KEENCUT

# ARTIST MAT CUTTER

GB **INSTRUCTION MANUAL**


KEENCUT

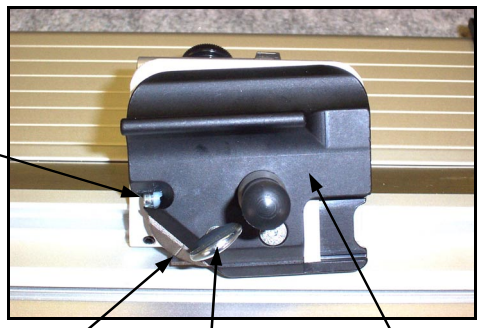
**THE WORLD'S FINEST CUTTING MACHINES**

# User Instructions

Contents

# User Instructions

## Know your **ARTIST** Mat Cutter




Thank you for choosing a Keencut Artist Mat Cutter. Every effort has been made to bring you a superbly built product with the promise of many years of good service. Please read these instructions carefully in order to obtain maximum benefit from your machine and remember, in case of difficulties ask your distributor or Keencut Limited for assistance.


# User Instructions

## Getting Started - The Slipmat & Blade Information

### THE SLIPMAT

A Slipmat (A) is used under the matboard (B) when bevel cutting, this ensures crisp clean cutting.

Make it from standard matboard avoid using dense matboard.

Size - approximately 15cm (6") wide and at least 5cm (2") longer than the longest mat you are going to cut.

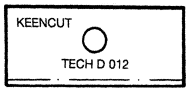
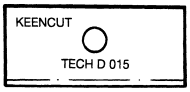
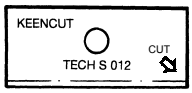
When using - ensure the white side is uppermost and replace it when the surface damage becomes obvious.


**BLADES ARE ONE OF THE MOST CRITICAL PARTS OF THE MACHINE**, in all cases the blade used should be the one most suited to the job - when bevel cutting, a precision ground and honed blade is required with an oil free surface (many blades are packed with an oil film to protect them) and the surface should be corrosion free.

The hardness and toughness of the blade is also critical.

All these factors add to the manufacturing cost of quality blades, however the option to use inexpensive blades leaves quality to chance and can increase wastage.

**BEVEL CUTTING** blades used on the Artist are rectangular and come in three varieties:-

| | | | |
|---|---|---|---|
|   | **TECH D 012** | **D**ouble ground edge 0.**012**" thick. (knife edge)  | For general purpose cutting on most matboard (some are supplied with your machine) |
|   | **TECH D 015** | **D**ouble ground edge 0.**015**" thick. (knife edge)  | Particularly useful for thicker soft materials like foam centred board and double thickness standard matboard. |
|    | **TECH S 012** | **S**ingle ground edge 0.**012**" thick. (chisel edge)  | Suitable for many thicker, dense matboards such as conservation board and museum board. |

 Please note: When using the Tech S.012 blades you can only use the one tip as indicated on the blade.

If you require sample blades contact Keencut direct and a small quantity will be sent F.O.C We would be pleased to know your results!

**BLADE DEPTH** is critical when bevel cutting. Too deep and hooking will occur, too shallow and the blade will not penetrate. The tip of the blade should cut through the matboard and score the slip mat about 0.5 - 1 mm (1/64" - 1/32") deep. The method of adjustment is explained later.

**HOOKING** is when a curved cut is produced at the beginning of a bevel cut. This is caused by the blade bending or moving sideways when being pushed into the matboard, the blade then springs or moves back to its correct position as it begins to travel down the cut.

# User Instructions

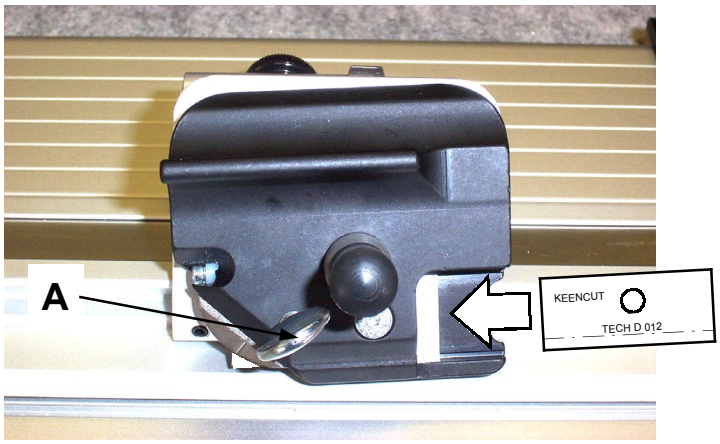
## Bevel Cutting - Setting the Blade

### INSTALLING THE BLADE

Firstly remove the blade left in the holder from test cutting, slacken the Blade Clamping Screw (A) and slide the blade out from the back of the Bevel Blade Holder.

Slide a new blade in from the back of the holder, push it forward until it reaches the blade stop.

Fasten the Blade Clamping Screw.

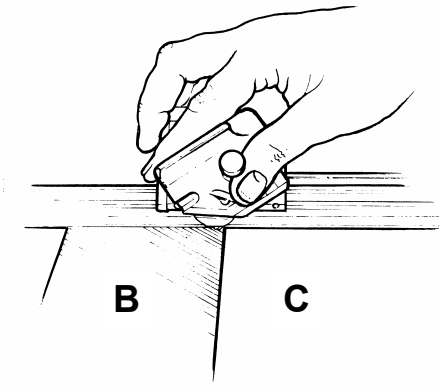



### ADJUSTING THE BLADE DEPTH

Place the slipmat (B) and matboard (C) in the machine as for normal cutting. Slide the cutter head towards the top edge of the matboard.

Depress the blade holder fully to penetrate into the slipmat at a point close to the edge of the matboard.

Inspect the amount of blade penetration into the slipmat, It should be 0.5 - 1mm (1/64" - 1/32").

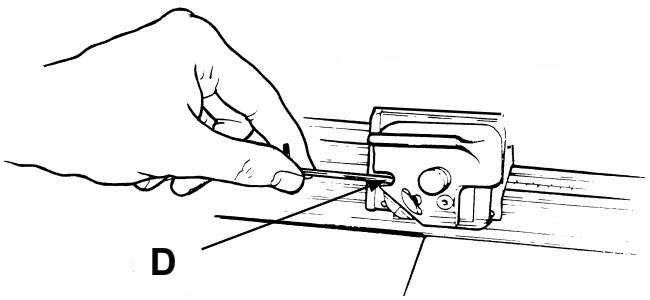



### IF NOT

### ADJUST THE BLADE DEPTH

Slacken the Blade Clamping Screw. Using the 2.5mm hexagon wrench, turn the Blade Depth Adjustment Screw (D) clockwise to reduce the depth, counter-clockwise to increase it.

Press the blade forward against the blade stop, tighten the Blade Clamping Screw and check the blade depth.




**NOTE:**
**The Artist has been tested and adjusted to give accurate results on a standard matboard. You may need to adjust the machine to give accurate cutting if your matboard is of a slightly different thickness to that of the test mat.**

**TIP** Change your blade regularly. The cost of half a blade (two cutting tips per blade) compared to matboard is negligible.

# User Instructions

## Bevel Cutting - Cutting a Simple Mat 1

IMPORTANT

**SQUARENESS**

Before cutting the inside of the mat it is essential that the blank is accurately cut to size and has square corners. Do not rely on full size sheets of Mat Board being square and always check the squareness of pre-cut blanks. The Artist Matcutter is not fitted with a vertical cutter (for cutting the outside of the mat) as standard, it is available as an option.

