

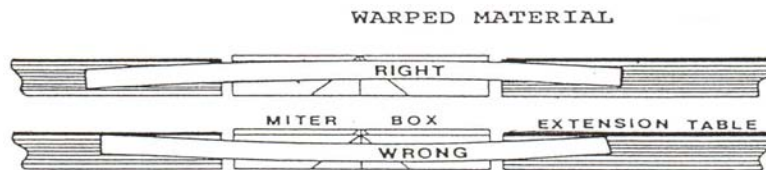
phaedra framing

QUADRANT Professional Mitering System
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1-800-567-6144

Section One: Safety Rules

Read and understand the following safety rules before beginning assembly. Always follow the safety rules provided with your miter saw.

- * Keep hands away from the blade during all cutting operations. Hold materials securely, even if clamped. Do not put hands closer than six inches from the blade during cutting.
- * Keep others away from the work area. Do not allow anyone to move or lean on any part of the saw or extension fences while it is in use.
- * Make sure the extension fences are properly adjusted. The working surfaces of the extension fence should form a continuum with the working surfaces of the saw.
- * Use the free standing model only on flat, solid surfaces. The bench top model should be used on a flat, wobble free bench.
- * If using the free standing model, make sure the legs are extended and locked into position with the T-handle.
- * Make sure the connector plate handwheels are securely tightened before using the saw.
- * Do not lean anything on the fence extensions.
- * Check the alignment of the extensions if they are bumped hard during use. If an extension has been knocked out of alignment, adjust it immediately.
- * Before any saw cut is made, be sure that the material being cut is resting firmly against the saw and extension fences. Warped boards or any material that cannot be firmly positioned against the saw surfaces may cause the saw blade to bind and eject the material. See *Figure 1*. Damage or serious injury may result.



(Figure 1)

- * Extra support may be needed on exceedingly long or heavy materials.
- * Avoid banging the extension coupler plate into hard surfaces, as this may cause it to become misaligned.
- * Do not set up the saw or extensions in water or on wet surfaces.
- * When waxing the blade for cutting aluminum, do not apply wax while the saw is running.
- * Allow the saw blade to come to a complete stop after completing a cut. Lift the saw head only after the blade has come to a complete stop to minimize the risk of material being thrown back by the saw blade. This will also give cleaner cuts, as it eliminates the chance of the spinning saw blade contacting the molding a second time.
- * Cutting small pieces off the end of materials may cause the saw to throw them out at the operator.
- * If you are unsure of the safety of performing a particular operation with the saw, don't do it.

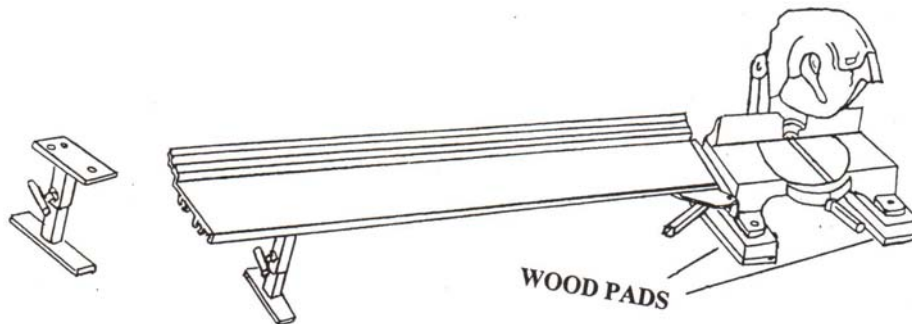
Section Two: Assembly Instructions

The Phaedra Quadrant mitering system is available in two styles: bench top and free standing. The bench top model has short legs that adjust from 5 to 7 inches; the free standing model has legs which adjust from 31 to 42 inches. A separate miter box stand is available with the free standing model.

