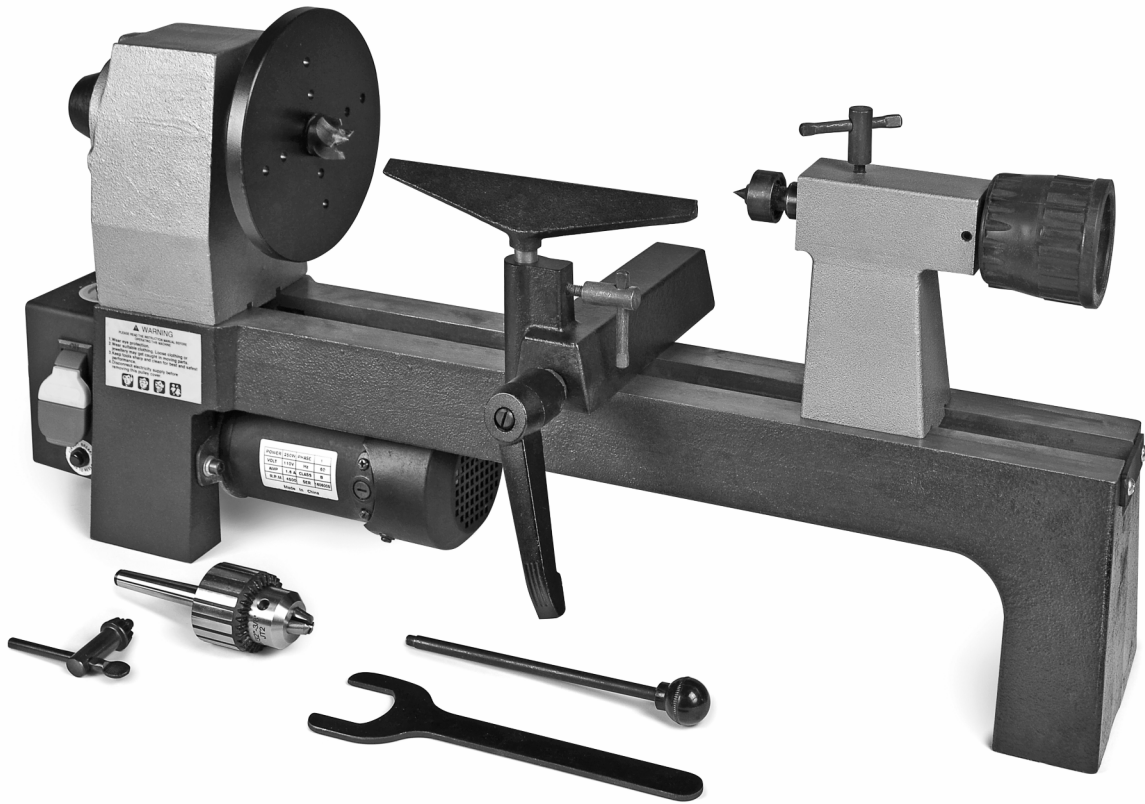


MicroLux[®]

#86892

8" x 12"

Wood Turner's Lathe



Please read and understand all instructions before using this tool.

Note: These instructions will show you how to assemble this machine, work its controls and maintain it for long life. It is not intended as an educational course on how to make parts using a lathe.

Made in China for

Micro-Mark[®]
THE SMALL TOOL SPECIALISTS

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Berkeley Heights, NJ 07922**

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MM041217

INTRODUCTION

Your 8" x 12" Variable Speed Wood Lathe is a dependable tool designed to assist you in turning many types of projects. It is easy to assemble and to operate and is an ideal lathe for those just getting started in wood turning and experienced users alike.

IMPORTANT: This manual is not intended as a "Teaching Guide" on how to perform wood turning. It describes functions of the components and gives general information about the lathe. Micro Mark offers books and videos that teach the processes of wood turning. In addition, there are many sources widely available on the internet, libraries and classes that one might take in order to achieve professional results.

Take the time to read and understand these Operation and Safety Instructions in order to use this machine to its fullest potential.

SPECIFICATIONS

Motor:	250W (1/3 hp), 2.3 Amps, 120V 60 Hz
Motor speed:	750 – 3200 rpm
Distance between centers:	12"
Swing over bed:	8"
Drive spindle:	1" x 8 TPI
Drive spindle through hole:	3/8"
Tailstock through hole:	3/8"
Headstock center taper:	MT1
Tailstock center taper:	MT1
Overall size:	28" x 8.5" x 12"
Net weight:	43 lbs.

GENERAL SAFETY INFORMATION

WARNING: To avoid mistakes that could cause serious injury, do not plug the lathe in until the following steps have been read and understood.

