



# OWNER'S MANUAL



## B2203 HOLLOW CHISEL MORTISER



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## **GENERAL SAFETY INSTRUCTIONS**

**EXTREME CAUTION SHOULD BE USED IN OPERATING ALL POWER TOOLS. KNOW YOUR POWER TOOL, BE FAMILIAR WITH ITS OPERATION. READ THE OWNER'S MANUAL AND PRACTICE SAFE USAGE PROCEDURES AT ALL TIMES.**

- ❑ **CONNECT** your machine **ONLY** to the matched and specified power source.
- ❑ **WEAR SAFETY GLASSES, RESPIRATORS, HEARING PROTECTION and SAFETY SHOES** when operating this machine.
- ❑ **DO NOT** wear loose clothing or jewellery when operating machinery.
- ❑ **DO NOT** force tool – Tools work best when allowed to perform at natural pace.
- ❑ **A Safe Environment is important.** Keep the area free of dust, dirt and other debris in the immediate vicinity of the machine.
- ❑ **BE ALERT!** Do Not Use prescription or other drugs that may affect your ability or judgement to safely use this machine.
- ❑ **DISCONNECT** the power source when changing drill bits, hollow chisels or making other adjustments or repairs.
- ❑ **NEVER** leave an operating tool unattended.
- ❑ **NEVER** reach over the table when the tool is in operation.
- ❑ **NEVER** make crosscuts with the rip fence in place.
- ❑ **NEVER** attempt cut material that is warped or twisted.
- ❑ **NEVER** lean or stand on tool
- ❑ **ALWAYS** keep blades, knives or bits sharp and properly aligned.
- ❑ **ALWAYS** keep all safety guards in place and ensure their proper function.
- ❑ **ALWAYS** use push sticks and featherboards to safely feed your work through the machine.
- ❑ **ALWAYS** make sure that any tools used for adjustments are removed before operating the machine.
- ❑ **ALWAYS** secure your work with the appropriate clamps or vises.
- ❑ **ALWAYS** keep bystanders safely away while operating machinery.
- ❑ **THINK SAFETY. WORK SAFELY.** Never attempt a procedure if it does not feel safe or comfortable.

## **INTRODUCTION**

As part of a growing line of Craftex woodworking equipment, we are proud to offer you the B2203 Hollow Chisel Mortiser. The Craftex name guarantees **Craft Excellence**. By following the instructions and procedures laid out in this owner's manual, you will receive years of excellent service and satisfaction. The B2203 Mortiser is a professional tool that is designed to help you make accurate mortises every time its put to use and incorporates the following features.

### **Features**

The B2203 has a powerful 1/2HP, 5.6 Amp, 120V motor that turns at 1725 RPM

Large 13 3/8" x 6" hardwood table

Three hollow chisels and drill bits included (1/4", 3/8" & 1/2")