Standard lengths of the extension fences are 50 inches. Specially ordered long fences are 84 inches long. The total fence length is calculated from the saw blade to the end of the fence, with the saw adding an extra 10 to 12 inches to each fence length. Therefore, the 50 inch fence will provide approximately 60 to 62 inches of working distance from the saw blade to the end of the fence, while the 84 inch model will provide about 94 to 96 inches of working distance.

When mounting legs on the 50 inch fences, position them about 5 inches from the end of the fence; on 84 inch or longer fences, mount the leg about 18 inches from the end of the fence.

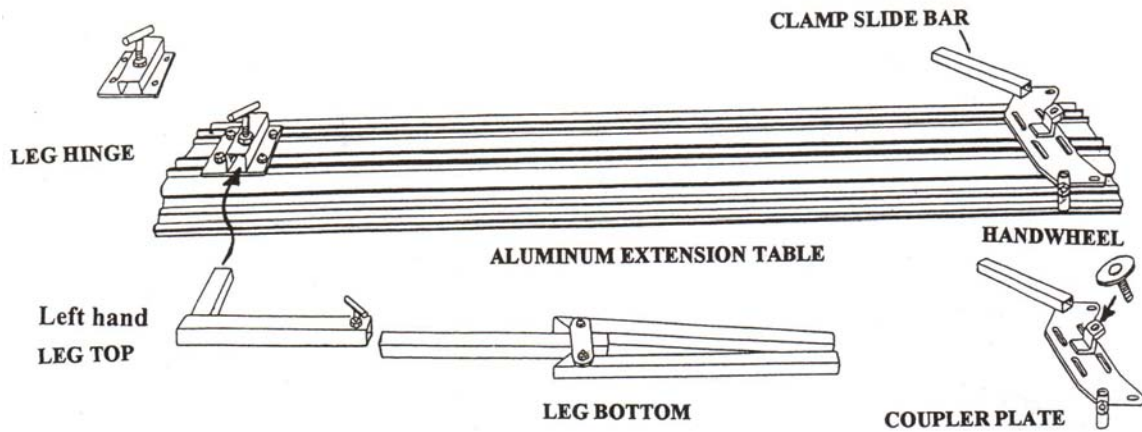
For bench top systems with short legs, attach the legs to the fences with three 1/4" x 3/4" bolts and nuts (no washers are necessary). The heads of the bolts will slide into the channels on the underside of the aluminum extension table. When using the bench top system with a miter saw, the work surface of the miter must be 5 to 7 inches above the table top. If your saw is not that tall, secure wood pads under the feet of the saw as shown in *Figure 2*. For example, a 2x4 board (1 1/2" thick) and a 1x4 board (3/4" thick) will make a riser 2 1/2" thick, which would raise a 3 inch high saw to 5 1/2 inches.



(Figure 2)

Figure 3 shows how to mount the coupler plate and the leg on the underside of the aluminum fence for the left side of the saw. The fence for the right side of the saw will be a mirror image of this one. The leg hinge for the free standing model is bolted to the fence with four 1/4" x 3/4" bolts and four regular nuts. It is not necessary to use washers under the nuts. When the free standing fence is removed from the saw, the leg can be folded against the fence for easier storage. To fold the leg, insert the square tang on the left top into the leg hinge so the leg rests parallel to the aluminum fence and then tighten the leg hinge T-handle to secure the leg. The nuts on the leg assembly should be facing outwards when stored so they do not mar the underside of the fence. To move the leg to

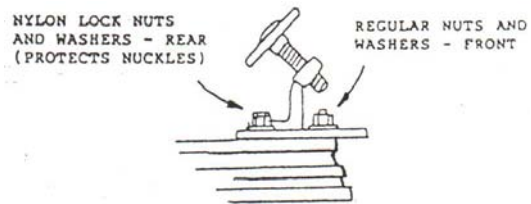
the upright position, rotate it 90 degrees and secure it in place with the T-handle on the leg hinge. Fold out the bottom of the leg and adjust it for height if necessary.