Safety is a combination of common sense staying alert and knowing how to use your mini wood lathe.

Avoid dangerous conditions. Do not use power tools in wet or damp areas or expose them to rain. Keep work areas well lit.

Do not use power tools in the presence of flammable liquids or gases.

Always keep your work area clean uncluttered and do not work on floor surfaces that are slippery with sawdust or wax.

Keep bystanders at a safe distance from the work area, especially when the tool is operating.

NEVER allow children near the lathe.

Do not use the lathe to do a job for which it was not designed.

Always remove the power cord plug from the electrical outlet when making adjustments, changing parts, cleaning or working, and when servicing the motor.

Avoid accidental start-ups. Make sure the power switch is in the OFF position before plugging your machine into power.

Never leave a running lathe unattended. Turn the power switch to OFF. Do not leave the lathe until it has come to a complete stop.

Always make sure to adjust the tool rest to be in a safe operational position before turning on the lathe.

Do not wear loose clothing, gloves, neckties or jewelry (rings, necklaces or watches) when operating the lathe. They can get caught and draw you into moving parts. Always wear non-slip footwear and tie long hair back.

Wear a face shield at all times when operating the lathe. Wear a dust mask when working in a dusty environment. Use ear protection such as plugs or muffs during extended periods of operation.

Wearing a dust mask that can filter-out microscopic particles is essential for long term good health. Some wood dusts can be dangerous to your health or could cause allergic reaction. Working in a well-ventilated area is good work practice. Use of a vacuum system when operating is highly recommended.

Prop 65 Warning: Some dust created by using power tools contain chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

This lathe is designed to turn wood or wood-like materials. Turning other materials may result in damage to the machine or injury to the user.

Tighten all locks before using machine.

Use the slowest speed when starting the lathe.

When turning a workpiece, always rough the wood to round form at a slow speed. If the lathe runs so fast that it vibrates, there is a risk that the workpiece could be thrown from the lathe causing injury.

Always rotate the workpiece by hand before turning on the motor. If the workpiece contacts the tool rest, adjust the tool rest support for adequate clearance.

Always position the tool rest near the centerline of the lathe when shaping a piece of stock.

Do not operate the lathe if it is rotating in the wrong direction. The workpiece must always be rotating toward you.

Before attaching a workpiece to the faceplate, always cut it as round as possible. This minimizes vibration 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 lathe.

Position your hands so that they remain at a safe distance from the rotating workpiece.

Remove all loose knots in the stock before mounting it between the centers or on the faceplate.

Do not operate the machine if you are under the influence of drugs, alcohol or medication that could affect your ability to use the lathe properly.

Make your workshop childproof. Use padlocks, master switches and always remove starter keys.

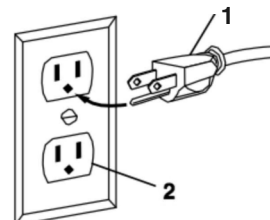
Use only identical replacement parts when servicing this lathe.

Avoid contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electrical shock if your body is grounded. Double insulation does not take the place of normal safety precautions when operating this tool.

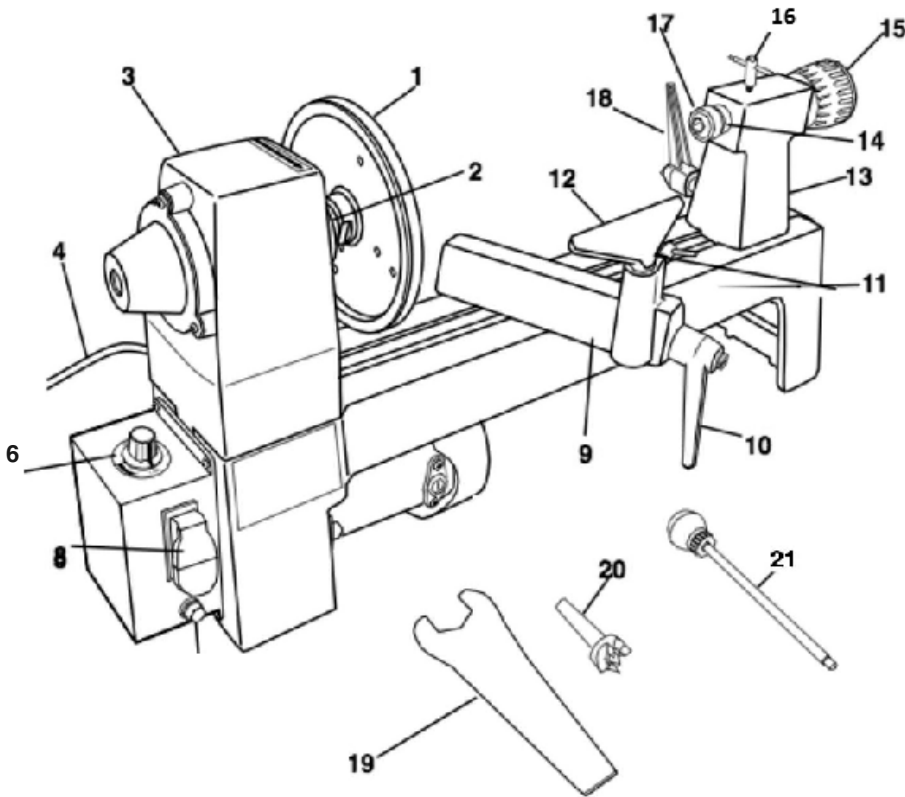
Maintain lathe properly. Always keep your machine clean and in good working order. Follow instructions for lubricating and changing accessories.

