

V5/22



# **MAS-1** Mortice Kit Owner's Manual

Record the serial number and date of purchase in your manual for future reference.

Serial Number: ..... Date of Purchase: .....



This manual provides critical safety instructions on the proper setup, operation, maintenance and service of your machine. Save this document, refer to it often and use it to instruct others on correct operation.

Failure to read, understand and follow the instructions in this manual may result in serious personal injury - including amputation, electrocution or even death.

It is the owners sole responsibility for the safe use of this machine. The responsibility includes, but is not limited to proper installation in a safe environment; personal training and usage authorisation; proper inspection and maintenance; manual availability and comprehension; the application of safety devices; the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

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# Introduction

## Sherwood

Sherwood delivers reliability. Specified to meet the unique needs of the Australian woodworker. Backed by Sherwood's industry-leading 5-year Warranty, Sherwood's range of woodworking machinery and accessories has something for Australian woodworkers of every kind. Your Sherwood product is guaranteed to deliver you years of solid and dependable performance.

## Disclaimer

Customers should ensure that they take all reasonable safety precautions when operating Sherwood products. Sherwood will not be held liable to you in respect of any personal injury (including without limitation serious injury or death) that you may suffer or sustain directly or indirectly as a result of the use of products sold by us. Nor will we be liable to you in respect of any other losses arising as a result of any such personal injury.

Nothing in this disclaimer shall: limit or exclude our liability for death or personal injury resulting from negligence; limit or exclude our liability for fraud or fraudulent misrepresentation; limit any of our liabilities in any way that is not permitted under applicable law; or exclude any of our liabilities that may not be excluded under applicable law.

## Manual Accuracy

We have made every effort to be exact with the specifications, instructions, drawings, and photographs in theis manual. Our policy of continuous improvement can sometimes mean that sometimes the machine you receive is slightly different to that shown in the manual.

If you find this to be the case, and the difference between the manual and the product leaves you confused or unsure about something, check the retailer's website for an updated version. Alternatively, you can contact us directly at support@sherwoodtools.com.au

## Technical Support

If you have a question about your Sherwood product that isn't covered in this manual, please email us directly at support@sherwoodtools.com.au

## Section 1: Safety

## General Safety Rules

For your own safety, please read and understand this instruction manual before installing and operating the machine.

### General Safety Rules for Machinery

**Owners Manual:** Read and understand this owners manual before using the machine.

**Failure to Read This Manual:** Failure to adhere to the safety instructions in this manual will have a higher risk of serious personal injury or injury to others. Only allow competent users and supervised people to use the machine.

**Always Disconnect the Power:** When the machine is not in use, disconnect the power, remove the switch keys or lock the machine to prevent any unauthorised use - especially if children are around. Child proof your workshop!

**Dangerous Environments:** Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increase the risk of accidents and injury.

**Mental Alertness Required:** Full mental concentration is required at all times for the safe operation of machinery. Never operate a machine under the influence of drugs or alcohol, when tired or when distracted.

**Electrical Equipment Injury Risk:** You can be shocked, burned or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow a qualified service professional to complete electrical installation or repair work. Always disconnect the power before accessing or exposing electrical equipment.

**Disconnect the Power First:** Always disconnect the machine from the power supply before making adjustments, changing tooling or servicing the machine. This prevents an injury from unintended start-up or contact with live electrical components.

**Eye Protection:** Always wear ANSI approved safety glasses or face shield when operating or observing machinery to reduce the risk eye injury or blindness from flying particles. Your everyday eye glasses are NOT approved safety protection.

**Wearing Proper Apparel:** Do not wear clothing, apparel or jewelery that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce risk of slipping and losing control or accidentally contacting the cutting tool or moving parts.

**Hazardous Dust:** Dust created by machinery operation can cause cancer, birth defects or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. Always wear a AS/NZS-approved respirator to reduce risk.

**Hearing Protection:** Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing damage or loss.

**Remove Adjusting Tools:** Tools left on machinery can become dangerous projectiles upon start-up. Never leave chuck keys, wrenches or any other tools on the machine. Always verify removal before starting!

