Operating and Maintenance Instructions

Please read this instruction manual thoroughly and follow all directions carefully.

Made in China for

Micro-Mark

340 Snyder Avenue, Berkeley Heights, NJ 07922
Tech Support: 908-464-1094
www.micromark.com    MMTechService@micromark.com
I. Technical Data

8" x 12" VARIABLE SPEED WOODTURNERS LATHE

Motor 110v AC, 250W
Spindle Speed 750-3200RPM (VARIABLE SPEED)
Distance Between Centers 12"
Swing Over Bed 8"
Net / Gross Weight 44 / 47 Lb

II. General safety rules

Safety is a combination of common sense, staying alert and knowing how your wood lathe works.

**WARNING:** TO AVOID MISTAKES THAT COULD CAUSE SERIOUS INJURY, DON'T PLUG THE WOOD LATHE IN UNTIL THE FOLLOWING STEPS HAVE BEEN READ AND UNDERSTOOD.

1. Read and become familiar with this entire instruction manual. Learn the tool’s applications, limitations, and possible hazards.

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

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

4. Always keep your work area clean, uncluttered and well lit. Do not work on floor surfaces that are slippery from sawdust or wax.

5. Keep bystanders at a safe distance from the work area, especially when tool is operating. Never allow children near the tool.

6. Do not force the tool to do a job for which it was not designed.

7. Dress for safety. Do not wear loose clothing, gloves, neckties, or jewelry (ring, watches) when operating tool. They can get caught and draw you into moving parts. Always wear non-slip footwear, and tie back long hair.

8. Wear a face mask or dust mask. Wood lathe operation produces dust.

9. Always remove the power cord plug from the electrical outlet when making adjustments, changing parts, cleaning or working on the tool.

10. Avoid accidental start-ups. Make sure that the power switch is in the OFF position before plugging in the power cord.
11. Remove adjusting tools. Always make sure all tools are removed from the wood lathe before turning it on.

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

13. Never stand on the tool. Serious injury could result if the tool tips or is accidentally hit. Do not store anything above or near the tool.


15. Maintain tools properly. Always keep tools clean and in good working order. Follow instructions for lubricating and changing accessories.

16. Check for damaged parts. Check moving parts for alignment, binding of moving parts, breakage of parts, improper mounting or any other conditions that may affect the tool's operation. Any part that is damaged should be properly repaired or replaced before use.

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

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

**Warning,** Some dust created by using power tools contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

### III. Specific safety rules for the wood lathe

**WARNING:** DO NOT OPERATE YOUR WOOD LATHE UNTIL IT IS COMPLETELY ASSEMBLED AND INSTALLED ACCORDING TO THE INSTRUCTIONS.

1. For your own safety, read the entire instruction manual before operating the lathe.

2. Always wear eye protection.

3. Do not wear gloves, necktie, or loose clothing.

4. Tighten all locks before operating.
5. Do not mount a split workpiece.

6. Use the lowest speed when starting a new workpiece.

7. Read the warning label attached to the wood lathe.

8. 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.

9. 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 lathe.

10. Do not allow the turning tools to bite into the wood. The wood could split or be thrown from the lathe.

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

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

13. Before attaching a workpiece to the faceplate, always rough it out to make it as round as possible. 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 lathe.

14. Position your hands so that they will not slip onto the workpiece.

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

16. Leave the work area only after the lathe’s motor has come to a full stop.

17. Hang your turning tools on the wall beyond the tailstock end of the lathe. Do not lay them on the bench so that you must reach over the revolving workpiece to select them.

18. 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.

19. Always make sure safety comes first.

20. Complete the hand-sanding of all workpieces before you remove them from the wood lathe.
IV. Electrical information

GROUNDING 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 tool 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 if the tool is properly grounded.

USE ONLY THREE WIRE EXTENSION CORDS that have 3-prong plugs and 3-prong outlets that accept the tool’s plug as shown in Fig. A. 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 IF IT IS, HAVE A CERTIFIED ELECTRICIAN CHECK THE RECEPTACLE.

WARNING: THIS WOOD LATHE MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRICAL SHOCK.
V. Know your wood lathe

1. Faceplate
2. Headstock spindle
3. Headstock
4. Power cord
5. Power switch
6. Speed adjusting rheostat
7. Circuit breaker
8. Motor
9. Tool rest base
10. Base lock lever
11. Bed
12. Tool rest
13. Tailstock
14. Tailstock spindle
15. Hand wheel
16. Spindle lock lever
17. Tailstock cup center
18. Tailstock lock lever
19. Flat wrench
20. Headstock spur center
21. Push out rod
VI. Assembly

UNPACKING (Fig. 1)

1. Carefully remove the wood lathe and loose parts from the box.

**CAUTION:** THE WOOD LATHE IS HEAVY AND MUST BE LIFTED WITH THE HELP OF ANOTHER PERSON.

2. Lay out all parts and check them against the parts listed below. Examine all parts carefully.

**WARNING:** IF ANY PART IS MISSING OR DAMAGED, DO NOT PLUG IN THE WOOD LATHE UNTIL THE MISSING OR DAMAGED PART IS REPLACED.

