Center is seated.
9. Loosen Lock Lever and Tool Rest Lock Lever. Slide Tool Rest up to workpiece leaving approximately 1/8" between Tool Rest and workpiece. Spin workpiece by hand ensuring it does not contact Tool Rest when Lathe is turned on.
10. When needed, adjust Tool Rest up or down to preferred height for the task—then engage Tool Rest Lock Lever.
11. Again, spin workpiece by hand making sure no part is in contact with the Tool Rest.
12. See Figure 18. Move Tailstock away from the workpiece before turning to hollow out the bowl.

MAINTENANCE

- **Keep machine clean.** Clean the machine at the end of each use. Wood contains moisture, which means sawdust and wood chips can cause rust if not removed.
- **Oil the machine.** Teflon lubricant is recommended as it tends to be dry—so less dirt and dust accumulation. Regular oil attracts dust and dirt.
- Periodically check that all nuts and bolts are tight.
- The drive belt should last for many years depending on usage. However, inspect it regularly for cracks, cuts and general wear. ***If damaged, replace the belt before operation.***
- All bearings are sealed for life and do not require any maintenance. If a bearing becomes faulty, replace it.
- The lathe is made from steel and cast iron. All non-painted surfaces will rust if not protected. Apply a light coat of good-quality paste wax to all machined surfaces to protect against rust and corrosion.
- Blow out dust accumulation inside the motor, housing, and bed assembly frequently.
- If the tailstock has been used as a guide for drilling through the center of a workpiece, blow sawdust or shavings out of the center of both the headstock spindle and the tailstock quill.
- A Coat of Machine Lubricant applied to the bed will help keep the surface clean and the movement of the tool rest and tailstock smooth.
- Periodic lubrication of the spring levers and other threaded parts allows these parts to operate smoothly.

GENERAL MAINTENANCE

⚠ WARNING

When servicing, use only identical replacement parts. Use of any other parts may create a hazard or cause product damage.

⚠ WARNING

Keep the Mini Wood Lathe 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 Mini Wood Lathe. Chemicals can damage, weaken or destroy plastic which may result in serious personal injury.