Do not modify the power cord plug. If it does not match the electrical outlet have the proper outlet installed by a qualified electrician.

This tool is intended for use on a circuit that has a receptacle like the one illustrated: a 3-prong electrical plug (1) and receptacle (2) that has a grounding conductor. If a properly grounded receptacle is not available, have a certified electrician check the receptacle.



Warning: Do not use the lathe until it is completely assembled according to the instructions.



- 1 Faceplate
- 2 Spindle
- 3 Headstock
- 4 Power cord
- 6 Speed control knob
- 7 Circuit breaker reset button
- 8 Switch
- 9 Tool rest banjo
- 10 Base lock lever
- 11 Tool rest lock lever (long)
- 12 Tool rest
- 13 Tailstock
- 14 Tailstock spindle
- 15 Hand wheel
- 16 Tailstock spindle lock lever (short)
- 17 Tailstock cup center
- 18 Tailstock lock lever
- 19 Flat wrench
- 20 Headstock spur center
- 21 Knock-out rod

Note: 2-1/4" Faceplate and 2 hex keys are provided, but not shown.

KNOW YOUR MICROLUX WOOD LATHE

WARNING! To avoid injury from accidental starting turn the switch OFF and remove the plug from the power source receptacle before making any adjustments.

INSTALLATION OF LOCKING LEVERS

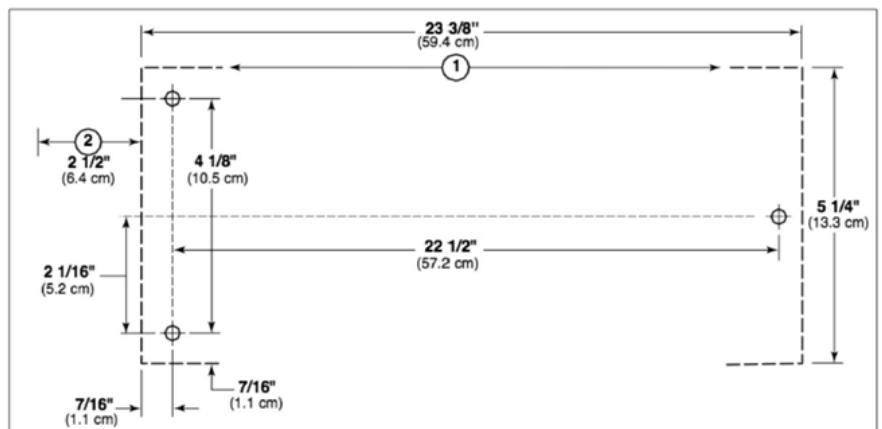
Item #11 is the long locking lever provided and #16 is the shorter locking lever. When installing #16, there is a slot on the tailstock sleeve that the tip of #16 needs to be inserted for proper operation. If you wind out the sleeve by rotating the #15 knob you will see this slot mentioned. You can also view it by peering into the hole where #16 is threaded into. During turning operation, it keeps the sleeve from rotating.

ASSEMBLY

WARNING! The lathe must be bolted to the bench top OR an alternative platform that can be clamped to your bench. Operating a lathe that is not bolted down may result in serious injury.

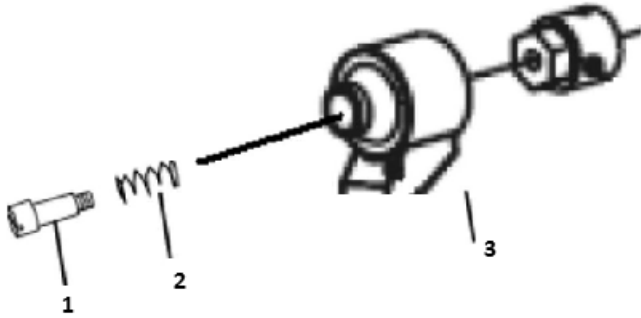
Mark three hole centers as shown.

