



## HOW-TO BOOKLET #3039 PICTURE FRAMING



### TOOL & MATERIAL CHECKLIST

- |                                    |   |                                       |
|------------------------------------|---|---------------------------------------|
| <input type="checkbox"/> Scissors  | <input type="checkbox"/> Ruler/Tape Measure | <input type="checkbox"/> T-square     |
| <input type="checkbox"/> Matting   | <input type="checkbox"/> Glue               | <input type="checkbox"/> Hammer       |
| <input type="checkbox"/> Saw       | <input type="checkbox"/> Nails              | <input type="checkbox"/> Sandpaper    |
| <input type="checkbox"/> Finishing | <input type="checkbox"/> Glass              | <input type="checkbox"/> Backing      |
| <input type="checkbox"/> Miter Box | <input type="checkbox"/> Drill Bits         | <input type="checkbox"/> Glass Cutter |
| <input type="checkbox"/> Pliers    | <input type="checkbox"/> Hanging Fixture    |                                       |

*Read This Entire How-To Booklet for Specific Tools and Materials Not Noted in The Basics Listed Above.*

While ready-made picture frames are available, creating your own is a relatively simple DIY project. This booklet contains instructions for selecting, matting, mounting, assembling, and hanging your picture as well as for cutting glass if used.

### GETTING STARTED

After you've chosen the picture you want to frame, consider whether to crop it to achieve a good proportion in relation to the wall it's being hung on and in relation to any other pictures and furniture. Generally, a picture should be no wider than the piece of furniture below it or narrower than half its length.

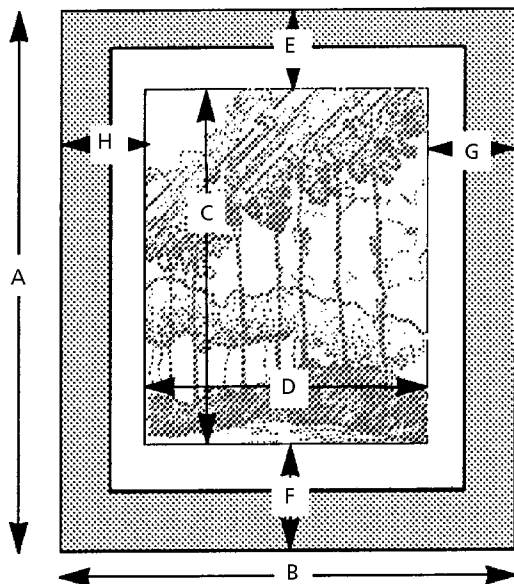
To crop, place four strips of white paper on top of the picture as though framing to determine its best effect. When cropping landscapes or scenery prints, have the horizon about one-third of the way from either the top or bottom of the print; if a print involves one or two people, the composition is best if they are looking toward the center of the picture.

### WHAT STYLE FRAME?

Selecting a frame is a personal decision, but a few suggestions may be helpful. Black-and-white prints, flat or abstract subject matter will often look best with narrow frames.

Pencil drawings, pastels and watercolors are better if matted and placed under glass. Oils, as a rule, are framed without glass and mats.

**Fig. 1**



To mat a picture, you need to obtain outside dimensions. Shown is a double-matted picture.

## MATTING THE PICTURE

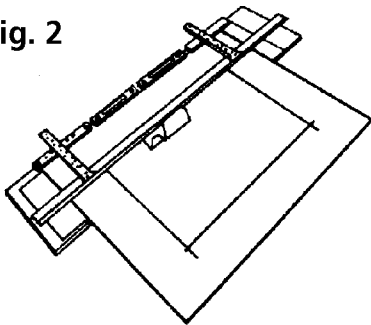
Matting is simply surrounding a picture with a creative border. The mat color should complement the artwork.

**Position the Print.** All four mat sides or margins are usually equal. However, for a more traditional approach, the bottom margin may be wider than the other three. For best results, the mat margins should be a different width than the frame molding.

**Outside Dimensions.** The matting, backing, and (if used) glass all have the same outside dimensions. Use the following formula and **Fig. 1**.