Dual access doors for easier chisel and drill bit changing

Micro fence depth adjustment control knob

Positive work piece hold-down clamp

Depth control stop

Fully adjustable handle with 5" Rack & Pinion travel

Additional 1/2" Morse Taper chuck and extension shaft including sleeve

Accessory rack

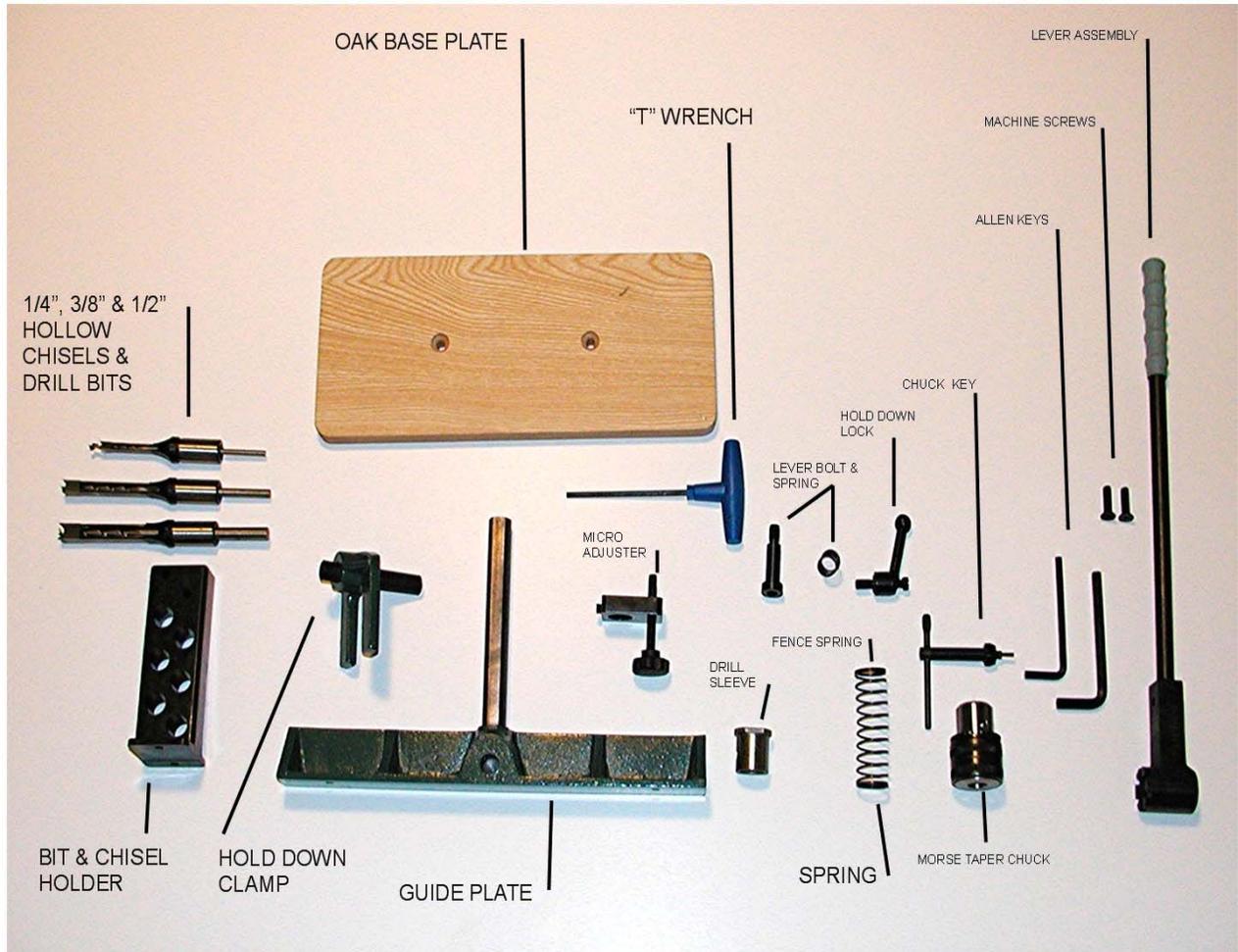
Bench-top mounting holes provided in cast iron base

Safety on/off switch to prevent unauthorized use

Includes allen keys, chuck keys and 'T' wrench

## PACKAGING CONTENTS

YOUR B2203 HOLLOW CHISEL MORTISER TOOL PACKAGE CONTAINS THE FOLLOWING ASSEMBLY TOOLS AND COMPONENTS ILLUSTRATED BELOW



## ASSEMBLY

Carefully un-pack all items in the package and, using mineral spirits, clean all parts to remove the preservative lubricant. Do not un-pack the hollow chisels and drill bits at this time.

Assemble the lever assembly to the mortiser body using the large lever bolt and small spring and tighten with the allen key provided. Once tightened, the lever may be re-positioned.

While holding the lever assembly in the 'down' position, cut the nylon tie-wraps to release the packing block. Pull the lever down to free it. Save the block for later use.

Assemble wood base to cast-iron base using the 2 large Phillips bolts.