Drill clearance holes through the platform. Position the lathe on top. Install the bolts with washers (not included with the lathe) from underneath the top into the tapped holes in the bottom of the lathe frame. The threaded holes in the base are M8 – 1.25 pitch. To secure properly, the bolts should extend at least 1/2" into the threaded holes.



SPRING-LOADED LOCK LEVERS

Assemble the Spring-Loaded lock levers for the tailstock spindle and the tool rest. The shoulder screw (1) passes through the spring (2) and the handle lever (3) then finally into position on the machine.



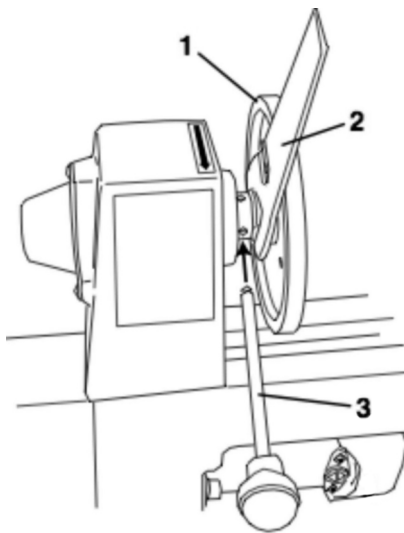
The Spring-Loaded handles on the lathe are designed to minimize interference with other lathe parts on the workpiece. To operate, push the handle lever in and turn clockwise to tighten. Pulling the handle lever outward will disengage the threaded shaft, allowing you to reposition the lever handle so it is out of the way.

FACEPLATE MOUNTING AND USE

Your lathe is provided with 2 faceplates. Use an appropriate size faceplate for your workpiece. Mount the workpiece onto the faceplate with heavy gauge wood screws (not provided). Make sure the screws are not so long that they will enter the area of the workpiece where material is to be removed.

Note: The faceplate has an open center. When drilling through a workpiece from the tailstock, the drill bit can go completely through the workpiece.

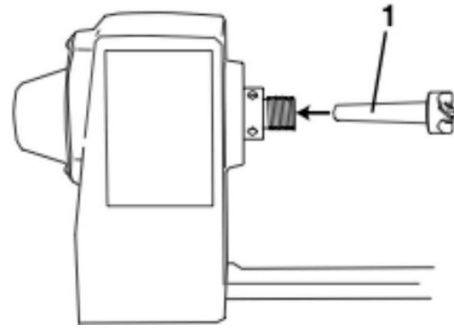
INSTALL OR REMOVE A FACEPLATE



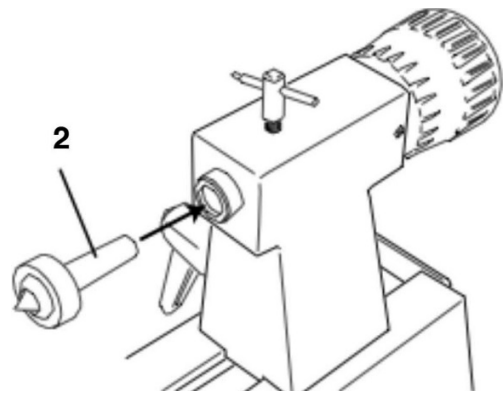
1. Thread the faceplate (1) onto the end of the headstock spindle and hand tighten.
2. Place the wrench (2) over the flats on the faceplate. Note: Since the headstock spindle is belt driven it will turn freely if not held stationary while the faceplate is tightened or loosened.
3. Insert the tip of the push-out rod (3) into one of the slots in the side of the headstock spindle.
4. Grip the push-out rod firmly while turning the wrench to either tighten or loosen the faceplate.
5. Remove the push-out rod and wrench. If the faceplate is being removed, continue turning it until it comes off the spindle threads.