(Figure 3)

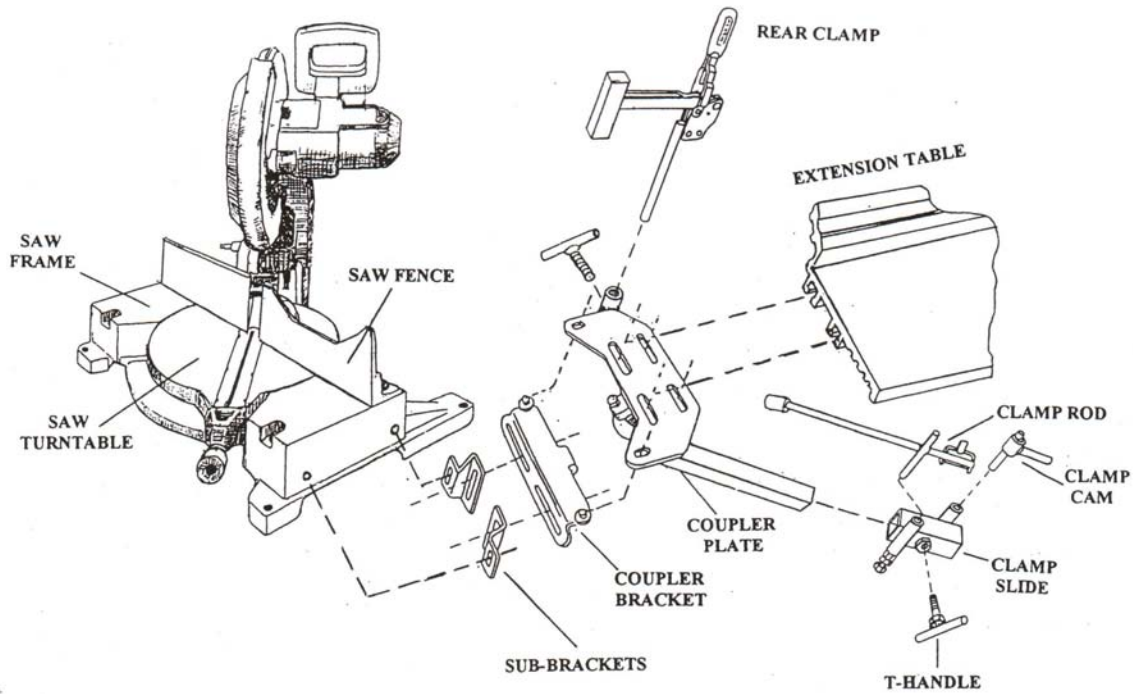
Figure 3 also shows the position of the coupler plate on the underside of the aluminum fence for the left side of the saw. There are both right and left hand coupler plates. Note that the 45 degree clamp slide bar will protrude from the front of the extension tables and will angle away from the saw. Attach the coupler plates with four 1/4" x 3/4" bolts. The heads of the bolts will slide into the channels on the underside of the aluminum extension table. Place the coupler plate over the four bolts and push a washer on each bolt.

On the two bolts closest to the saw, use regular nuts (Figure 4). On the two bolts at the rear of the plate (closest to the leg) use lock nuts (they have nylon inserts on one end). The lock nuts are used at the rear of the plate to protect your fingers when you tighten the handwheel that couples the coupler plate to the coupler bracket. Without the taller nuts, part of the bolt end will protrude and may scratch your knuckles.