**Use Correct Tool for the Job:** Only ever use the machine for its intended purpose. Do not force it or use any attachment to complete a job for which it was not designed. Never make any unapproved modifications – modifying the machine or using it differently that it is intended may result in malfunction or mechanical failure that can result in personal injury or death!

**Awkward Positions:** Keep proper footing and balance at all times when operating the machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

**Children and Bystanders:** Keep children and bystanders at a safe distance from the work area. Stop using the machine if they become a distraction.

**Guards and Covers:** Guards and covers reduce accidental contact with moving parts and flying debris. Make sure they are properly installed, undamaged and working correctly before operating the machine.

**Forcing Machinery:** Do not force the machine. It will do the job more safely and more efficiently at the rate for which it was designed.

**Never Stand on the Machine:** Serious injury may occur if the machine is tipped or if contact is unintentionally made with the cutting tool.

**Stable Machine:** Unexpected movement during operation greatly increases the risk of injury loss of control. Before starting, verify that the machine is stable. If a mobile base is used, ensure this is locked.

**Use Only Recommended Accessories:** Consult this owner's manual or the manufacturer for the recommended accessories. Using improper accessories will increase the risk of serious injury.

**Unattended Operation:** To reduce the risk of accidental injury, turn the machine OFF and ensure all moving parts are completely stopped before walking away. Never leave a machine running while unattended.

**Maintain with Care:** Follow all maintenance instructions and lubrication schedules to keep the machine in good working condition. A machine that is improperly maintained could malfunction, leading to personal injury or death.

**Damaged Parts:** Regularly inspect machine for damaged, loose or mis-adjusted parts - or and condition that could effect safe operation. Immediately repair or replace before operating the machine. For your own safety , DO NOT operate a machine with damaged parts.

**Maintain Power Cords:** When disconnecting cord-connected machines from the power supply, hold and pull the plug and not the cord. Pulling the cord may damage the wires inside. Do not handle the cord or the plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals and wet or damp locations.

**Experiencing Difficulties?** If at any time you experience difficulties performing the intended operation, stop using the machine immediately! Contact our Technical Support on support@sherwoodtools.com.au