INSTALLING THE DRIVE SPUR AND LIVE CENTER

1. Insert the shaft of the spur (1) into the hollow center of the headstock spindle.



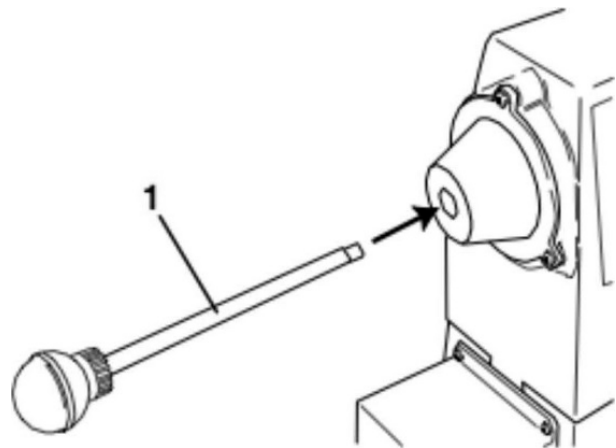
2. Insert the shaft of the tailstock center (2) into the hollow center of the tailstock spindle.



WARNING! Do not operate your lathe until it is completely assembled and adjusted according to the instructions.

TO REMOVE A SPUR OR CENTER

1. Insert the push-out rod (1) into the far end of the headstock spindle or the tailstock spindle until it comes into contact with the shaft of the spur or center.



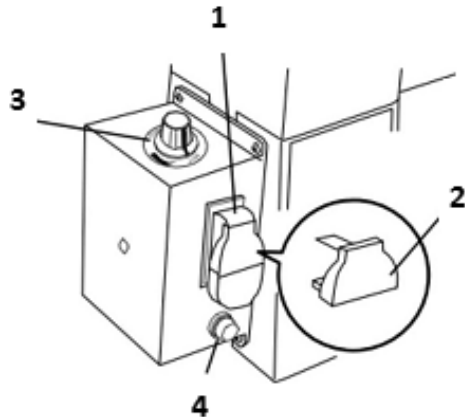
2. Tap the end of the push-out rod until the spur or center comes loose.

ADJUSTMENTS

The variable speed control contains the electrical connections to the motor and has three external controls: ON/OFF switch, speed control knob, and the circuit breaker reset button.

ON / OFF SWITCH

The ON/OFF switch (1) controls electrical power to the lathe's motor.



1. Move the switch to the ON position to start the motor.
2. Electric current is immediately applied to the motor and the lathe will begin turning and driving the headstock spindle.

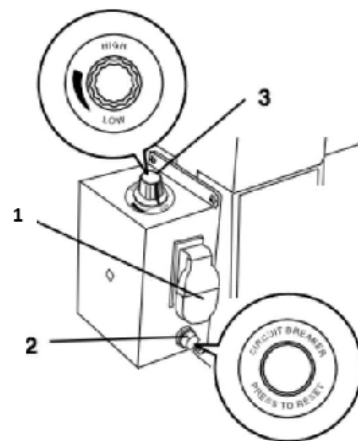
Note: A special “soft start” safety feature does not allow the lathe to reach full speed until 1 to 3 seconds after activation. The time it takes the motor to reach the speed set by the speed control knob depends on the size and weight of the workpiece.

3. Move the switch to the OFF position to stop the lathe. The electric current is immediately disconnected but, the spindle and workpiece will continue to spin until the kinetic energy of the rotation stops.
4. The switch key (2) can be pulled out of the power switch when it is in the OFF position. With the key removed the switch is locked in that position and the lathe cannot be started. Store the key in a safe place when the lathe is left idle.

WARNING! Always set the speed control knob to its lowest (counter-clockwise) setting before starting the lathe. Never start a workpiece at maximum speed. There is a 1 to 3 second delay in motor activation when starting.

SPEED CONTROL

The speed control knob (3) sets the speed of the lathe to suit the weight of the workpiece or the type of tool being used. After the lathe has started turning, rotate the knob clockwise to increase the spindle speed.



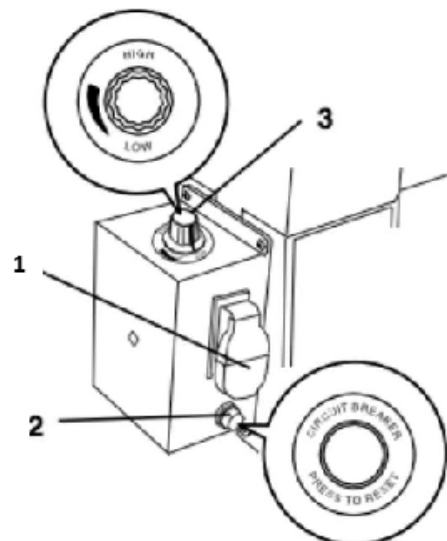
1. Turn the knob counter-clockwise to decrease spindle speed (down to minimum 750 RPM).
2. Turn the knob clockwise to increase spindle speed (up to maximum 3200 RPM).
3. Adjust the knob until the desired workpiece rotation speed is reached.