For your safety, complete the assembly of the wood lathe before plugging it into the power supply.

![Fig. 1](image)

1. Headstock
2. Hex wrench (5mm)
3. Flat wrench
4. Headstock spur center
5. Tailstock cup center
6. Push out rod
7. Faceplate (5 1/4" diameter)
8. Hex wrench (3mm)
9. Tool rest
MOUNTING THE WOOD LATHE ON THE BENCHTOP (Fig. 2)

WARNING: THE WOOD LATHE MUST BE BOLTED TO THE BENCHTOP. OPERATING A WOOD LATHE THAT IS NOT BOLTED DOWN MAY RESULT IN SERIOUS INJURY.

1. In a clear space on the benchtop, measure and mark three hole centers as shown in Fig. 2.

2. Drill clearance holes through the benchtop. Position the lathe on the benchtop.

3. Install the bolts with washers (not included) from underneath the benchtop into the tapped holes in the bottom of the wood lathe frame.

NOTE: (1) The threaded holes are tapped M8x1.25.
(2) To hold the wood lathe securely, the bolts must engage a minimum of 1" into the frame.

LOCK LEVERS (Fig. 3)

The spring-loaded lock levers for the tailstock spindle and the tool rest are of 3-piece construction. The shoulder screw (1) passes through the spring (2) and the handle lever (3). If either lock lever has come loose from the wood lathe or has come apart in shipping, reassemble it and thread into place.

Note: the spring-loaded lock levers on the wood lathe are designed to minimize interference with other lathe parts or 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 handle lever so it is out of the way.
USING FACEPLATE

Your wood lathe is provided with the faceplate (5 1/4" diameter). Mount the workpiece onto the faceplate with brass wood screws. 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, so that when drilling through a workpiece from the tailstock the drill bit can go completely through the workpiece.

Installing or removing faceplate (Fig. 4)
1. When installing the faceplate (1), thread it onto the end of the headstock spindle hand tight.
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. While gripping the push out rod firmly, turn 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 SPUR AND CENTER
1. Insert the shaft of the spur (1) into the hollow center to the headstock spindle. (Fig. 5)
2. Insert the shaft of the tailstock center into the hollow center to the tailstock spindle. (Fig. 6)

WARNING: DO NOT OPERATE YOUR WOOD LATHE UNTIL IT IS COMPLETELY ASSEMBLED AND ADJUSTED ACCORDING TO THE INSTRUCTIONS.
REMOVING SPUR OR CENTER (Fig.7)

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 (1) until the spur or center comes loose.

VII. Adjustment

Variable speed control box (Fig.8)
The variable speed control box contains the electrical connections to the motor, and has three external controls.

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

1. The power switch (1) controls application of electrical power to the wood lathe’s motor.

   A. Move the switch to the ON position to start the motor. Electric current is immediately applied to the motor. WAIT FOR THE 1-3 SECOND DELAY IN ACTIVATION. Then it will begin turning and driving the headstock spindle. How long it takes the motor to reach the speed set by the speed control knob depends on the size and weight of the workpiece.

   B. Move the switch to the OFF position to stop the wood lathe. The electric current is immediately disconnected, but the spindle and workpiece will continue to spin until their motion has stopped.

2. 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 wood lathe cannot be started. Store the key in a safe place when the wood lathe is left idle.

**CAUTION:** NEVER LEAVE THE WOOD LATHE UNATTENDED UNTIL IT HAS COME TO A COMPLETE STOP.
3. The speed control knob (3) can be used to set the speed of the lathe to suit the weight of the workpiece or the type of tool being used. After the lathe is started, turning the knob clockwise will increase spindle speed (up to maximum RPM). Turn the knob counterclockwise will decrease spindle speed (down to minimum RPM). Adjust the knob until the desired workpiece rotation speed is reached.

4. The fuse holder (4) contains the overload protection fuse. If the wood lathe stops suddenly during operation or does not start when the power switch is set to ON position, an overload condition may have caused the fuse to blow. Place the power switch to OFF, unplug the power cord, and remove the cap of the fuse holder to check the fuse.

**WARNING:** REPLACE A BLOWN FUSE ONLY WITH AN IDENTICAL FUSE. USE OF THE INCORRECT FUSE MAY INCREASE THE RISK OF ELECTRICAL SHORT AND FIRE, OR CAUSE THE FUSE TO BLOW FREQUENTLY.