Attach the tool rack to the upper left side of the mortiser body with the 2 Phillips round-head bolts and washers in the screw holes provided.



Install the fence through the round opening above the wood base, slide the large spring on the fence shaft between the back of the fence and the lock-down lever.

Install the micro adjustment control on the fence shaft behind the lock-down lever. Tighten the allen screw to keep the micro-adjustment in place. Note: An optional lock-down lever is provided to replace the allen screw.

The B2203 has two access doors to allow access to the upper chuck for chisel and drill bit changing.

The B2203 is equipped with 2 drill chucks; one is fixed in the B2203 Mortiser and the other is included in a separate package. The fixed chuck has an extension arbor installed in it. For normal mortising with the included hollow chisels; the extension should be removed by using the chuck key. The extension arbor may be stored in the tool rack. An extra chuck is provided and has a Morse taper to fit on the extension if and when required. The Morse-taper is a *pressure* fit and should be tightened in a bench vise.



## INSTALLING THE HOLLOW CHISELS

The hollow chisels/drill bits are very sharp and should be handled with extreme caution. The tool should be disconnected from the electrical power source before performing any adjustments or installing hollow chisels.

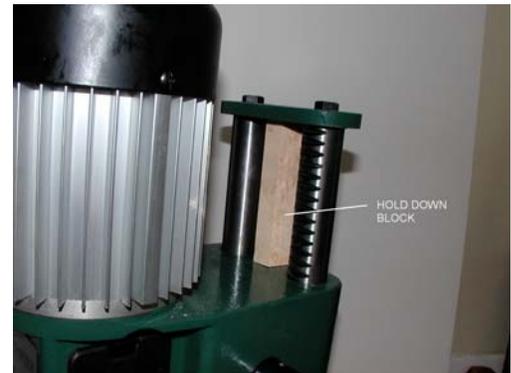
Remove one of the hollow chisels (1/4", 3/8" & 1/2") from the package being sure to keep the safety cap on the chisel point and lay aside.

Open one or both panels on the body of the B2203 to access the drill chuck and using the chuck key provided, open the chuck to install the hollow chisel.

Insert the chisel/drill bit up through the body until the chisel is home and tighten the allen screw on the left side to secure it. Tighten the drill chuck to secure the drill being sure that the drill bit is lower than the chisel by 3 – 5 mm.



Cut a block of scrap wood 1" x 1" x 4 1/2" to be used as a wedge to keep the mortise motor body in the 'down' position. Install the block between the 'T' frame and the motor body.



Square the hollow chisel with the fence by slightly loosening the chisel set-screw and using a tri-square, align the chisel.



## OPERATING INSTRUCTIONS

The B2203 Hollow Chisel Mortiser is equipped with a safety on/off switch to prevent unauthorized persons from turning the machine on. In the off position, remove the yellow key portion of the switch and store in a safe place.

Install the appropriate hollow chisel/drill bit by following the instructions in the “Assembly Instructions” pages of this manual. Keep the safety cap on the chisel until you are ready to use the tool.

Adjust the fence forward or back and tighten the lock lever. The micro-adjustment may also be used. Once set, tighten both lock levers securely.

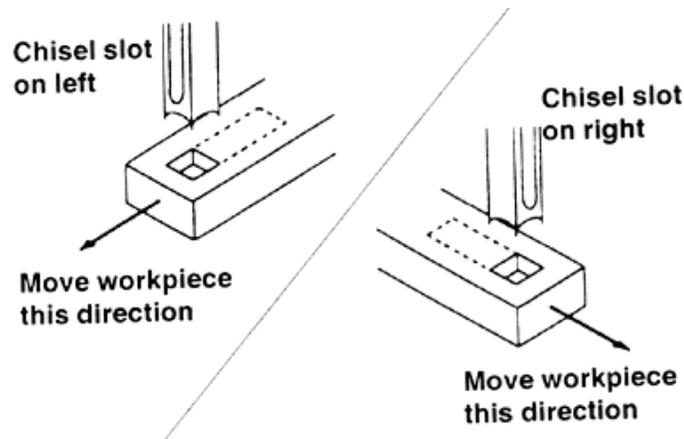
Adjust the hold-down clamp by loosening the allen screws in the rear of the clamp and on the fence frame. The clamp should hold the work piece securely.