(Figure 4)

Section Three: Mounting the Coupler Bracket to the Saw

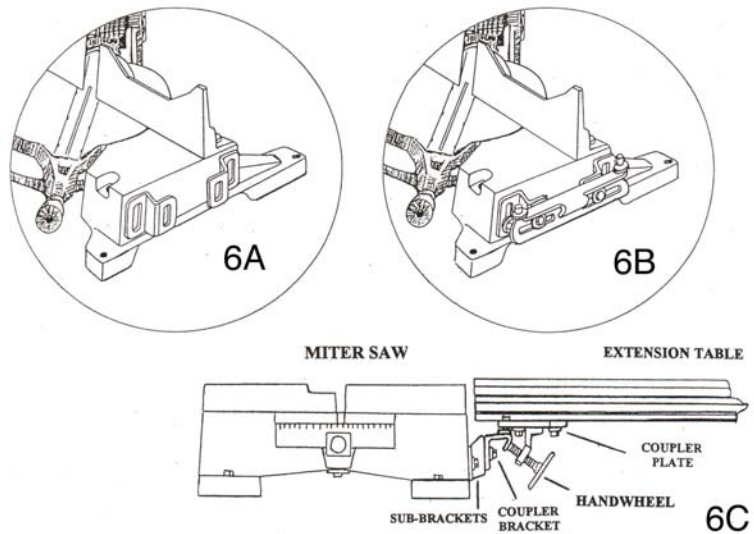


(Figure 5)

Figure 5 shows an exploded view of how the coupler mechanism attaches to the aluminum extension saw to the miter saw.

The sub-brackets are permanently bolted to the miter saw (Figure 6A) and the brackets are bolted to the sub-brackets (Figure 6B). The coupler plate is permanently bolted to the extension table.

Once assembled, the extension table may be coupled to the saw by mating the coupler plate holes onto the coupler bracket pins and tightening the handwheel on the coupler plate. Figure 6C shows the extension table and the saw coupled together.



(Figures 6A, 6B AND 6C)

The gap between the saw and the extension table should be about 1/8 of an inch.

There may be existing holes on the base of the miter saw that can be used to attach the sub-brackets. If your saw does not have holes, you will have to drill them. Guidelines dedicated to individual saw types will be provided in the Appendix, but for right now, please read these general instructions for assembly.

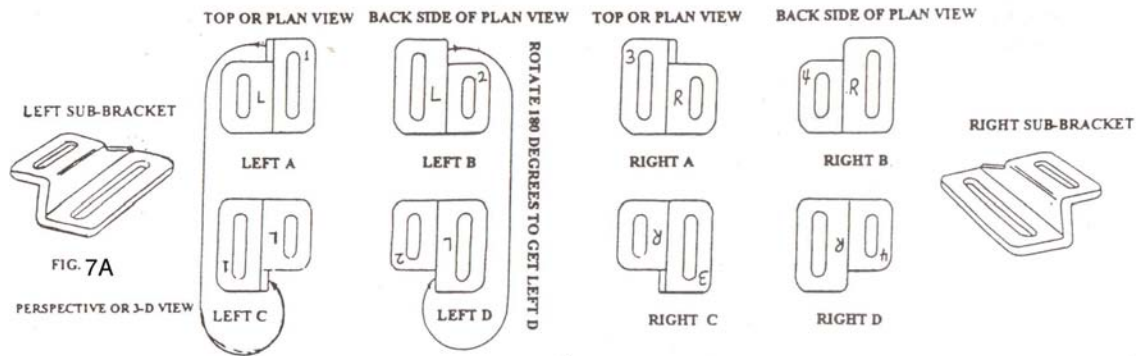
If your saw base has slanted sides, the coupler mechanism will still function normally once the squaring adjustments have been made.

On the sides of many saws there are small ridges, often used to create a comfortable edge for your hand when you pick up the saw. In some cases these will interfere with the sub-brackets, causing them to not lie flat against the saw. Usually turning the bracket one way or the other, or even mounting the sub-bracket at an angle rather than straight up and down, can avoid this problem. The sub-bracket will work fine if placed at an angle and will still allow left/right alignment. If the ridges still interfere with the sub-bracket no matter which position you try, you can place a washer or shim behind the sub-bracket. Filing or sanding the ridge is also another possibility. The bracket will substitute for the handhold on the saw, so removing a small part of the ridge will have no effect on the portability of your saw.