# Section 2: Contents of Carton

## Key Features

- **1.** Chisel holder
- **2.** Collar locking handle

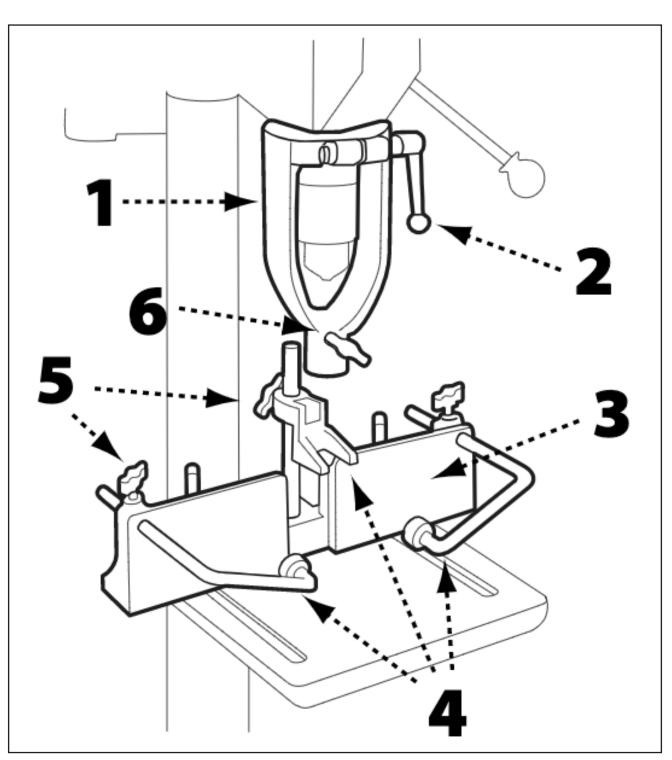
#### 3. Fence

**4.** Hold-down clamp

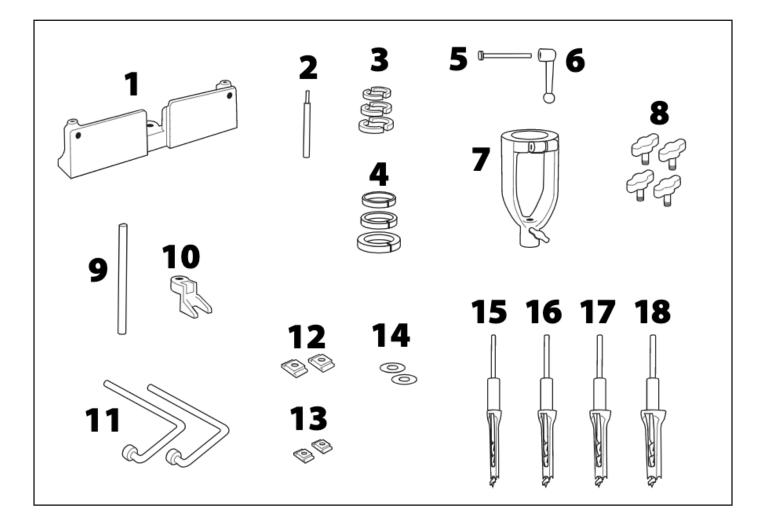
adjustment screws

5. Hold-down

**6.** Chisel lock



#### Inventory



- **1.** Fence (1)
- **2.** Quill alignment pin (1)
- **3.** Two-piece bushings (Set of 3) (1)
- **4.** Split bushings (Set of 3) (1)
- **5.** Square head screw (1)
- **6.** Collar Locking Handle (1)
- **7.** Chisel holder (1)
- **8.** Thumb screws (4)
- **9.** Center hold dn shaft (1)

- **10.** Center hold down (1)
- **11.** Hold down clamps (2)
- **12.** Large T-nuts (2)
- **13.** Small T-nuts (2)
- **14.** Flat washers (2)
- **15.** 1/4" chisel and drill bit (1)
- **16.** 5/16" chisel and drill bit (1)
- **17.** 3/8" chisel and drill bit (1)
- **18.** 1/2" chisel and drill bit (1)

## Set Up: Assemble, Align And Install Chisel Holder

Insert the small end of the quill alignment pin **(A)** into the drill chuck and tighten the chuck as shown in **Figure 1**.

Use variations combinations of two-piece and split bushings **(B)** with the chisel holder to find the combination that matches the diameter of the quill. **See Figure 2**. When fitted with the right combination, the chisel holder should fit snugly around the quill.

**NOTE:** The seams in the bushings and inserts should align with the split in the collar of the chisel holder.

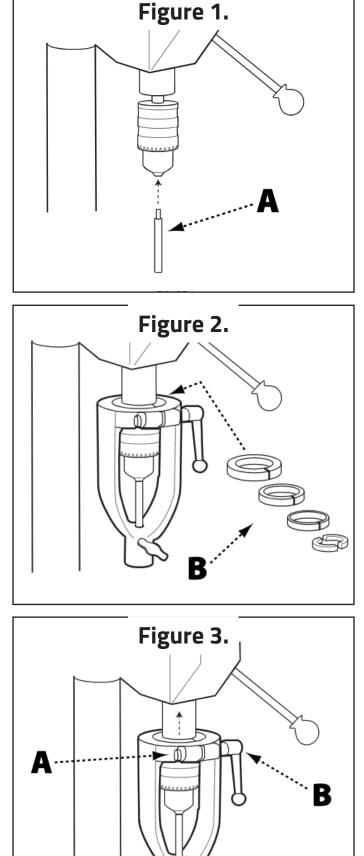
#### Refer to Figure 3 for steps 3-6.

Insert the square head screw (A) into the collar of the chisel holder. Fit the indexed locking handle (B) over the exposed threads in the screw (Do not tighten).

Feed the thumb screw **(C)** into the threaded hole at the bottom of the chisel holder.