**See the 'Optional Accessories' section.**

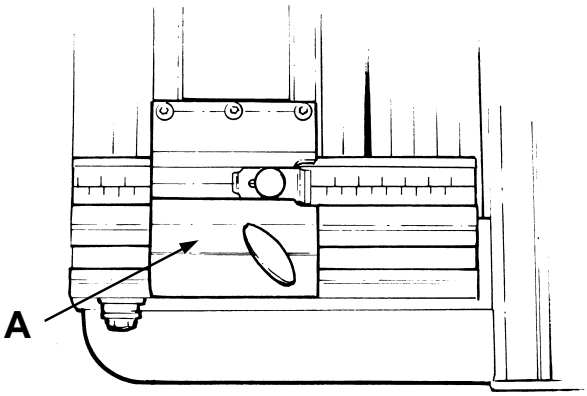
**The following example shows how to cut a simple mat with a border of 3 (cms or inches) on all four sides.**

### 1 CUT THE BLANK

It is important to cut the blank of matboard accurately to size with square corners. Any size of blank larger than 20cms (8") square will suit this example.

### 2 SET THE MATGUIDE

**A**fter checking the blade depth place a slip mat in position on the cutter.
Lock the Matguide Limit Stop (A) on 3 (cms or inches) - this sets the border width.

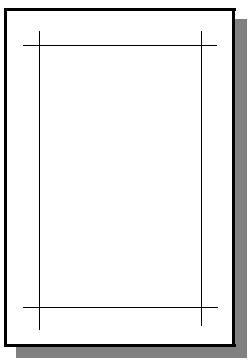



### 3 DRAW THE CUTTING LINES

**L**ift the cutter bar using the handle and place the matboard coloured face down on the slip mat.

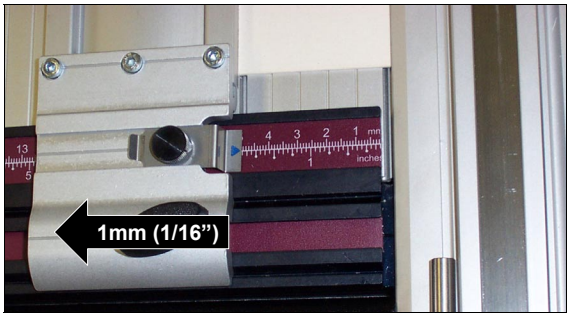
Ensure the left hand edge of the matboard is touching the mat guide and lower the cutter bar to clamp the matboard in position.

Draw a pencil line down the length of the matboard. Rotate the board and repeat drawing a line along each of the four sides of the matboard.

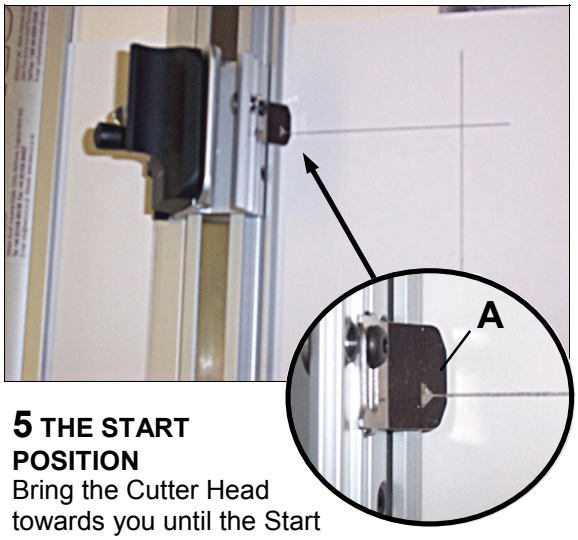


# User Instructions

## Bevel Cutting - Cutting a Simple Mat 2

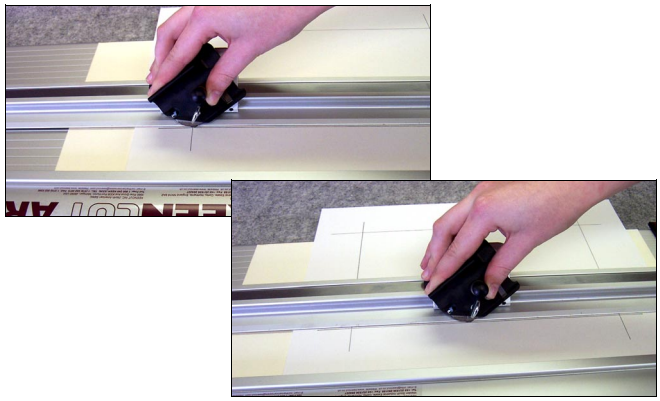



**4 READJUST THE MATGUIDE**
The blade cuts about 1mm (1/16") to the left of the Cutter Bar, move the Matguide to the left by that amount and when cutting the blade will cut down the pencil line.

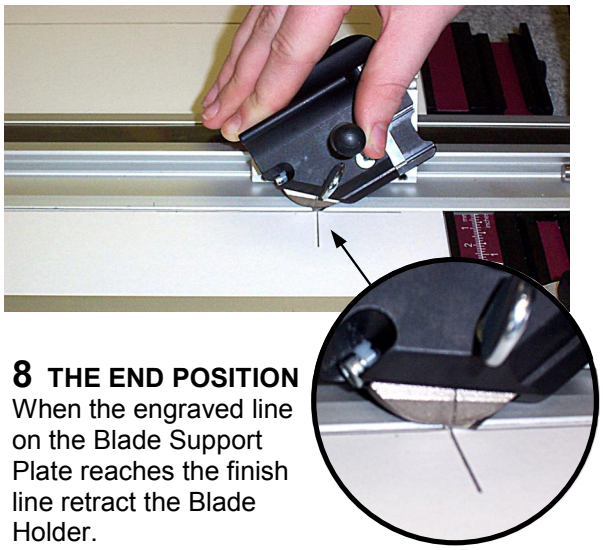



**5 THE START POSITION**
Bring the Cutter Head towards you until the Start Indicator (A) lines up with the pencil line.

**6 INSERT THE BLADE**
With your left hand, grip across the Cutter Bar in front of the Cutter Head, and tight to it, to prevent the Cutter Head moving away from you when the blade is inserted. Tip the Bevel Blade Holder forward to insert the blade in the mat.

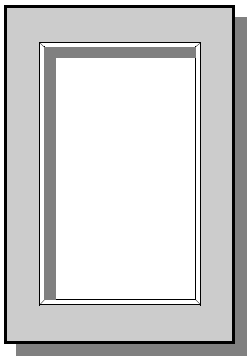


**7 MAKE THE CUT**
Pull the Cutter Head towards you using constant downward pressure to make the cut.



**8 THE END POSITION**
When the engraved line on the Blade Support Plate reaches the finish line retract the Blade Holder.

**9 CUT THE OTHER THREE SIDES**
Turn the matboard a quarter of a turn and cut the other three sides in the same way.

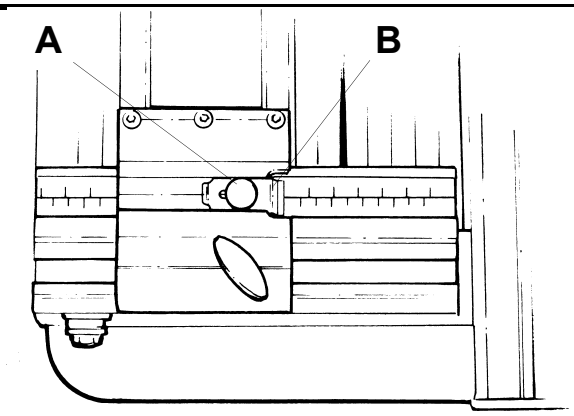


# User Instructions

## Bevel Cutting - Calibration

Firstly, measure the border width on the coloured face of the mat. If the border width is not accurate, say it measures 3.1cm (3 1/16") release the Adjustment Screw (A) and slide the Mat Guide Adjuster (B) so it reads what you have measured— 3.1cm (3 1/16").