Note: An owner-built auxiliary base table may be required to raise your work piece to securely clamp it down.

Adjust the depth-stop located on the right-hand post by releasing the lock knob.

The lowering handle may be re-positioned as desired by pulling the axle portion away from the body and fitting it in any of the notches.

Turn the machine on and slowly feed the chisel & bit into the work piece by pulling down the handle. After the initial cut, the work piece is moved along for successive cuts. The direction of the movement should allow the chips to be clear. Follow the diagram so that the slot in the chisel is releasing chips into the already cut part of the work piece.



**Caution** – Do not have the chisel slot against the blind end of the mortise, as the chips won't be able to clear the chisel. This may create some problems such as overheating and/or possible breakage of the chisel/bit.

When making deep mortise cuts, it is always a good idea to keep a scrap piece of wood underneath your work piece for support and assurance.

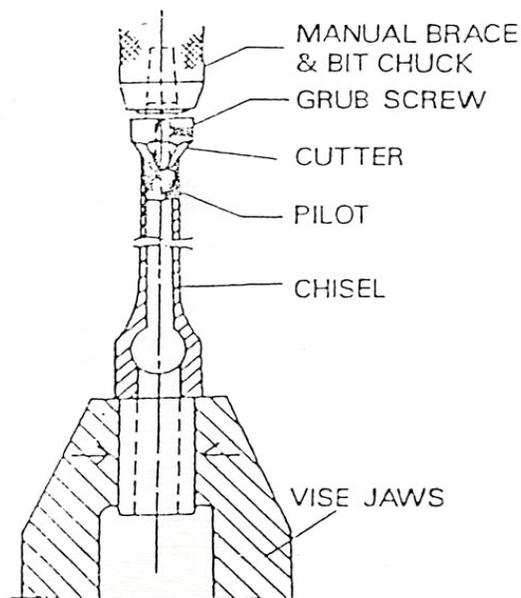
Like any quality machinery, the B2203 Hollow Chisel Mortiser requires some maintenance. Vacuum the motor vents to remove sawdust, lubricate the rack & pinion portion of the vertical post and the guidepost with a quality grease.

The Hollow Chisels must be kept very sharp to produce quality mortises. Your Busy Bee store has the appropriate tools available for you to do it yourself.

## Sharpening your Chisel and Drill Bit

### Sharpening your Chisel

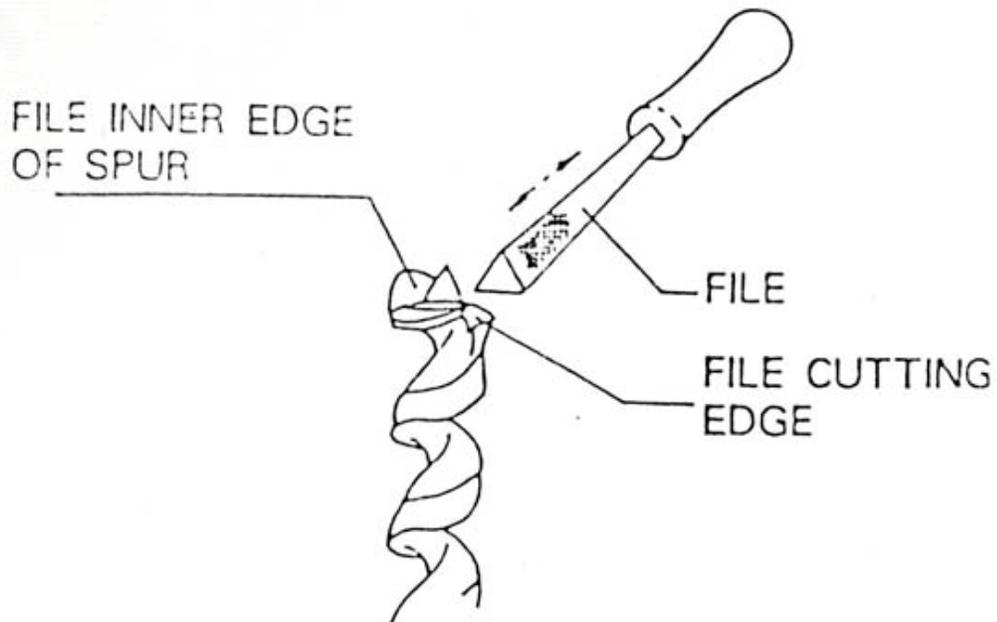
- Sharpening is required when your chisel bits or cutting lip becomes dull or blank.
- Put the chisel into a soft jawed vise. To avoid damage to the chisel, DO NOT over tighten the vise.
- Fit the cutter into the brace and place it to the end of the chisel as shown the diagram. Fit the correct pilot in cutter and tighten grub screw.