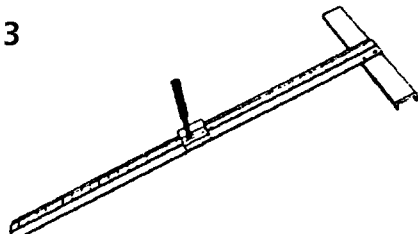
- 1 Outside height (A) equals picture height (C) plus the height of the top and bottom mat margins (E and F) minus 1/4 inch for overlap.
- 2 Outside width (B) equals picture width (D) plus the width of the two side matting margins (G and H) minus 1/4 inch for overlap.

Fig. 2



A mat cutter minimizes measuring.

Fig. 3



A T-square/beveler ensures clean, beveled cuts.

**Cutting the Mat.** Directions are included with mat cutters (**Fig. 2**), but here are some general instructions to follow:

- 1 Position mat board face down over a large piece of cardboard.
- 2 Make sure that all corners of the mat board are perfectly square.
- 3 Carefully measure the outer dimensions of the mat board and the window opening.
- 4 Draw lines to indicate outside cuts. Recheck all measurements before cutting.
- 5 To determine the depth of the cut, place the mat board against the underside of the cutter and drop the blade until it makes contact with the cardboard underneath the mat. Set the blade accordingly when cutting mat to glass size.
- 6 Place the cutter on the line with the blade in the straight-up position and slide the blade gently toward you. Repeat in the same groove three or four times, going deeper each time, for the cleanest cut.
- 7 On the back of the mat, mark the window opening by measuring the margin width in from the sides of the mat and draw lines to indicate each side of the window opening.
- 8 To cut the window opening, place the blade in the slanted position and align the blade point with your line. To ensure that the bevel is slanted in the right direction, always have the metal rule of the T-square (**Fig. 3**) lying outside the window opening.
- 9 Start the cut about 1/8 inch beyond the corner marking and slide parallel to your body until you have cut about 1/8 inch beyond the other corner marking.
- 10 Turn the mat. Again, be sure that the metal rule is lying outside the window opening and repeat directions in **Step 9** until the window opening is cut.

**Mat Variations.** Double-matting is achieved by mounting the print on two contrasting mat boards with the undermat or liner showing around the picture. Since this process creates a double thickness, use regular glass when framing. Double stick tape between the mats will hold them aligned.

When matting artwork or mounting pictures, do not use masking tape as this can eventually cause discoloration. Surgical tape should be used.

Inlaid mats of contrasting colors and/or widths are cut to fit exactly inside the bevel cut of the other. Decide upon the outside measurement of the mat and the width of the border needed. After cutting the mats, carefully fit them together. The final and smallest cut should be the size of your picture.

Transparent tape applied over the seams on the back side of the board will hold the pieces together.

By building up several inlay rings, the depth of double-matting can be simulated. The result is a double-mat effect with only a single mat thickness, which is useful when framing under non-glare glass.

## CONSTRUCTING THE FRAME

You can use either pre-finished or unfinished molding for the frame. Either way, the finish, style, size and shape of the picture molding should be suited to the picture.

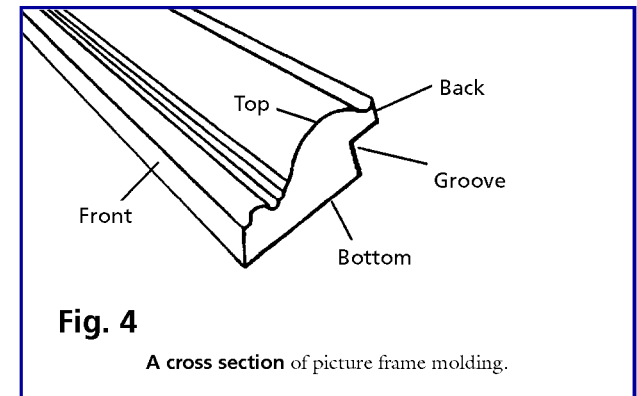


Fig. 4

A cross section of picture frame molding.

Picture frames require a miter joint to conceal the end grains of the molding. Miter joints are cut at a 45° angle. The two pieces then abut each other.

**Note:** To prevent costly errors, make a cardboard template (pattern) to lay out the frame stock. Follow the steps as outlined.