Maneuver the assembled chisel holder up and over the quill alignment pin and the quill. The bottom of the chisel holder collar should be flush with the bottom of the quill. Tighten the thumb screw to secure the quill alignment pin to the chisel holder.

Tighten the collar locking handle to secure the chisel holder to the quill



## Set Up: Mounting Fence

**1.** Position fence on top of drill press table and align holes on ends with slots in table.

**2.** Secure fence in place using adjustable handles and appropriate T-nuts for your table.

### Set Up: Making a Mortise

Proper alignment of the workpiece and chisel is essential to making good mortise and tenon joints. The instructions below describe one method of creating square joints with an evenly spaced mortise. Place a spoil board on top of the drill press table if a through-mortise is to be made.

**1.** Install chisel into cone, rotate it so opening is positioned toward operator, and secure it with the knob.

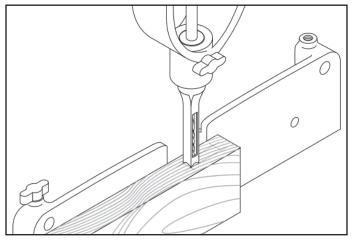
**2.** Secure drill bit into drill chuck. Slide the drill bit into the chisel as far as it will go and then allow it to drop back down 1/32" - 1/16". If this is not done, wood chips generated by the cutting action will have no place to go, resulting in excessive heat and damage to the tool.

**3.** Measure the surface of the workpiece that is to have the mortise. Subtract the size of the mortise chisel and divide this number in half.

Workpiece = .75" Chisel = -.375" .375"÷2 = .1875"

**4.** Mark the workpiece where you want the mortise and clamp it to the fence.

**5.** Loosen the adjustable handles on the fence. Lower the chisel with the spider handles on the drill press and make adjustments to the fence until the marks on the workpiece are aligned with the chisel as shown in the figure below. Tighten the adjustable handles. If the fence cannot be adjusted close enough, adjust the table on the drill press until the chisel and marks are aligned.



Aligning the chisel and marks.

**6.** Set the speed of the drill press between 900 and 1200 RPM.

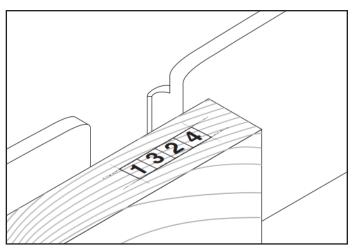
**7.** Carefully inspect the alignment. When you are satisfied that the setup is worthy of being tested, replace the workpiece with a scrap piece of lumber that is the same size. Attach the hold down bracket and rod(s), then make a cut.

**8.** Watch the chips coming out of the slot on the shank of the chisel. If you don't see chips, or there is a lot of smoke, raise the chisel, turn off the drill press and lower the drill in the chisel. If burning still occurs, lower the drill press speed. Some burning may occur with certain species of wood regardless of the settings, but you should see wood chips while cutting mortises with this tool.

**9.** Check the placement of the cut and make any adjustments to the setup before cutting a valuable workpiece.

## Set Up: Cut Sequence

Cutting mortises that are wider than the chisel must be done in proper sequence for best results. Below is a diagram on one possible sequence that will produce good results.



Staggered cut sequence.

## Set Up: Specifications

This drill press fits the following quill flange/collar diameters: 2.95" (75mm) 2.60" (66mm) 2.36" (60mm) 2.17" (55mm) 2.00" (50mm) 1.89"(48mm) 1.57" (40mm)

## Section 4: Warranty

## Sherwood Warranty Statement

Sherwood Machinery arrived in Australia in 1997 to provide a wide range of woodworking machinery to discerning woodworkers and craftspeople.

All Sherwood machines and accessories are carefully specified to meet the unique challenges of Australian woodworking, and come from OE manufacturers who have a proven track-record in reliability and quality.

With a five-year warranty as standard across all products, a Sherwood machine will deliver years of good, solid and dependable performance.

#### Warranty and Service

If your Sherwood product has a warrantable fault, please contact the retailer that it was purchased from.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

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