- Press the tool cutter properly onto the chisel. Turn 2 to 3 rounds of the brace and sharpen the chisel. If the chisel bit is not sharp enough, repeat this step until the bit is sharp enough.
- If you don't have the type of sharpening tool shown in the diagram, a tapered sand stone disc would be helpful. Fix it onto a electric drill and sharpen the bit slowly. You can also use a small file.
- Remove the chisel from the vice jaws and use a fine slip stone to remove and burrs from the outer face of the chisel so as to make the chisel much sharper.

### Sharpening your Drill Bit

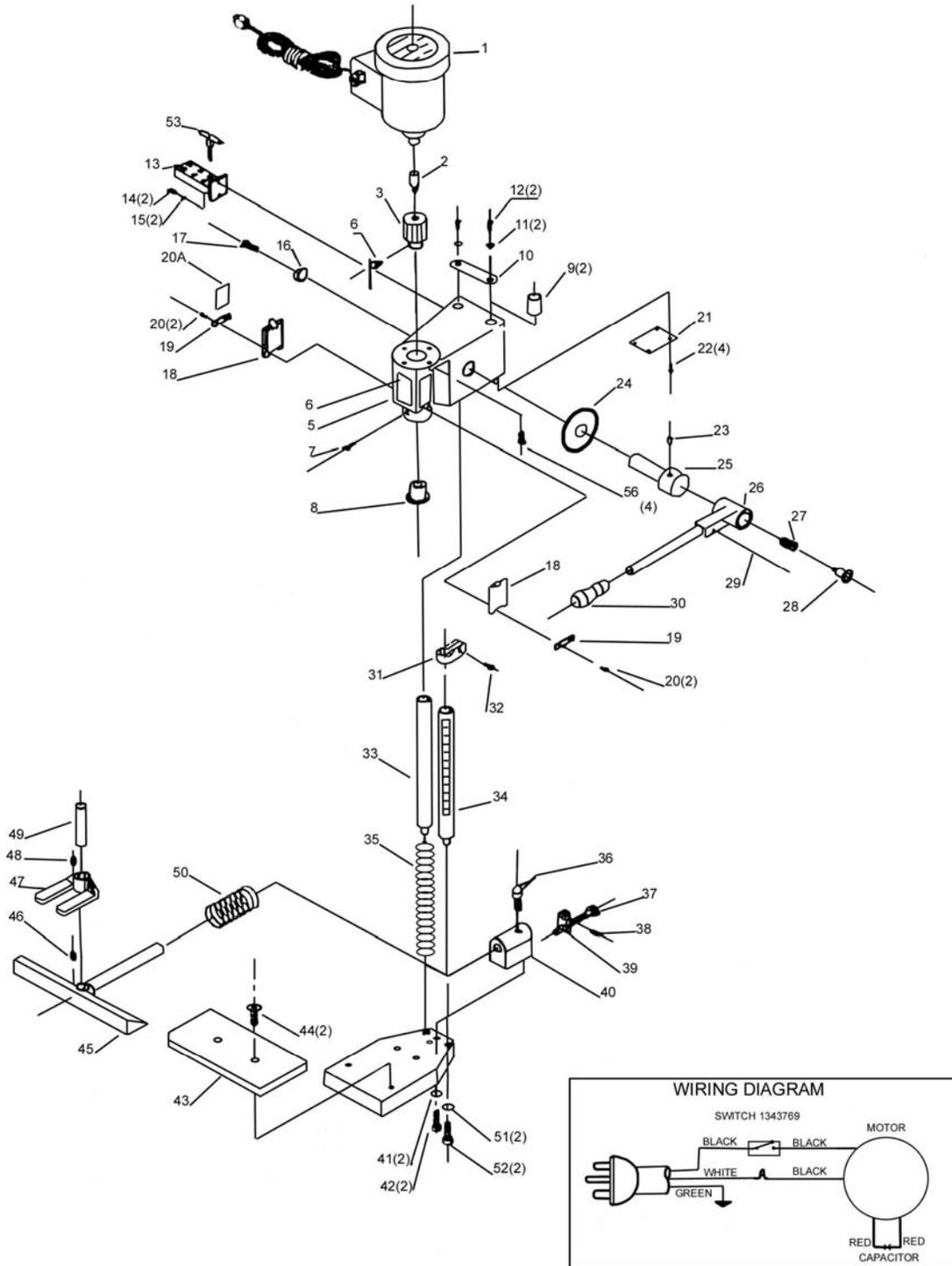
- File the drill bits cutter edge. (refer to diagram)
- File the inner edge of the spur.
- Like the chisel, use a slip stone to remove any edges, hence making the bit much sharper.