A frame can be made by using a single molding or by combining two or more complementary moldings. This is done by cutting and assembling the inner frame first, then framing this smaller frame with the other molding.

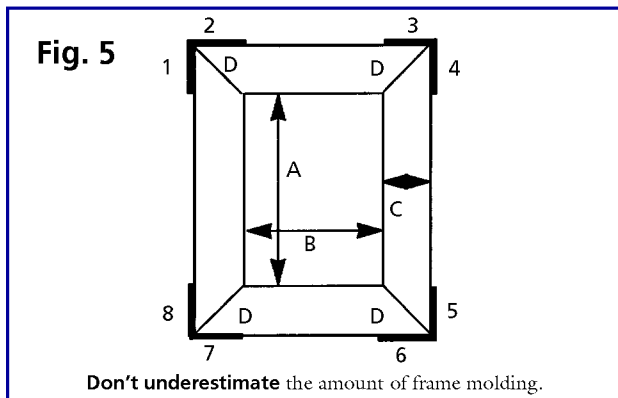
**Estimating Materials.** The groove of the molding (Fig. 4) is usually about 1/8 to 3/8 inch deep. The measurement of the outer dimensions are transferred to the inside of this groove prior to the actual cutting of the molding.

To estimate the amount of frame molding to buy, add together the outer height and width of the matting and picture (A and B in fig. 5) and multiply by 2. To this, add eight times the width of the molding (C). Note the mitered corners (D).

For example: a picture is 8" wide (B) x 10" high (A) and the molding width is 4" (C).

$$\begin{array}{r}
 \text{Calculate: } [A(10) + B(8)] \times 2 = 36 \text{ inch} \\
 \quad \quad \quad + C(4) \times 8 = +32 \text{ inch} \\
 \hline
 \text{Total:} \quad \quad \quad 68 \text{ inch of molding}
 \end{array}$$

**Cutting Molding.** There are two ways to cut molding—using a miter box or using a miter clamp.



When using a miter box (Fig. 6), set it at 45°. Cut so that the grooved side is the shorter side. Saw slowly to prevent splintering or splitting. Remove the molding from the miter box.

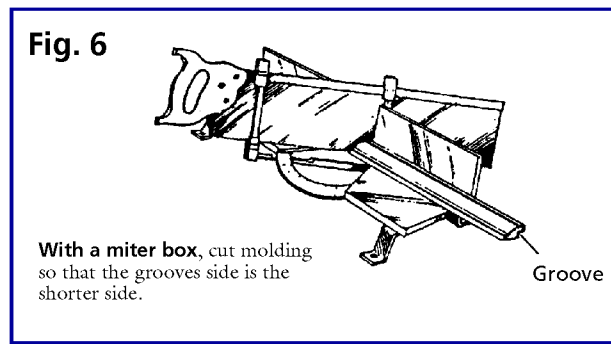
When using a miter clamp (Fig. 7), the groove of the molding must be placed toward the center of the clamp unit. Make a 45° angle. Cut and remove the molding from the box.

**Cutting Top and Bottom:**

- 1 Cut the first 45° corner as described above. To get the outside measurement of the frame, use the outside width measurement (B) from Fig. 1, which is the bottom dimension of the matting and picture you are framing. Add 1/8 inch for the saw cut plus two times the distance from the groove to the back of the molding (see Fig. 4). Start the measurement at the back edge of the first cut.
- 2 Set the molding in the miter box or with the miter clamp so that the saw will pass through the mark on the back. Saw at an angle opposite to the first cut. Remove the molding.
- 3 Trim the remaining molding at a 45° angle so the grooved side is again the shorter side.
- 4 Measure the top molding piece from the bottom piece just cut. Mark and cut.

**Cutting Sides:**

Repeat steps 1-4 given above, using the outside height measurement (A in Fig. 1), which is the side dimension of the matting and picture you are framing.



**Fitting and Joining:**

Place the cut sections of the frame loosely over the picture to make certain that the frame fits the picture and all mitered corners fit together.

**Note:** If you are planning to stain the frame, do so now before assembling the corners as any glue left on the surface will not “take” the stain.