CIRCUIT BREAKER OPERATION

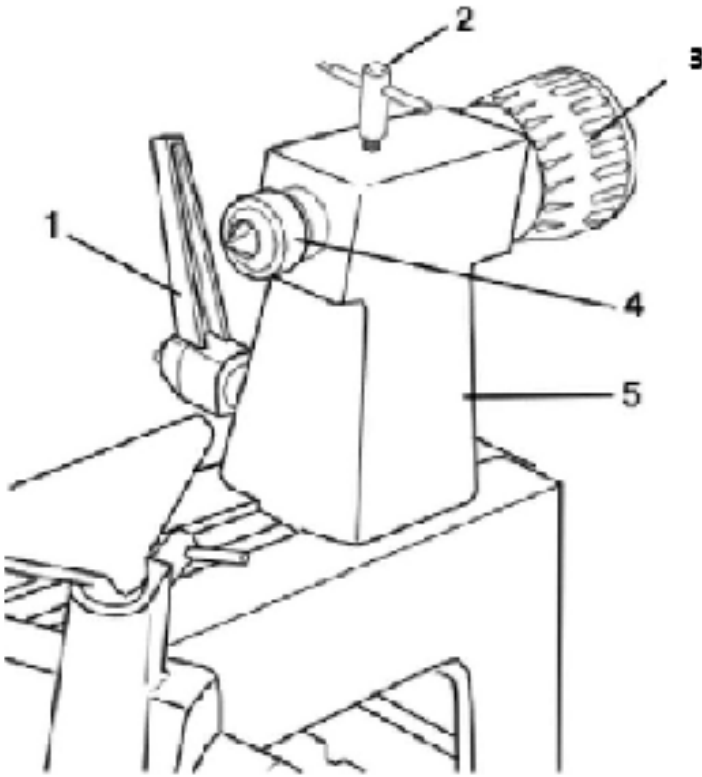
This tool has a circuit breaker reset button (2) that will restart the motor after it shuts down due to overloading or low voltage. If the motor stops during operation.

1. Turn the ON/OFF switch (1) to the OFF 1 position.
2. Wait about 5 minutes for the motor to cool.
3. Push in the reset button (2)
4. Turn the switch (1) to the ON position.

WARNING! To prevent an accidental start-up if the reset button is pushed the ON/OFF switch should be in the OFF position and the plug should be removed from the power source while cool down takes place. Overheating may be caused by misaligned parts or dull turning tools. Inspect your tool for proper setup before using it again.

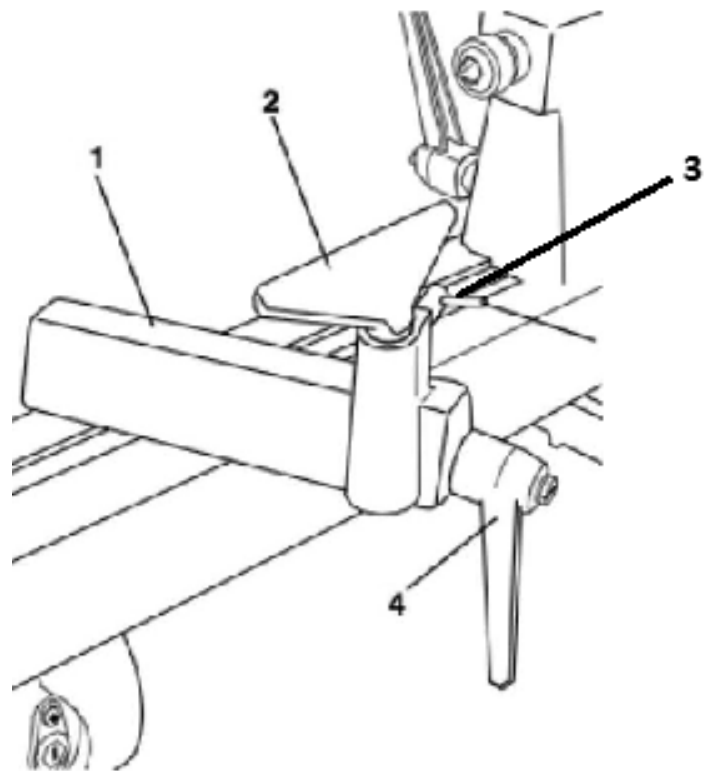


TAILSTOCK OPERATION



1. Move the tailstock (5) by loosening the lock lever (1) and pushing the tailstock to the desired position on the bed. Lock by tightening the lock lever (1).
2. The spindle extends up to 2-1/2" from the tailstock housing. Move the tailstock spindle (4) by loosening the spindle lock lever (2) and turning the hand wheel (3).
 - a. Turn the hand wheel clockwise to extend the spindle.
 - b. Turn the hand wheel counter-clockwise to retract the spindle.
3. Lock levers (1) and (2) before operating the lathe.
4. The tailstock spindle is hollow and can be accessed from the hand wheel end. Use the push-out rod to remove the center cup or to drill holes through the center of a workpiece on a faceplate.