Attaching the Sub-Brackets

The coupler plate should already be attached to the fence with the bolts centered in the coupler plate slots as described in Section Two of the assembly instructions. The coupler plate has slotted holes, which allows the plate to pivot and to be adjusted from side to side. By centering the bolts in the slots, you will have left/right adjustment available when you bring the extension table parallel with the saw fence. Couple the plate and bracket assembly by putting the pins of the bracket into the appropriate holes in the plate and tightening the hand wheel. It is often useful to visualize how the completed bracket will mount to the side of the saw before assembly, so for now loosely bolt a left and right sub-bracket to the coupler bracket and hold it up to your saw. See *Figure 7* to distinguish the left and right sub-bracket.)

Numbering the Sub-Brackets



(Figure 7)

If your saw does not come with pre-drilled holes and/or you need to follow the instructions found in the Appendix for your saw model, it will be helpful if you number the sub-brackets prior to installation. There are four positions for each left sub-brackets, shown as LEFT A, B, C, D and also four for each right sub-bracket, shown as RIGHT A, B, C, and D. If you number the side of each sub-bracket according to *Figure 7* it will be easy to describe how each sub-bracket is oriented to the saw. *Figure 7A* shows a perspective view of the left sub-bracket. LEFT A shows the same sub-bracket directly from the top. Write the letter “L” on the small face of the sub-bracket and a “1” on the large face as shown in LEFT A. Note that the 45-degree angle between the large and small faces is visible and pointing up or away from you. Now flip the same sub-bracket over until it is in the same position shown in LEFT B. Mark the large face with an “L” and the small face with a “2” as shown on Left B. Note that you are now marking the back of the same sub-bracket that now has an “L” and a “1” on the other side.

There are two left hand sub-brackets. First mark one, front and back, then the other. This completes the numbering of the left hand sub-brackets. You will end up with two identically marked left hand sub-brackets. You will notice that if you rotate the Left sub-bracket shown in LEFT B 180 degrees clockwise, it will look like LEFT D with the “2” and “L” upside down. If you return the sub-bracket to the position shown in LEFT A and rotate it 180 degrees counter clockwise, it will look like LEFT C.

The right sub-bracket is numbered in a similar fashion. Start with RIGHT A and place a “3” on the large face of the sub-bracket. Place an “R” on the small face. Flip the bracket over and mark a “4” on the small face and an “R” on the large face as in RIGHT B. Rotating Right B 180 degrees clockwise will produce the position shown in RIGHT D, with the “4” and “R” upside down. With bracket in position RIGHT D you can produce RIGHT C by flipping the bracket over to reveal the back side.

If your saw already has holes, move one sub-bracket until its slot is over the bolt hole. To do this, you may need to turn the sub-bracket upside down or reverse it front to back and again try right side up or upside down. Remember, each sub-bracket, right and left, can be put on the saw in four ways as shown in *Figure 7*. On some saws you will find that you must use two left sub-brackets on one side of the saw, and two right sub-brackets on the other instead than a right and left on each side.

Most saws are symmetrical; so one side of the saw will be the mirror image of the other in terms of how the sub-bracket bolts on. Mirror image means if you use the LEFT B sub-bracket positioned at the rear of the left side of the saw, you will use a RIGHT B position for the rear of the other side, and so on. When using existing holes in the side of the miter saw, it is OK if they are quite large, up to about 9/16”.

Bolting the Brackets to the Saw Base

Bolt the sub-brackets to the side of the saw using two 5/16” x 3/4” bolts. Place the serrated flange nut on the inside of the saw base without a washer. The teeth on this nut will grab the inside of the saw frame so you can tighten the bolt from the outside only.