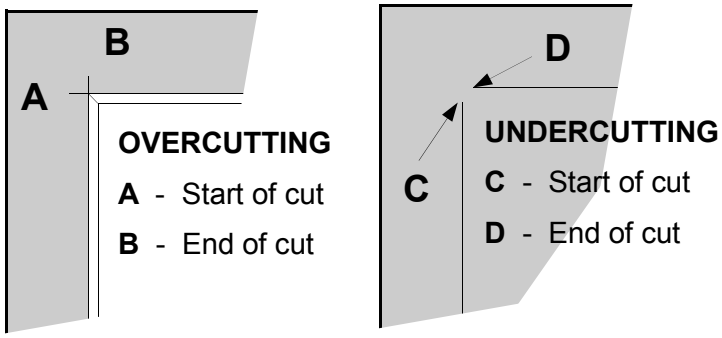
The Mat Guide is now calibrated to cut any size of border width accurately made from that thickness of matboard.




### INSPECTION

Inspect the corners on the **coloured** side of the mat and look for any overcuts or undercuts at the start or end of the cut.

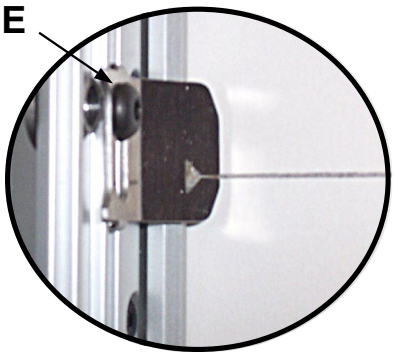
Be careful to identify correctly the Start and End of the cut, remember the matboard has been turned over.




### CALIBRATING THE START POSITION

Measure the amount of overcut or undercut at the Start of Cut, mark out a mat as explained previously and position the cutting head on the pencilled starting line.

Loosen the Start Indicator Adjustment Screw (E) using an Allen key and slide the Indicator away from you by the amount of overcut or towards you by the amount of the undercut. Holding the Cutter Head still tighten the Indicator Screw and check that the distance between the pencilled line and the Indicator mark is the same as the overcut/undercut.




### CALIBRATING THE END POSITION

Measure the amount of overcut or undercut at the End of Cut, when cutting the next matboard allow for the difference visually. That is, if your were overcutting stop before the engraved line on the Blade Support Plate reaches the pencilled line and visa versa.

IMPORTANT

**BLADE DEPTH**

Altering Blade Depth is not the correct way of calibrating for overcuts and undercuts. The blade depth should be set first and the cutter then calibrated accordingly.

**TIP** The End of Cut can be accurately and easily judged by the position of the blade itself in relation to the pencilled line. Try practicing on some scrap matboard first.

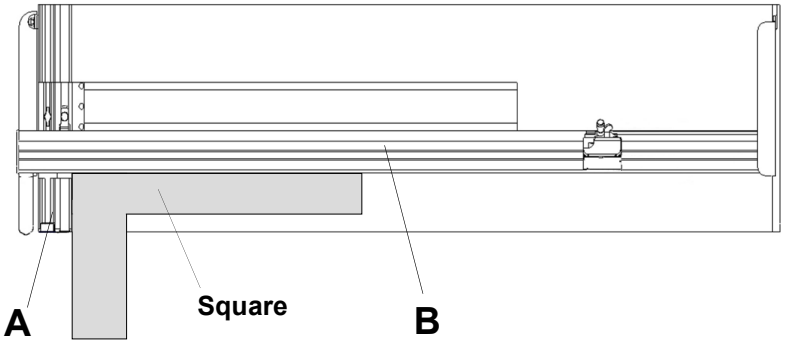
# User Instructions

## Maintenance - Squaring 1

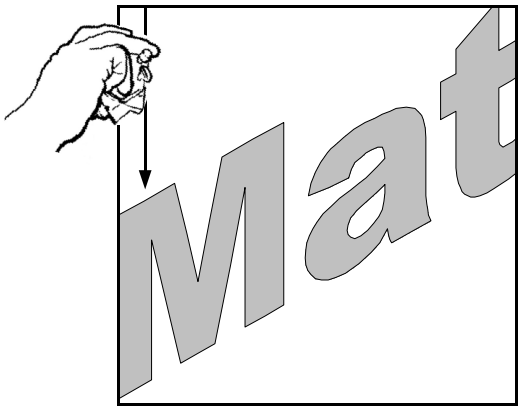
YOU SHOULD NOT NEED TO ADJUST THE SQUARING OF THE MACHINE!
**SQUARING THE CUTTER BAR AND END PLATE** is carried out in our factory before despatch on all new machines. Therefore adjustment should never be necessary.

**SETTING THE END PLATE SQUARE WITH THE CUTTER BAR**

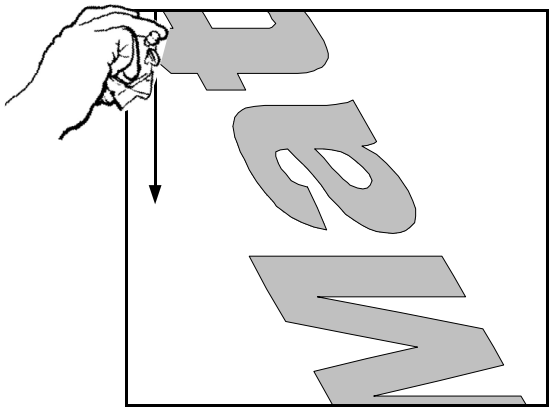
The best method of squaring the End Plate (A) with the Cutter Bar (B) is to use the Optional Vertical Cutting Attachment and cut a test matboard as described below. If you do not have the Vertical Cutter use a carpenters of draughtsman's square between the right hand edge of the Cutter Bar and the End Plate, skip this section and proceed over the page.



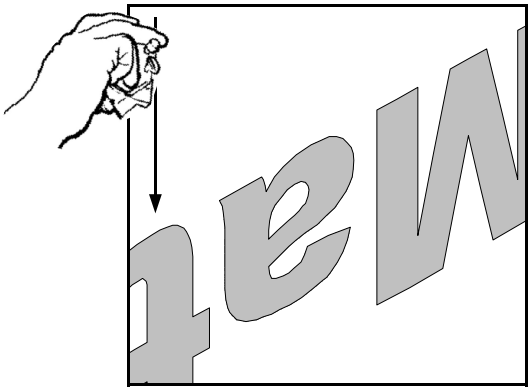

**1** Take a matboard at least 65 x 65cm (25" x 25") in size. Clamp it under the Cutter Bar and trim off approx 1cm (1/2") from the left hand edge using the vertical blade, ensuring the bottom edge is in close contact with the Measuring Arm.



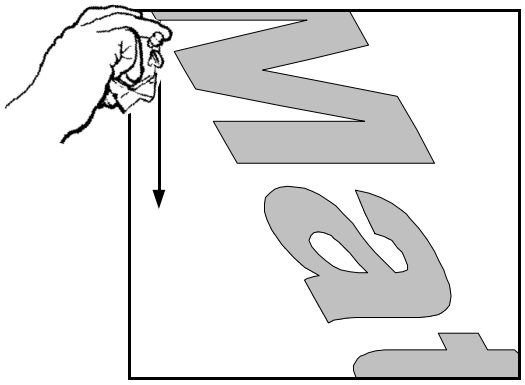
**2** Turn the mat a quarter of a turn counter-clockwise and trim the same amount from the second edge.