(Sharpening drill bit)

# SCHEMATIC DIAGRAM

## B2203 HOLLOW CHISEL MORTISER



## **PARTS LIST**

### **B2203 HOLLOW CHISEL MORTISER**

- |                                  |                           |
|----------------------------------|---------------------------|
| 1. Motor Assembly.               | 44.Flat Head Screw        |
| 2. Adapter.                      | 45.Fence                  |
| 3. Drill Chuck.                  | 46.Hex Socket Set-Screw.  |
| 4. Drill Chuck Key.              | 47. Hold-Down.            |
| 5. Head.                         | 48.Hex Socket Set-Screw.  |
| 6. Label.                        | 49. Rod.                  |
| 7. Chisel Set-screw.             | 50.Spring.                |
| 8. Bushing.                      | 51.Lock Washer.           |
| 9. Guide Sleeve.                 | 52. Hex head Screw.       |
| 10. Position Plate.              | 53.'T' Handle Wrench.     |
| 11. Washer.                      | 54. Hex Socket Head Screw |
| 12. Hex Bolts (2).               |                           |
| 13. Accessory Rack.              |                           |
| 14. Phillips Machine Screws (2). |                           |
| 15. Flat Washers (2).            |                           |
| 16. Washer.                      |                           |
| 17. Flat-Head Screw.             |                           |
| 18. Cover.                       |                           |
| 19. Hinge.                       |                           |
| 20. Pan-Head Screw.              |                           |
| 21. Lower Cover Plate.           |                           |
| 22. Pan-Head Screw.              |                           |
| 23. Spring Pin.                  |                           |
| 24. Gear.                        |                           |
| 25. Hub Assembly.                |                           |
| 26. Handle Assembly.             |                           |
| 27. Spring.                      |                           |
| 28. Shoulder Bolt.               |                           |
| 29. Spring Pin.                  |                           |
| 30. Handle Grip.                 |                           |
| 31. Spacing Sleeve.              |                           |
| 32. Knob.                        |                           |
| 33. Spindle.                     |                           |
| 34. Toothed Spindle.             |                           |
| 35. Spring.                      |                           |
| 36. Handle Assembly.             |                           |
| 37. Special Bolt.                |                           |
| 38. Hex Socket Set-Screw.        |                           |
| 39. Guide.                       |                           |
| 40. Bracket.                     |                           |
| 41. Lock Washer.                 |                           |
| 42. Hex Head Screw.              |                           |
| 43. Table.                       |                           |