Use a washer under the bolt head when attaching the sub-bracket to the saw base. If your saw does not have holes in the side you will need to drill them. To do this, simply align the fence to the saw as described in the above paragraph. Move the brackets until you align their slots with the areas on the side of the saw that are suitable for drilling. This means checking the inside frame of the side of the saw to make sure that when you drill the holes you have enough clearance to place the 5/16" serrated flange nut on the inside. Place the hole far enough to the side of the interior webs and ridges so the nut can be placed behind the hole without interference.

Mount the coupler bracket to the sub-brackets with the 5/16" x 3/4" bolts, using the serrated flange nuts to secure the assembly.

Installing a Dual Miter System

Set up your two saws side by side on your bench top or perhaps you wish to build a simple stand from 2x4s and a sturdy piece of plywood as shown in *Figure 8*. Align the two saws so they are parallel. A piece of moulding should be able to pass freely from one saw to another. In the center, the saws may touch each other or have 1/4" space between them. Mark or center punch each hole in the feet of the saw to indicate the drilling position for the bolt holes. Remove the saws and drill a 5/16" hole for each of the saw feet. Hammer a T-nut (A) into the underside of the table for each bolt hole. After the extension tables have been mounted on your saws, they may be bolted to the table using bolts and washers.

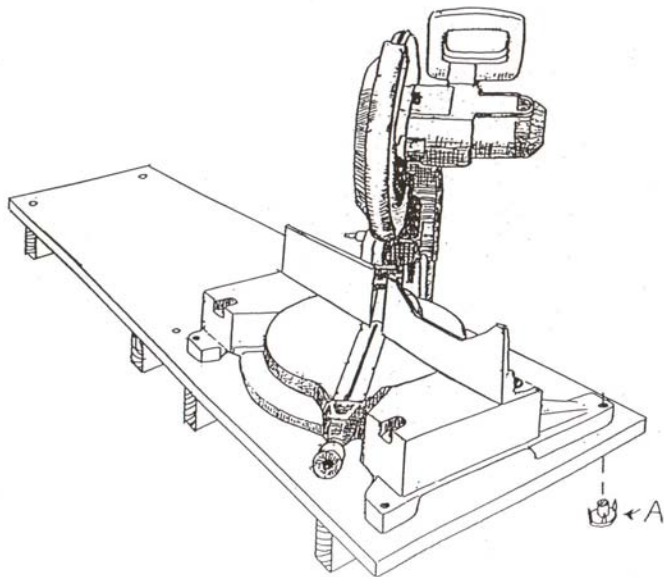
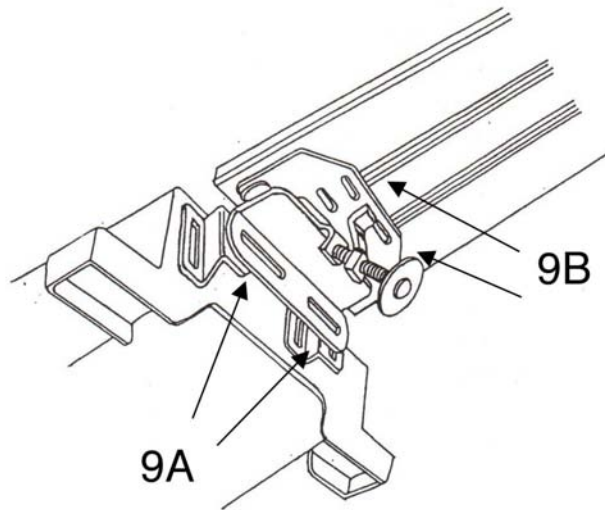


Figure 8

Section Four: Adjusting the Extension Table to the Saw

On free standing systems, unfold the leg and secure it with the T-handle in the open position. Adjust the leg for height, whether a bench-top or free standing system. Engage the coupler plate with the coupler bracket by mating the coupler holes with the bracket pins. Tighten the hand wheel on the coupler plate until the free play is gone, then 1/8 to 1/4 turn more. Don't over tighten. Adjust the leg for height and tighten the T-handle. Note: if you are using a bench-top model and can't easily reach the hand wheel on the coupler, raise the saw higher on the stand top with 2x4 blocks. If the wooden stand top is wider than the saw, trim down the width of the stand top until it is just slightly wider than the saw.