**3** Repeat for the third edge.



**4** And again for the fourth edge, always making sure the bottom edge of the mat is in close contact with the Measuring Arm



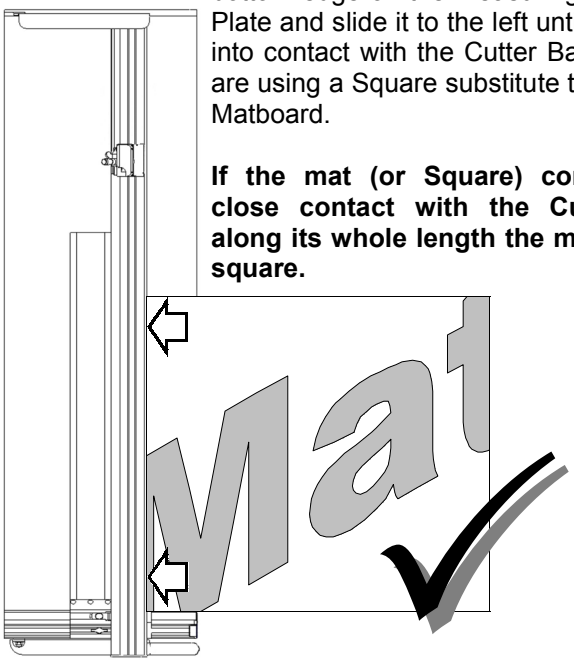
# User Instructions

## Maintenance - Squaring 2

**CONTINUED**

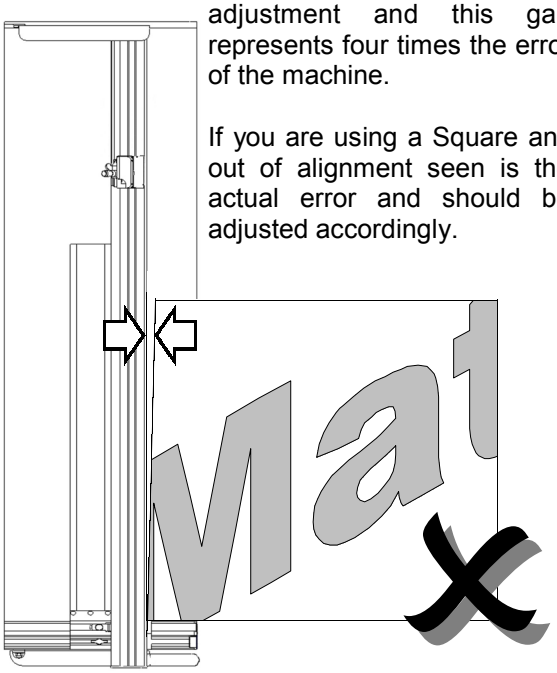
Rotate the mat a quarter of a turn counter-clockwise but this time place the bottom edge on the Measuring Arm/End Plate and slide it to the left until it comes into contact with the Cutter Bar. If you are using a Square substitute this for the Matboard.

**If the mat (or Square) comes into close contact with the Cutter Bar along its whole length the machine is square.**



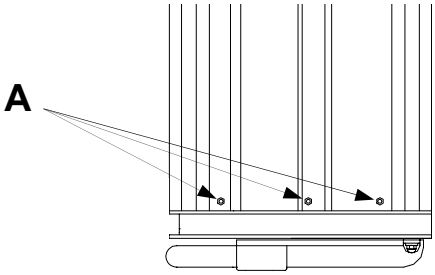
**IF THERE IS A GAP** between the matboard and the Cutter Bar, then the machine requires adjustment and this gap represents four times the error of the machine.

If you are using a Square any out of alignment seen is the actual error and should be adjusted accordingly.



### ADJUSTING THE END PLATE/MEASURING ARM

Loosen the three nuts (A) that hold the End Plate in position (they are on the underside of the base). Adjust the angle of the Measuring Arm and End Plate to close the gap by a quarter (the full gap if using a Square). Tighten the nuts and repeat the test, make further adjustments if necessary.



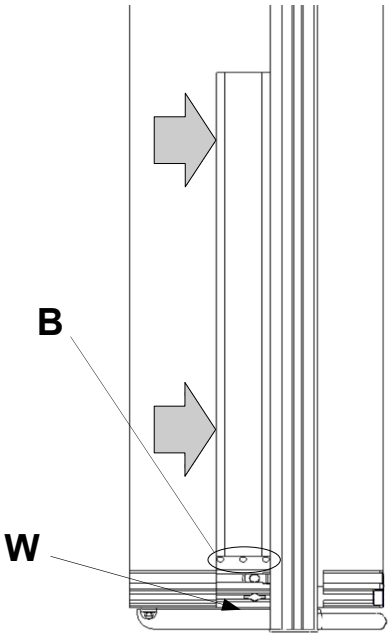

### SQUARING THE MAT GUIDE

Place a strip of matboard under the Cutter Bar so that it does not protrude to the left of the Cutter Bar. Move the Matguide across to touch the Cutter Bar and tighten the Wing Bolt (W).

The Matguide should be parallel with the Cutter Bar and should touch long its whole length.

If not loosen the three Matguide Adjustment Screws (B) and the Wing Bolt, move the Matguide to the right until it touches the Cutter Bar along its whole length.

Tighten the Wing Bolt, then the Adjustment Screws whilst holding the Matguide onto the Cutter Bar.



# User Instructions

## Maintenance - The Slide Bearings, Lubrication & Cleaning

### ADJUSTING THE CUTTER HEAD SLIDE BEARINGS

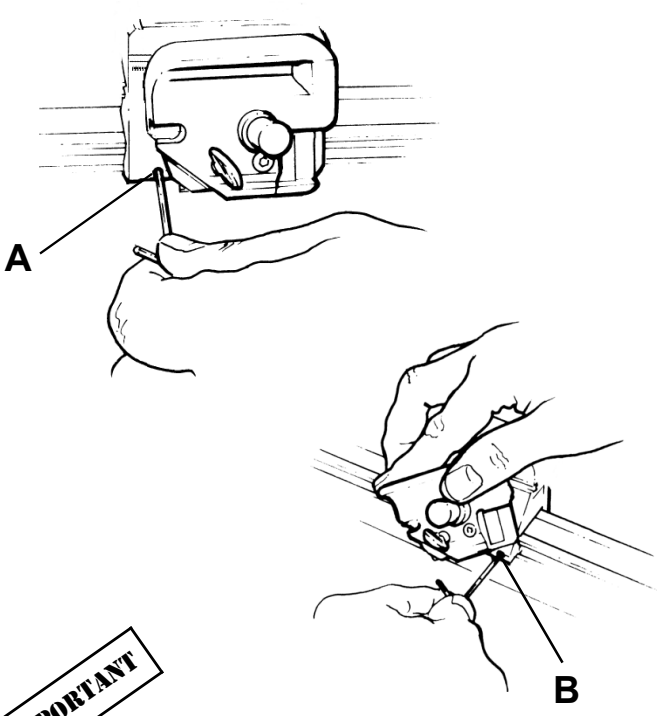
The bearings which control the sliding motion of the Artist cutting head are machined from a remarkable material called Ultra High Molecular Weight Polyfine and they will never wear out. As the bearings settle into position you may wish to adjust them to eliminate side play from the sliding head as follows:-

Remove the slip sheet to allow the cutter bar to lay flat on the machine base.

Place the 2mm hexagon wrench in the front bearing adjustment screw (A) and turn clockwise by small increments (1/16th of a turn) sliding the head each time to check for free running.