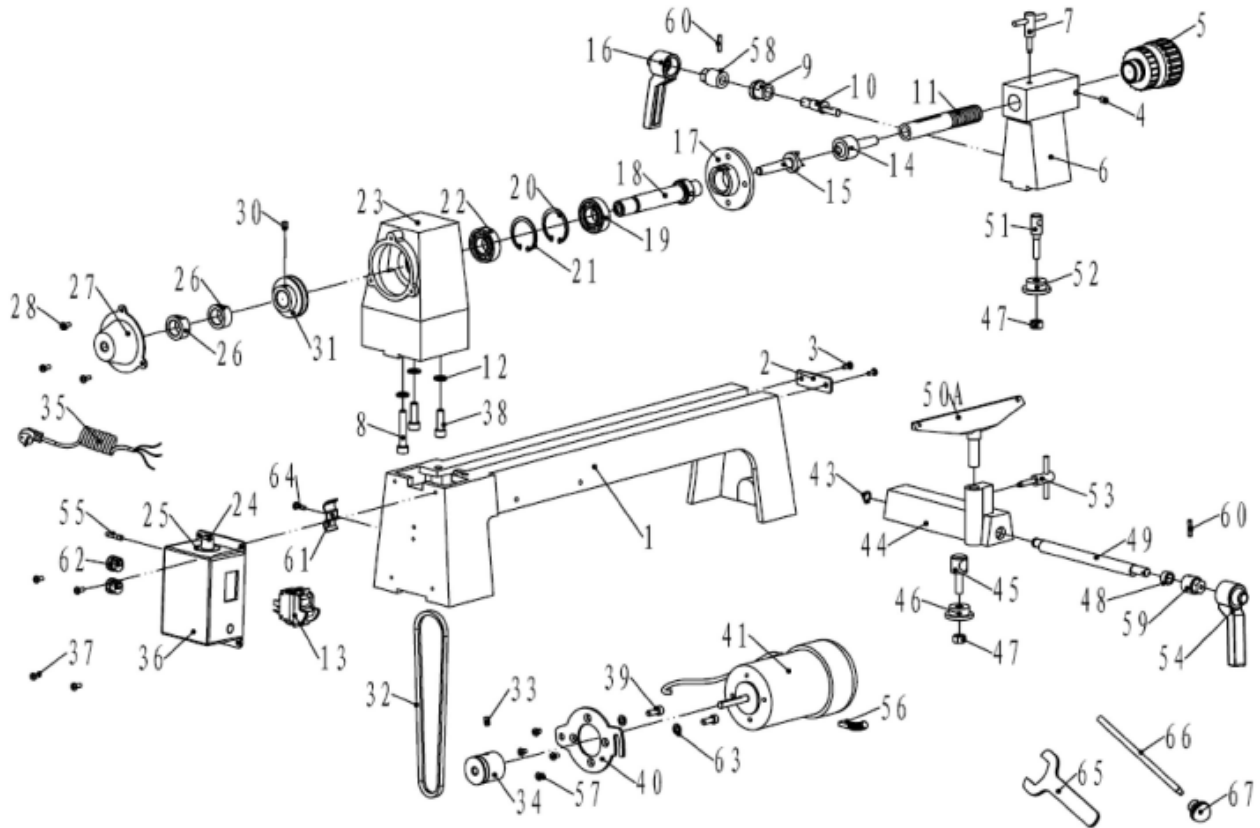
TOOL REST OPERATION



1. Loosen the lock lever (4) to move the tool rest (1) banjo to the right or left and back or wherever required. Then, tighten the lever (4) when the tool rest base is in the desired position on the lathe bed.
2. To adjust the tool rest, loosen the lock lever (3) to move the tool rest (2) to the desired position then tighten the lock lever.
3. To change the tool rest, loosen the lock lever (3) and pull the tool rest (2) out of the tool rest base then insert the other tool rest adjust to the desired position and tighten the lock lever (3).

IMPORTANT: Make sure the tool rest is adjusted to be as close to the workpiece as possible. Rotate the workpiece by hand to check the clearance before turning on the lathe.