Take one side piece and one bottom piece of your frame and apply a small amount of wood glue to both surfaces to be joined. Clamp the side frame lightly into position, then take the bottom frame piece and clamp so the glued ends abut tightly (Fig. 8).

When the corner is aligned, tighten the clamp to hold the pieces together as you nail the corner. Wipe off any excess glue.

Because miter joints are often weak, brads or metal fasteners can be used to strengthen the joint. Pre-drill the holes and drive one or two brads through the corner from each side allowing the heads to protrude slightly. Using a small nail set, drive the heads just below the surface of the frame and fill with wood putty. Follow same procedure on remaining corners. Leave the frame clamped until the glue has dried completely.

**PROTECTION WITH GLASS**

Non-glare glass is ideal for covering framed prints; oil paintings are not covered. With non-glare glass, make sure picture is placed flat against the glass so it remains clear and sharp. Avoid using non-glare glass for double-matted pictures.

**Cutting Glass.** Procedures are the same for glare and non-glare glass. Pad the work surface with some old carpeting or layers of newspapers. Have a trash can nearby. Wipe the glass clean to remove any soil which might interfere with the cut. If you've never cut glass, practice beforehand on a piece of scrap.

Glass size is 1/16 inch smaller than finished frame size to allow for proper fit.

Outline the glass cut by placing the frame face up on the glass. Using a felt tip pen, mark a line following the lower inside edge along the groove. A straightedge or a good T-square placed over the line and held firmly in place can be used to guide the cut. A better fit is achieved by scoring (not cutting) the glass just slightly inside the line.

Dip the glass cutter in lightweight household oil to lubricate the wheel. Hold the glass cutter upright between the first two fingers of your hand with the thumb pressed against the underside (**Fig. 9**).

Start the scoring stroke 1/8 inch in from the edge of the glass; draw the cutter toward you across the whole surface and off the edge of the glass. The stroke must be in one continuous motion using firm, even pressure. Do not repeat the scoring cut. If an error occurs, make a new cut.

When the scored cut has been completed, place the glass so that the scored line extends beyond the edge of the work table. Tap the underside of the glass with the heavy ball end of the cutter. Be sure to follow the scored line exactly. Follow the same procedure for the three remaining sides. Sand the sharp edges with a coarse sanding block.

## MOUNTING THE PICTURE

Pictures can be attached to a sheet of cardboard backing or heavy mounting board. A valuable print must never be permanently attached to the backing.

Measure and cut the backing to fit the frame using a mat cutter or utility knife and square. Only the outer cut is required; do not cut a window opening. Check the position of the print before mounting.

Artwork may be mounted loosely by applying cloth surgical tape across the top of the print. A tight mount can be achieved by spraying the back of the print with an adhesive and then pressing it into place on the mounting board (not recommended for a valuable print).

## ASSEMBLING THE PICTURE

Follow these steps as they apply to your picture. Brush the mat and artwork with a soft, lint-free cloth and wipe the glass clean with glass cleaner.

Place the matted or non-matted artwork face up over the cardboard backing board and place the glass over the picture. Position the frame around the picture and carefully turn the whole unit over. At this point, insert several brads or glazier points behind the backing to hold the unit together temporarily.

Recheck the face of the picture before installing the remaining brads. Slip-joint pliers can be used to install the remaining brads, which are spaced 6 inches apart (**Fig. 10**). No putty is required.

To make the finished picture air tight and dust free, cover the entire back of the picture and frame with brown wrapping paper by taking these steps:

- 1 Glue the perimeter of the paper and apply to the picture frame.
- 2 Smooth as much as possible. Allow to dry.
- 3 Moisten the paper until it is discolored. When the paper dries, it will tighten.

## HANGING THE PICTURE

Various types of fixtures for hanging pictures are available. One type, the angled hanger and nail can hold up 35 pounds. Establish the exact wall location where the picture will be hung, and mark and "X" with a pencil. Gently hammer a nail into the "X" at a 45° angle. The nail should protrude half an inch.

Hang heavy pictures only where the hanger can be nailed into a wall stud.

For greatest enjoyment, pictures should be hung at eye level.