When the head slides less easily turn the adjustment screw back counter-clockwise by one small increment or two to restore free running.

Repeat steps 2 & 3 on the back bearing adjustment (B) first rotating the bevel blade holder to gain access to the head of the adjustment screw.




IMPORTANT

It is not necessary to remove the head for cleaning and once the bearings are adjusted to your preference you may never have to do it again.

### CLEANING

Most important is to keep the cutter clean and ideally covered when not in use. Clean with a dry cloth, for stubborn marks use diluted detergent on a cloth. Do not use solvent cleaners or lighter fluid.

### LUBRICATION

Use a Silicone Lubricant sprayed onto a cloth or sponge to lubricate the Cutter Bar, do not use oil. Be careful not to get silicone on the base of the cutter or it may spoil the mat.

IMPORTANT

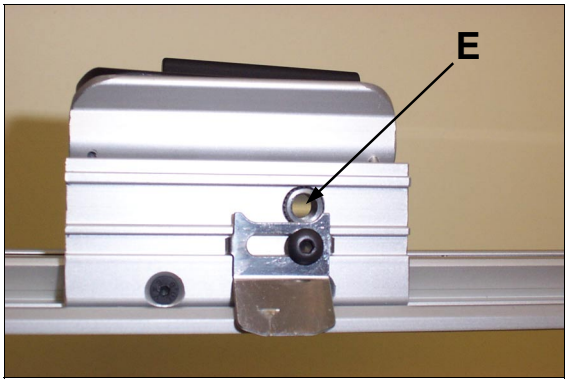
DO NOT USE OIL OR SOLVENTS

# User Instructions

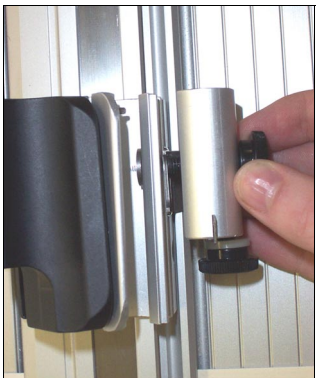
## Optional Accessories - Vertical Cutting Attachment & Squaring Arm

PLEASE ASK YOUR KEENCUT SUPPLIER FOR:-
**KX36 VERTICAL CUTTING ATTACHMENT & 46cm - 18" SQUARING ARM**

### FITTING THE VERTICAL CUTTING ATTACHMENT (OPTIONAL EXTRA)




**1** Locate the fixing hole (E) on the side of the Cutter Head, screw the attachment firmly in place.



**2** Screw the attachment firmly in place.

**3** The blade is inserted in the vertical slot and fastened in position with the Clamping Knob. The depth of the blade should be adjusted to just cut through the matboard, if the blade is set too deep it will be harder to cut the board and the cut could be jagged.

IMPORTANT

**The Vertical Cutting Attachment or the Blade must be removed when bevel cutting or the mat will be damaged.**

For replacement Blades order 'SM02 blades' from your Keencut dealer.

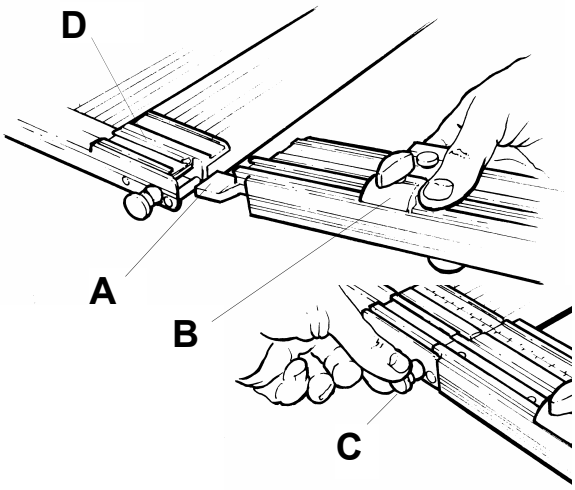
### FITTING THE MEASURING ARM (OPTIONAL EXTRA)

The Measuring Arm is used as a guide when cutting matboard to size (sizing) to ensure the board is cut at 90º.

It features a fitted plug in bracket (A) and Limit Stop (B) together with a separate Locking Screw (C).

Present the Measuring Arm bracket into the slot in the End Plate (D) at an elevated angle (as shown), push into position and lower to the horizontal.

Screw in the Measuring Arm Locking Screw to fasten the Arm in place.



# User Instructions

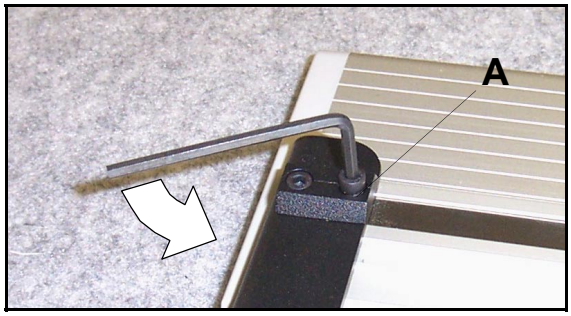
## Optional Accessories - Fitting the Twin Production Stops

### OPTIONAL PRODUCTION STOPS

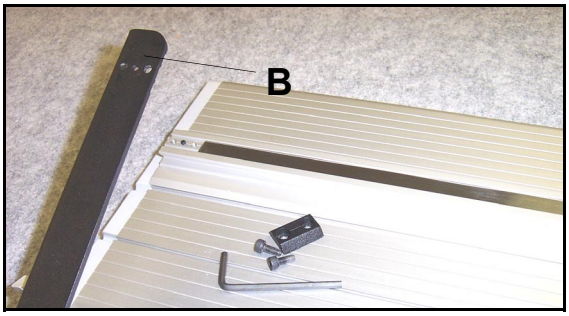
These are available as an option to help speed up volume mat production. By marking out the first mat the stops can be set therefore removing the need to mark out the remainder.