PARTS DIAGRAM



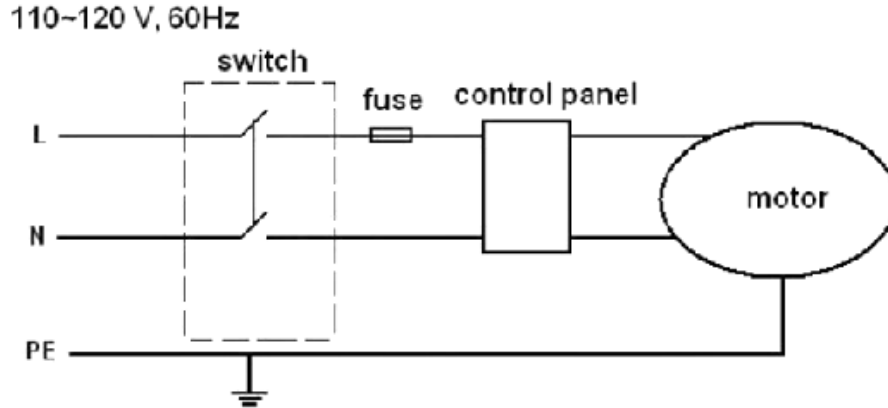
Part No.	Description	Part No.	Description	Part No.	Description
1	Bed	23	Headstock	45	Bolt
2	Retaining plate	24	Speed dial switch	46	Plate
3	Bolt	25	Speed dial label	47	Nut
4	Bolt	26	Headstock spindle nut	48	Sleeve
5	Hand wheel	27	Plate cover	49	Eccentric rod
6	Tailstock	28	Bolt	50A	Tool rest
7	Spindle lock screw	29	Spec label	51	Bolt
8	Bolt	30	Bolt	52	Plate
9	Sleeve	31	Drive pulley	53	Lock bolt for tool rest
10	Eccentric axis	32	Belt	54	Tool holder lock handle
11	Tailstock sleeve	33	Bolt	55	Fuse
12	Washer	34	Motor pulley	56	Carbon brush
13	Switch	35	Power cord	57	Screw
14	Live center assembly	36	Switch box assembly	58	Lock sleeve
15	Headstock spur center	37	Bolt	59	Hex sleeve
16	Tailstock lock handle	38	Bolt	60	Spring pin
17	Faceplate	39	Bolt	61	Cable plate
18	Headstock spindle	40	Motor plate	62	Wire gasket
19	Ball bearing	41	Motor	63	Washer
20	Retaining ring	42	Warning label	64	Screw
21	Retaining ring	43	Retaining ring	65	Wrench
22	Ball bearing	44	Tool rest base	66	Push-out rod
				67	Knob

MAINTENANCE

WARNING! For your own safety turn the switch OFF and remove the plug from the electrical outlet before performing maintenance or lubrication work on the lathe.

1. Blow out dust accumulation inside the motor the housing and the bed assembly frequently. If the tailstock has been used as a guide for drilling through the center of a workpiece also blow sawdust or shavings out of the center of both spindles.
2. 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.
3. Periodic lubrication of the spring levers and other threaded parts will make these parts easier to operate.

WIRING DIAGRAM



LIMITED WARRANTY

Micro-Mark guarantees this product to be free of manufacturing defects for a period of 90 days from date of shipment, regardless of the amount of time the product has been used and/or stored. The product, or parts thereof, will be repaired or replaced (at our option) and shipped back to you free of charge if the following conditions have been met:

- the product is shipped back to us within the warranty period,
- incoming transportation charges have been pre-paid,
- proof of purchase has been provided, and
- our Service Department determines that the problem was caused by a defect in material and/or workmanship.

Please return to **Micro-Mark Product Service Department** at the address below with a note explaining the problem.

For products returned after the warranty period, our regular repair charges shall apply. Please include your telephone number so we may advise you of the repair estimate. Any product returned to the purchaser without repair work being performed shall be shipped C.O.D. for the return transportation charges.

This warranty does not cover damages resulting from improper assembly, adjustment or maintenance, accident, alterations, normal wear, abuse or misuse, and does not apply where products are used commercially. The warranty shall also not apply when the product has been used for purposes beyond those for which it was designed or unreasonable for its size.

Micro-Mark makes no other warranty of any kind whatever, expressed or implied, and all implied warranties of merchantability and fitness for a particular purpose which exceed the above mentioned obligation are hereby disclaimed by Micro-Mark and excluded from this warranty.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. The obligation of the warrantor is solely to repair or replace the products. The warrantor is not liable for any incidental or consequential damages due to such defect. Some states do not allow the exclusion or limitations of incidental or consequential damages, so the above limitations or exclusion may not apply to you.

If you have any questions, please contact our **Product Service Department** by email: tech@micromark.com

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