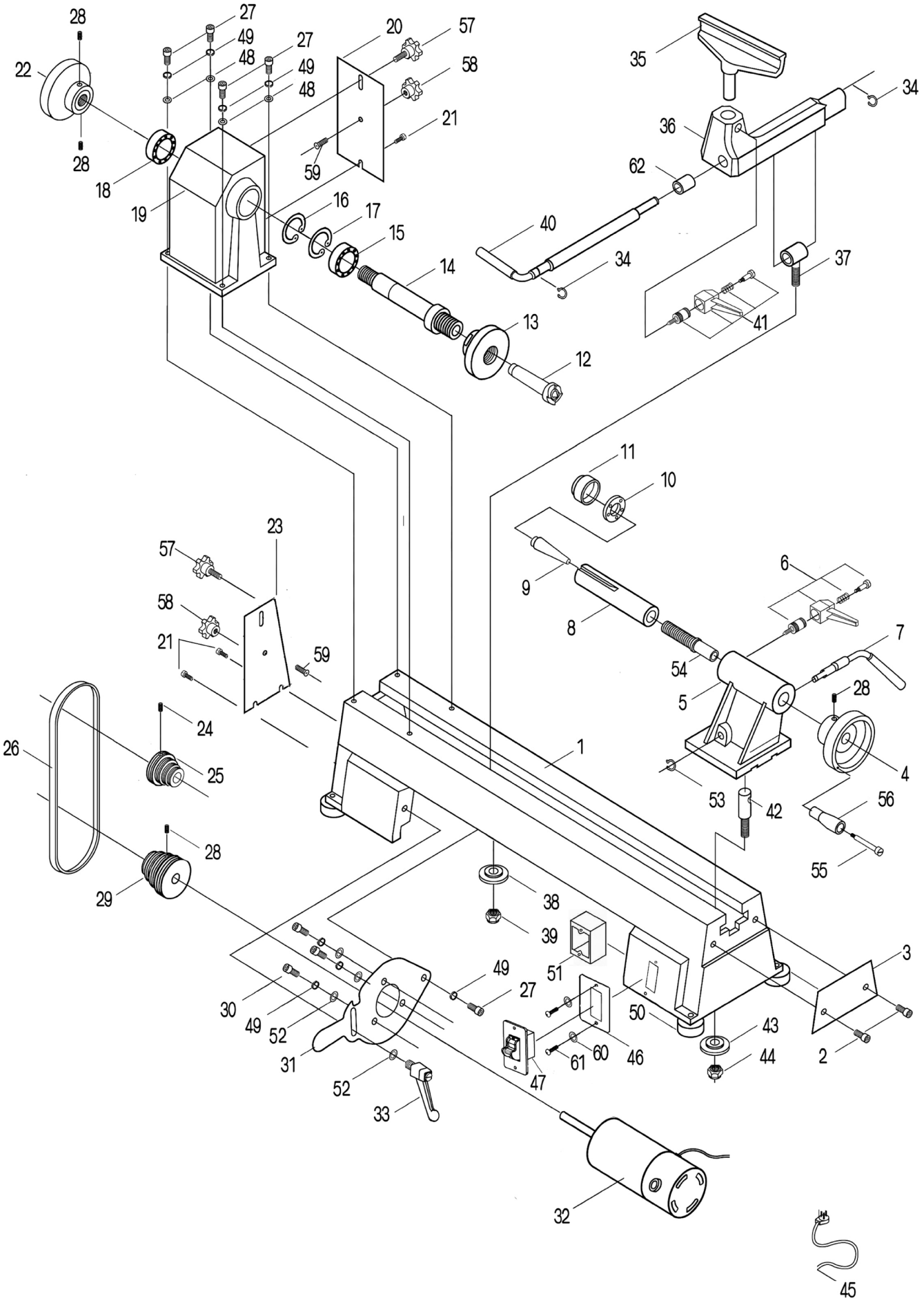
12 TROUBLESHOOTING

Follow all safety precautions when servicing unit

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Motor or Spindle stalls and will not start	**1.** Excessive cut	Reduce depth of cut
	2. Worn/damaged/improperly adjusted belt	Adjust or replace belt
	3. Worn spindle bearing	Replace bearing
	4. Workpiece is too large	Switch to a smaller workpiece
Excessive vibration	**1.** Workpiece is warped, out of round, has a major flaw or improperly prepared for turning	Correct the problem by planing or shaping workpiece. Discard defective workpiece and restart project.
	2. Worn Spindle bearing	Replace spindle bearings
	3. Worn drive belt	Replace drive belt
	4. Lathe is on uneven surface	Place lathe on a flat surface, such as a sturdy benchtop or lathe stand
Tools grab or dig in	**1.** Dull tools	Keep tools sharp
	2. Tool rest is too low	Reposition tool rest height
	3. Tool rest set too far from workpiece	Reposition tool rest closer to workpiece
	4. Improper tool being used	Use correct tool for the application
Tailstock moves when applying pressure	**1.** Cam lock nut needs adjusting	Please contact the customer service center at 1-847-780-6120
	2. Lathe bed and tailstock mating surfaces are greasy or oily	Remove tailstock and clean surfaces with an appropriate cleaner. Apply a light coat of wax to the lathe bed surface.

NOTES

14 LT1018 MINI WOOD LATHE PARTS ILLUSTRATION



LT1018 MINI WOOD LATHE COMPONENTS

Key No.	Part No.	Description	Specs	Qty
1	LT1018001	Lathe Bed		1
2	LT1018002	Hex Socket Hex Screw (Use 8 mm Key wrench)	M10x25	2
3	LT1018003	Side Belt Cover		1
4	LT1018004	Quill Hand-Wheel		1
5	LT1018005	Tailstock		1
6	LT1018006	Quill Lock Lever		1
7	LT1018007	Tailstock Lock Lever		1
8	LT1018008	Tailstock Axis		1
9	LT1018009	Tailstock Taper Rod		1
10	LT1018010	Bearing Ball		1
11	LT1018011	Tailstock Spur		1
12	LT1018012	Spur Center		1
13	LT1018013	Faceplate		1
14	LT1018014	Headstock Spindle		1
15	LT1018015	BALL BEARING	6005RS	1
16	LT1018016	C-Ring	Φ47	1
17	LT1018017	C-Ring	Φ47	1
18	LT1018018	BALL BEARING	6005RS	1
19	LT1018019	Headstock		1
20	LT1018020	Rear Belt Cover (on back of Headstock)		1
21	LT1018021	Screw	M5x7	3
22	LT1018022	Headstock Wheel		1
23	LT1018023	Side Belt Cover		1
24	LT1018024	Hex. Socket Set Screw (Use 3 mm Key Wrench)	M6x10	1
25	LT1018025	Drive Pulley		1
26	LT1018026	Drive Belt		1
27	LT1018027	Hex Socket Head Screw (Use 6 mm Key wrench)	M8×30	5
28	LT1018028	Hex Socket Set Screw (Use 3 mm Key wrench)	M6×10	4
29	LT1018029	Motor Pulley		1
30	LT1018030	Hex Socket Head Screw	M6x16	3
31	LT1018031	Motor Plate		1
32	LT1018032	Motor		1
33	LT1018033	Belt Tension Lever and Lever Handle		1
34	LT1018034	C-Ring	12 mm	2
35	LT1018035	Tool Rest		1
36	LT1018036	Tool Rest Base		1
37	LT1018037	TOOLREST CAM FOLLOWER		1
38	LT1018038	Lock Plate		1
39	LT1018039	Hex Nut	M10-1.5	1
40	LT1018040	Lock Lever		1
41	LT1018041	Tool Rest Lock Lever		1
42	LT1018042	Bolt	M10-1.5x30mm	1
43	LT1018043	Lock Plate		1
44	LT1018044	Hex Nut	M10-1.5	1
45	LT1018045	Power Cord		1
46	LT1018046	Plate		1
47	LT1018047	Switch		1
48	LT1018048	Flat Washer	Φ8	4
49	LT1018049	Spring Washer	Φ8	8
50	LT1018050	Rubber Foot Pad		4
51	LT1018051	Switch Box		1
52	LT1018052	Flat Washer	Φ6	4
53	LT1018053	C-Ring	Φ10	1
54	LT1018054	Tailstock Quill		1
55	LT1018055	Bolt	M6-1x53	1
56	LT1018056	Quill Handle		1
57	LT1018057	Star Stud Knob	M5x10	2
58	LT1018058	Star Knob		2
59	LT1018059	Bolt	M5x16	2
60	LT1018060	Flat Washer	Φ4	2
61	LT1018061	Screw	ST4x25	2
62	LT1018062	Spacer		1

WARRANTY

Thank you for investing in a ***POWERTEC®*** 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 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*** 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 ***POWERTEC***. 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*** 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***.

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.