PLEASE ASK YOUR KEENCUT SUPPLIER FOR:- **KX37 TWIN PRODUCTION STOPS**

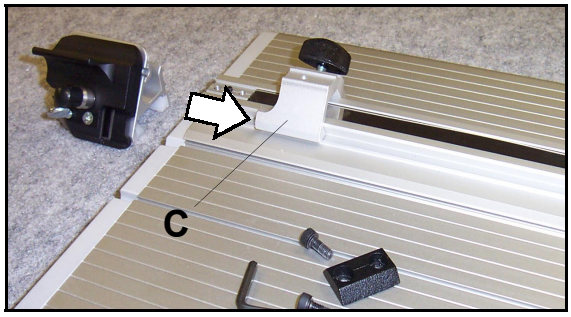
### FITTING THE STOPS



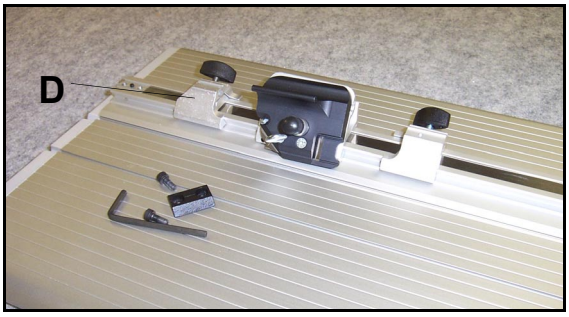

**1** Using the 4mm Allen key remove the two screws and Block (A) at the top end of the Cutter Bar.



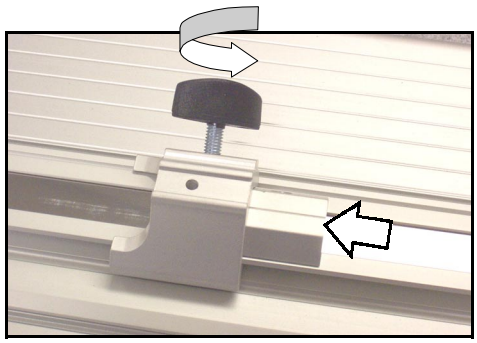

**2** Raise the Lift Arm (B) out of the way.



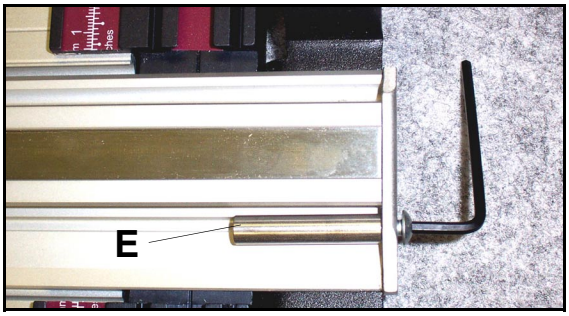

**3** Slide off the Cutter Head. Select the End of Cut Stop (C), slacken the thumb screw and slide it onto the Cutter Bar.




**4** Carefully slide the Cutter Head back followed by the Start of Cut Stop (D).



**5** Ensure the Clamping Blocks in each of the stops are correctly positioned. The end of the thumb screw fits into the recess in the Clamping Block




**6** Reassemble the Lift Arm, Block and screws. Remove the Stop Bar (E) using the 3mm Allen key. This is no longer needed.

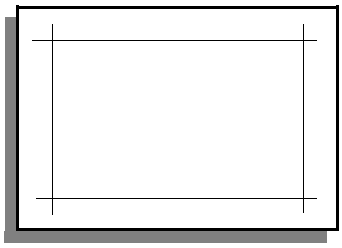
Check the Cutter Head has no side play on the Cutter Bar, if it does please refer to the Maintenance section 'ADJUSTING THE CUTTER HEAD SLIDE BEARINGS'.

# User Instructions

## Optional Accessories - Using the Twin Production Stops

When Bevel Cutting with the Optional Production Stops the first mat is marked out with a pencil in the normal way, which enables the position of the stops to be set for cutting the subsequent mats. First, all the short cuts are made, then the Start of Cut Stop is reset to then cut all the long cuts.

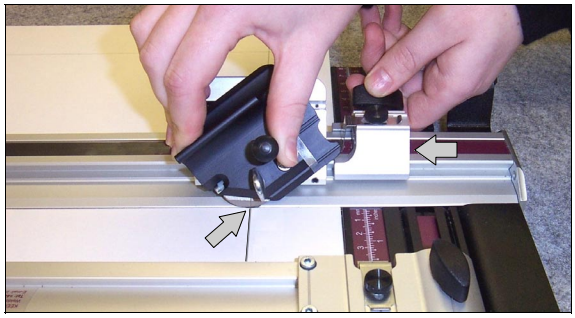
Both accuracy and speed is increased, but it is important that the matboard blanks are cut with square corners.



**1** Mark out the mat in the normal way.

Position the mat in the machine as for normal cutting.

**2** Position the Start Indicator on the start line, bring the Start of Cut Stop into contact with the Cutter Head and tighten the thumb screw to lock it in position.

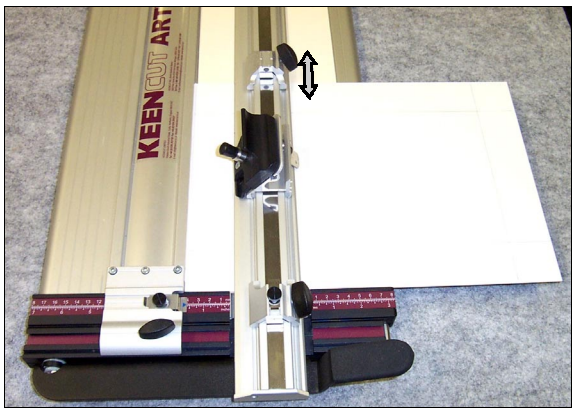


**3** Enter the blade into the mat and cut in the normal way until you reach the end position. Bring the End of Cut Stop into contact with the Cutter Head and tighten the thumb screw to lock it in position.

**4** Turn the mat a half a turn and make the opposite cut using the two production stops.

Make the same two cuts in the remainder of the batch of mats, they do not need to be marked out.

**5** When the last side has been cut return to the original marked out mat and position it to make the next cut. Reset the Start of Cut Stop in the same way as before and cut the remaining sides. The End of Cut Stop position will not need resetting.



# User Instructions

## Optional Accessories - The “Plus Pack”

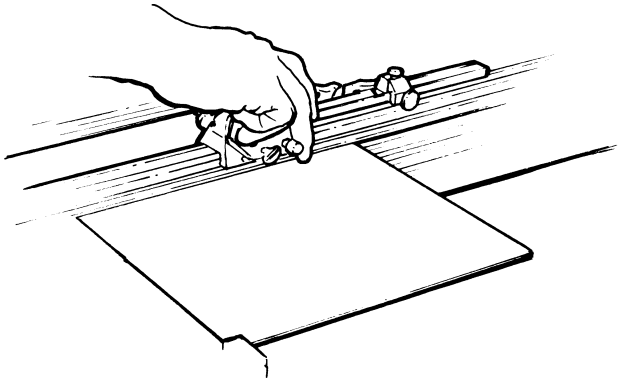
PLEASE ASK YOUR KEENCUT SUPPLIER FOR:-
**KX38 - ARTIST “PLUS PACK”**

The Atrist ‘Plus Pack’ includes everything required to upgrade your Artist mat cutter to an ‘Artist plus’.

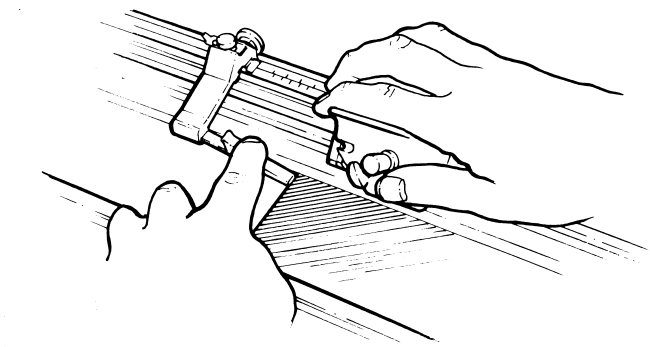
The pack includes:-

- Professional cutter head with Bevel & Vertical Blade Holders and Start of Cut Gauge.
- Finish of cut Stop with measuring scales
- 46cm—18” Squaring Arm

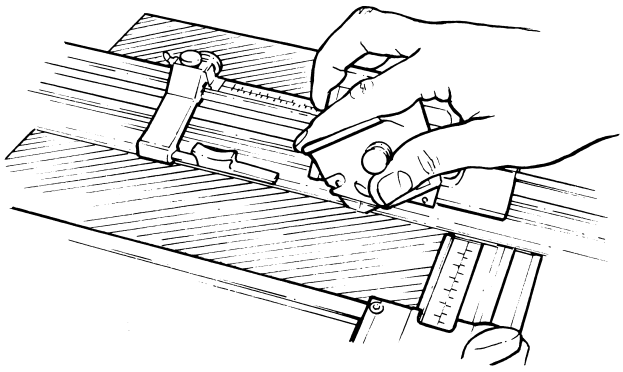
For more information please contact your Keencut distributor.