## WARRANTY

### CRAFTEX 2 YEAR LIMITED WARRANTY

Craftex warrants every product to be free from defects in materials and agrees to correct such defects where applicable. This warranty covers **two years** for parts and 90 days for labour (unless specified otherwise), to the original purchaser from the date of purchase but does not apply to malfunctions arising directly or indirectly from misuse, abuse, improper installation or assembly, negligence, accidents, repairs or alterations or lack of maintenance.

*Proof of purchase is necessary.*

All warranty claims are subject to inspection of such products or part thereof and Craftex reserves the right to inspect any returned item before a refund or replacement may be issued.

This warranty shall not apply to consumable products such as blades, bits, belts, cutters, chisels, punches etceteras.

Craftex shall in no event be liable for injuries, accidental or otherwise, death to persons or damage to property or for incidental contingent, special or consequential damages arising from the use of our products.

### RETURNS, REPAIRS AND REPLACEMENTS

To return, repair, or replace a Craftex product, you must visit the appropriate Busy Bee Tools warehouse. Craftex is a brand of equipment that is exclusive to Busy Bee Tools.

For replacement parts directly from Busy Bee Tools, for this machine, please call 1-800-461-BUSY, and have your credit card and part number handy.

All merchandise will be subject to a minimum charge of 15% for re-stocking and handling with the following qualifications.

- Returns must be pre-authorized by us in writing.
- **We do not accept collect shipments.**
- Items returned for warranty purposes must be insured and shipped pre-paid to the nearest warehouse (see locations on inside back cover of this manual).
- Returns must be accompanied with a copy of your original invoice as proof of purchase. Returns must be in an un-used condition and shipped in their original packaging a letter explaining your reason for the return. Incurred shipping and handling charges are not refundable.
- Busy Bee will repair or replace the item at our discretion and subject to our inspection.
- Repaired or replaced items will be returned to you pre-paid by our choice of carriers.
- Busy Bee reserves the right to refuse reimbursement or repairs or replacement if a third party without our prior authorization has carried out repairs to the item.
- Repairs made by Busy Bee are warranted for 30 days on parts and labour.
- Any unforeseen repair charges will be reported to you for acceptance prior to making the repairs.
- The Busy Bee Parts & Service Departments are fully equipped to do repairs on all products purchased from us with the exception of some products that require the return to their authorized repair depots. A Busy Bee representative will provide you with the necessary information to have this done.
- For faster service it is advisable to contact the nearest Busy Bee location for parts availability prior to bringing your product in for repairs.



## Optional Accessories Available Exclusively at Busy Bee Tools

**Mortising Chisels** 4 popular sizes each complete with a drill bit

Model	Size	Collar
B320014	1/4"	3/4"
B320516	5/16"	3/4"
B320038	3/8"	3/4"
B320012	1/2"	3/4"



### Drill Stand

Model B956



- This drill stand works almost anywhere. On a bench or mounted on pegboard/wall for easy drill bit access.
- Made of high strength ABS black plastic
- Indexed for 29 drills from 1/16" – 1/2" by 64ths

### Drill Gauge

Model B2021



- Quickly and easily identify drill bits sizes.
- Made of heavy gauge steel, machined and ground to close tolerances
- Hole sizes and decimal equivalents are permanently etched on the face
- 5" x 2" wide approximately
- Fractional size drills from 1/16" to 1/2" by 64ths

### 12" Dust Blower

Model B1780



- Blow away unwanted dust
- Snap-lock hose allows you to bend and position the wide nozzle anywhere
- Increase built-in airflow adjuster
- Fit 3/8" air hose
- Magnetic base for ease of use almost anywhere

*(Dill not included)*

## Notes