**VIII. Operation**

**TAILSTOCK (Fig.9)**

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 can extend up to 2 1/2” from the tailstock housing. You can move the tailstock spindle (4) by loosening the spindle lock lever (2) and then turning the hand wheel (3). Turning the hand wheel clockwise extends the spindle; turning it counterclockwise retracts the spindle. Lock lever (1) and (2) before operating the wood lathe.

3. 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 (Fig. 10)

1. To move the tool rest base (1), loosen the lock lever (4), and move the base to the right or left and back or front. Tighten the lever (4) when the tool rest base is in the desired position.

2. To adjust the angle of the tool rest (2), loosen the lock lever (3), move the tool rest to the desired position, and tighten the lock lever.

IMPORTANT: MAKE SURE THE TOOL REST IS ADJUSTED TO BE AS CLOSE TO THE WORKPIECE AS POSSIBLE. ROTATE THE WORKPIECE BY HAND TO CHECK CLEARANCE BEFORE TURNING THE WOOD LATHE ON.

IX. Maintenance

WARNING: FOR YOUR OWN SAFETY, TURN THE SWITCH TO THE OFF POSITION AND REMOVE THE PLUG FROM THE ELECTRICAL OUTLET BEFORE PERFORMING MAINTENANCE OR LUBRICATION WORK ON THE WOOD LATHE.

1. 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, also blow sawdust or shavings out of the center of both spindles.

2. A coat of automotive wax 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.
X. Assembly Drawings
## XI. Packing List

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bed</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Retaining plate</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Bolt</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Bolt</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Hand wheel</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>Tailstock</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Spindle lock lever</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Tailstock spindle</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Sleeve</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>Eccentric axis</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>Tailstock</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>Taper rod</td>
<td>1</td>
</tr>
<tr>
<td>13</td>
<td>Ball bearing</td>
<td>1</td>
</tr>
<tr>
<td>14</td>
<td>Tailstock cup center</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>Headstock spur center</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>Tailstock lock lever</td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Faceplate</td>
<td>1</td>
</tr>
<tr>
<td>18</td>
<td>Headstock spindle</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>Ball bearing</td>
<td>1</td>
</tr>
<tr>
<td>20</td>
<td>Retaining ring</td>
<td>1</td>
</tr>
<tr>
<td>21</td>
<td>Retaining ring</td>
<td>1</td>
</tr>
<tr>
<td>22</td>
<td>Ball bearing</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>Headstock</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>Hex nut</td>
<td>2</td>
</tr>
<tr>
<td>25</td>
<td>Base lock lever</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>Headstock spindle nut</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>27</td>
<td>Plate cover</td>
<td>1</td>
</tr>
<tr>
<td>28</td>
<td>Bolt</td>
<td>3</td>
</tr>
<tr>
<td>29</td>
<td>Name plate (Label)</td>
<td>1</td>
</tr>
<tr>
<td>30</td>
<td>Bolt</td>
<td>1</td>
</tr>
<tr>
<td>31</td>
<td>Drive pulley</td>
<td>1</td>
</tr>
<tr>
<td>32</td>
<td>Belt</td>
<td>1</td>
</tr>
<tr>
<td>33</td>
<td>Bolt</td>
<td>1</td>
</tr>
<tr>
<td>34</td>
<td>Motor pulley</td>
<td>1</td>
</tr>
<tr>
<td>35</td>
<td>Power cord</td>
<td>1</td>
</tr>
<tr>
<td>36</td>
<td>Control box variable speed</td>
<td>1</td>
</tr>
<tr>
<td>37</td>
<td>Bolt</td>
<td>4</td>
</tr>
<tr>
<td>38</td>
<td>Bolt</td>
<td>2</td>
</tr>
<tr>
<td>39</td>
<td>Motor plate</td>
<td>1</td>
</tr>
<tr>
<td>40</td>
<td>Motor</td>
<td>1</td>
</tr>
<tr>
<td>41</td>
<td>Warning label</td>
<td>1</td>
</tr>
<tr>
<td>42</td>
<td>Retaining ring</td>
<td>1</td>
</tr>
<tr>
<td>43</td>
<td>Tool rest base</td>
<td>1</td>
</tr>
<tr>
<td>44</td>
<td>Bolt</td>
<td>1</td>
</tr>
<tr>
<td>45</td>
<td>Plate</td>
<td>1</td>
</tr>
<tr>
<td>46</td>
<td>Spring washer</td>
<td>4</td>
</tr>
<tr>
<td>47</td>
<td>Bolt</td>
<td>2</td>
</tr>
<tr>
<td>48</td>
<td>Sleeve</td>
<td>1</td>
</tr>
<tr>
<td>49</td>
<td>Eccentric rod</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>Tool rest</td>
<td>1</td>
</tr>
<tr>
<td>51</td>
<td>Bolt</td>
<td>1</td>
</tr>
<tr>
<td>52</td>
<td>Bolt</td>
<td>1</td>
</tr>
</tbody>
</table>