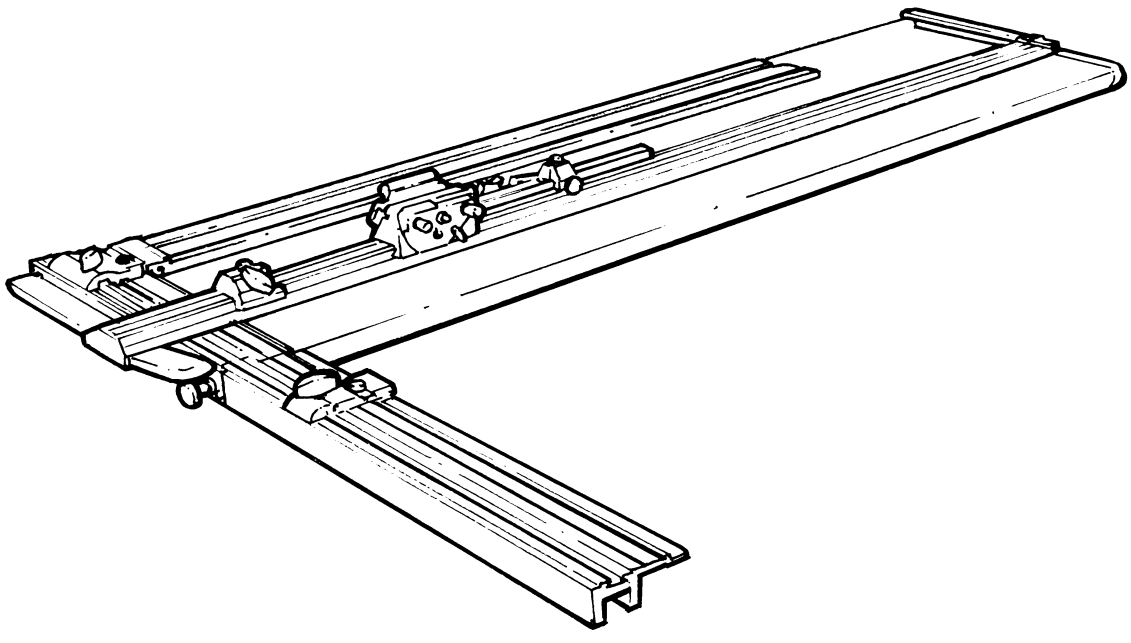
Professional Cutting head with Vertical Blade Holder



The Start of Cut Gauge, no more pencilling lines.



The Finish of Cut Gauge.



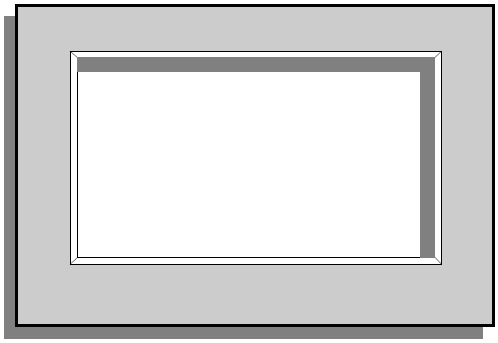
# User Instructions

## Cutting Techniques - Cutting Unequal Margins & Offset Corner Mats

### UNEQUAL MARGINS

Unequal Margin mats are often used to overcome the optical illusion of a picture appearing to be set too low in the frame.

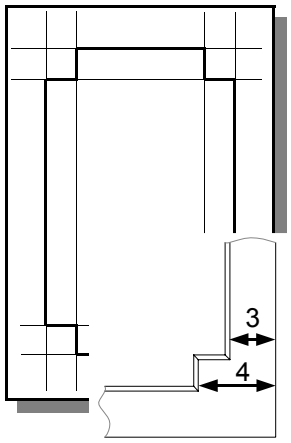
Cutting a mat with Unequal Margins is as simple as cutting a standard mat, increase the setting of the Matguide when marking out the bottom edge of the mat and cut to the pencil lines in the normal way.



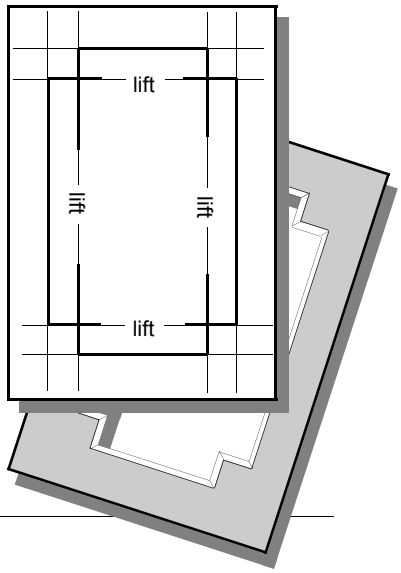
### OFFSET CORNER MAT

**1** To cut an offset corner mat 2 sets of 4 cuts are made.

Only two dimensions are required (see drawing). Set the Matguide to, say, 4 (cms or inches) and mark the mat all way round. Then set it to 3 and again draw all four sides.

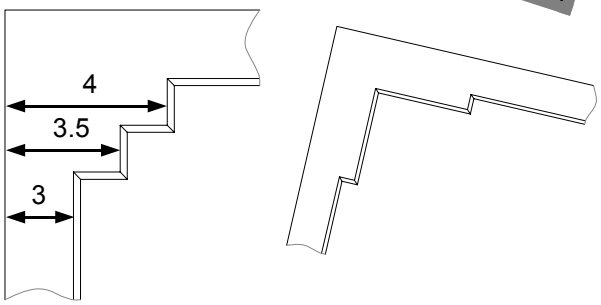


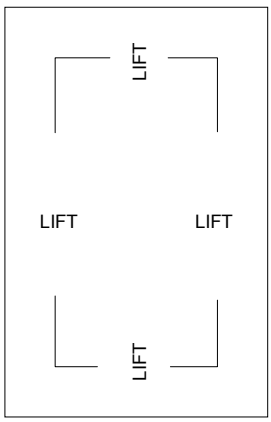

**2** Cut the 3 (cms or inches) borders as shown then move the Matguide to make the remaining cuts but when cutting lift out and reinsert the blade in the mat in the middle of the cut. This keeps the fallout in one piece until the mat is complete.



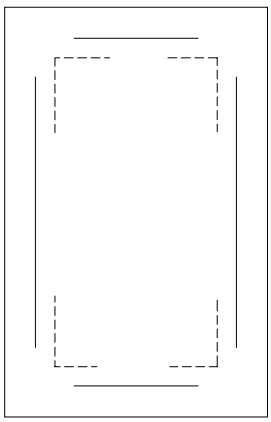

### DOUBLE OFFSET CORNER MAT

Set the Limit Stops to the dimensions in the table below. Follow the sequence below, on the FIRST set of cuts and the LAST set of cuts - remove and re-insert the blade at approximately the middle on all four sides. This helps to keep as much of the fallout intact until the last cut.

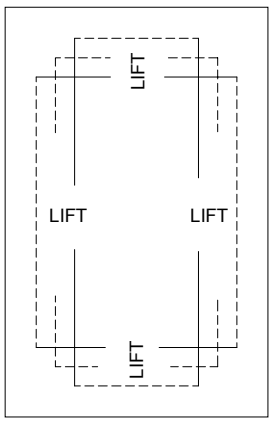


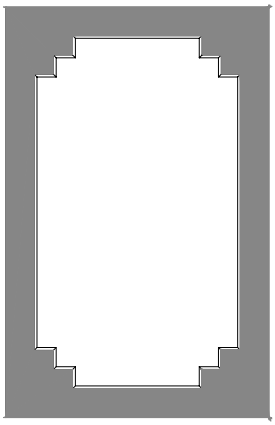

1st set of cuts



2nd set of cuts



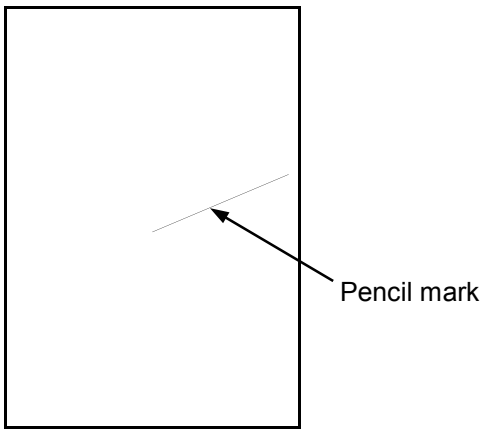

3rd set of cuts



The finished Mat

# User Instructions

## Cutting Techniques - Cutting a V-groove




**CUTTING A V-GROOVE**

Lightly mark the back of the mat board with a pencil and then cut a mat.

Remove the mat and fallout and retain both.

Remove slip mat.

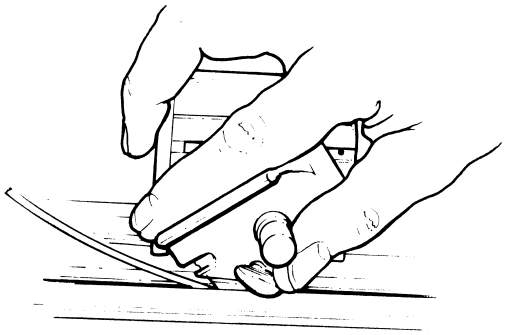
Set the Mat Guide forward so it is approximately 2mm (1/16") away from the Cutter Bar. This is only an initial setting and adjustment may be necessary after a trial cut, changing the width of the V-Groove is explained below.

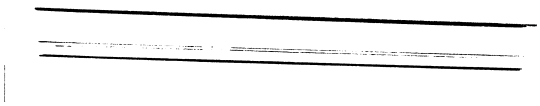
Place the fallout (coloured face up) under the cutter bar against the Mat Guide.

Fully depress the blade and draw it through the card.

Take care to remove the trimming.

Repeat on the remaining three edges of the fallout.



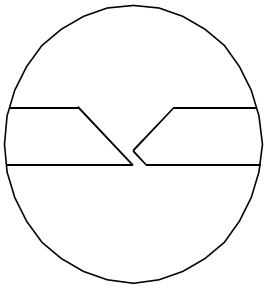


Place the fallout face down and position the mat on it using the light pencil mark as a guide to place the pieces back correctly.

Tape the mount and the fallout together along the cut lines.

**NOTE:** Use the thin tape or the thickness could upset the blade depth.

Take the assembled mat board and cut a mat inside the V-Groove in the normal way.



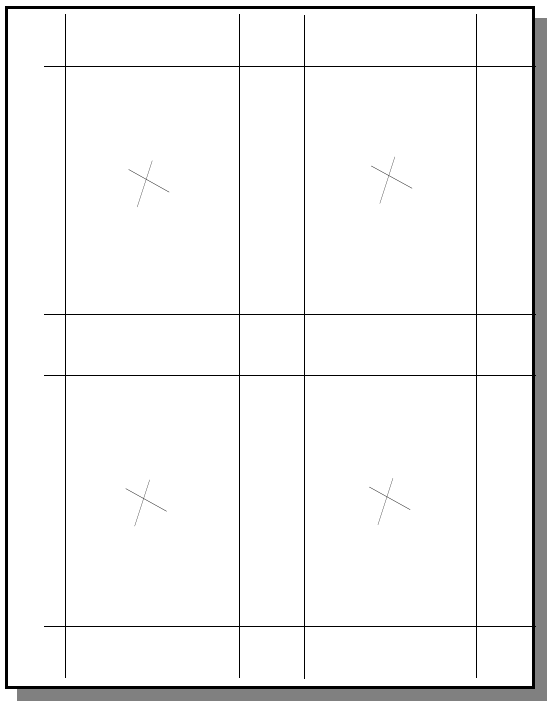
**CHANGING THE V-GROOVE WIDTH**

If the trial cut results in the V-Groove being too wide or narrow the gap set between the Margin Guide and Cutter Bar can be adjusted. Once a desired gap has been found a spacer can be made from board, plastic, wood, etc. so the setting can be returned to.

# User Instructions

## Cutting Techniques - Cutting Multiple Openings & Title Boxes

**CUTTING MULTIPLE OPENINGS AND TITLE BOXES**

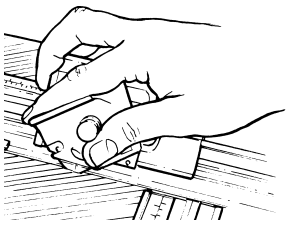


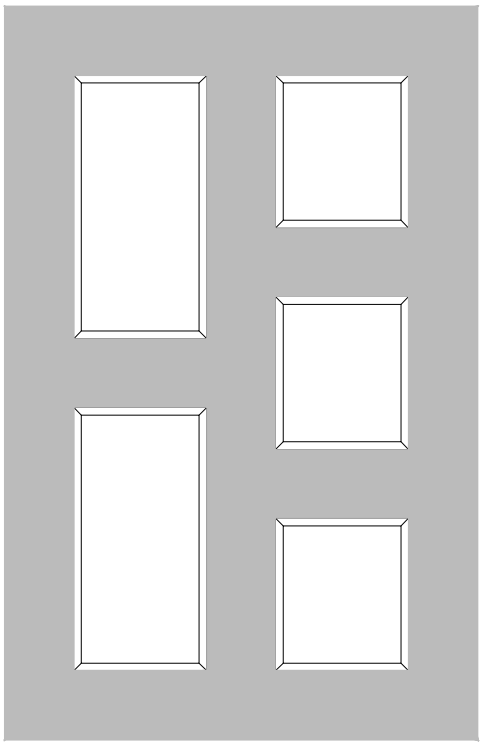
Pencil mark the back of the mat board with the required layout and place an 'x' in each aperture to be cut. If the 'x' of the aperture to be cut is under or to the right of the Cutter Bar then the bevel will not be accidentally cut in the wrong direction.

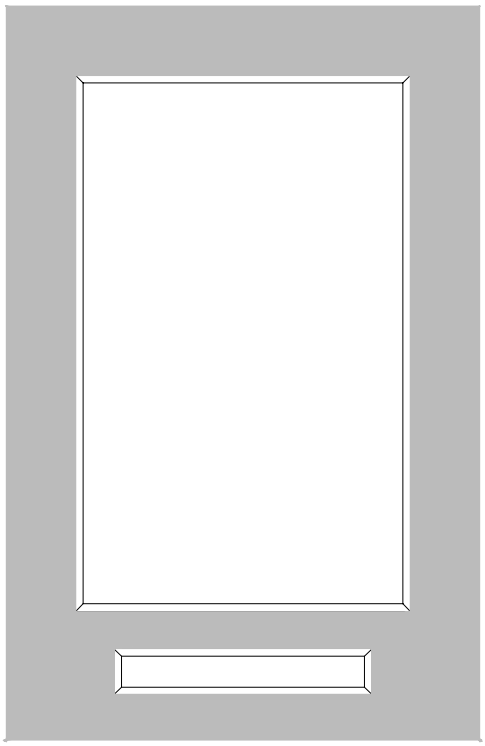
Place the mat board under the Cutter Bar so the bevel blade cuts along the pencil line.

Using the Start (A) and Stop (B) Indicators in the normal way make the cuts accordingly.

Repeat until all the apertures are complete.







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