Using a straight edge (a 4-foot level will work fine), align the surfaces of the saw with those of the extension table. To do this, first loosen the bracket bolts as shown in *Figure 9A* and move the connector bracket up or down until the extension fence is level with the table of the saw and the fence of the extension is approximately parallel with the saw fence. Having just enough give in the tightness of the bolts to allow for movement only after a sharp blow with a mallet seems to be the most effective tightness to shoot for. Tighten the two bolts securely once the two surfaces are level. Now loosen the four connector plate bolts (*Figure 9B*) and align the fence of the extension until it is parallel with the fence of the saw. This adjustment allows for left/right pivoting movement. Re-check the fence for square, repeating the adjustment procedures if necessary, then securely tighten all adjustment bolts. After a few days the couple mechanism may "wear in" and slight adjustments may be necessary. Be sure the hand wheel is tight as noted in the above paragraph when making adjustments.



(Figure 9)

Section Five: Installing the Measuring Grids

Before installing the measuring grids on the fences, set your saw to a 45 degree angle. Be sure that there is a gap of between 1/8" and 1/4" between the fence extension and the saw. This will allow you to adjust the extension tables in or out if it ever becomes necessary to adjust the grids.

Two grids are supplied with the standard 50 inch wings of the Quadrant system, one for each side of the table. These will extend the grid to about 58 inches. Longer tables are available for the right side of the saw with a second grid section to allow measurements to about 96 inches. For longer tables, the following grid installation instructions are slightly varied, so please read through the entire set of application instructions before beginning the application process.

Step One: Deciding How to Apply the Measuring Grid

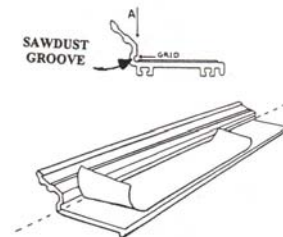
If you set the grids with a built-in cutting allowance of 1/8", each time you cut a piece of molding it will automatically be cut 1/8" larger than the measurement indicated. Thus if you set the molding on the 12 1/2" measurement, it will actually be cut at 12 5/8". Most framers cut with a 1/8" allowance (so the frame will be 1/8" larger than the art work to allow for adjustments) and by setting the grids to add the 1/8" allowance automatically, you are saved the inconvenience of having to add 1/8" to every measurement. If you trim the center grids on Line A and place this dashed line against the saw blade teeth (Figure 8), you will set of the grid to automatically measure with a 1/8" allowance.

If you trim the grid to the solid Line B and place this against the saw teeth, you will have set the grid to cut a direct measurement that will not include a cutting allowance. Then, a 12 1/2" measurement will provide a 12 1/2" cut. Remember that all picture frame moldings are measured and cut at the inside rabbet of the molding.

After the grids are adhered to the saw (Step Three), it will be necessary to cut the grid where the saw turntable rotates against the saw frame. Before proceeding with the following steps, make pencil marks where the turntable meets the back fence of the saw (Figure 8A) so you will know where to start cutting the grid to free the turntable. When cutting the turntable free, it is easiest to start the knife at the rear of the saw and cut toward the front of the saw.

Step Two: Test Fitting the Grid

Before setting the self-adhesive grids on the saw and extensions, be sure that all surfaces are free from dirt, oil or wax. If necessary, wipe the table surfaces down with solvent and allow to dry. DO NOT peel any of the paper backing from the adhesive grid during trial fitting. The edge of the grid must be placed even with the vertical fences of the saw and extension tables. (Figure 10) The grid should not protrude into the sawdust

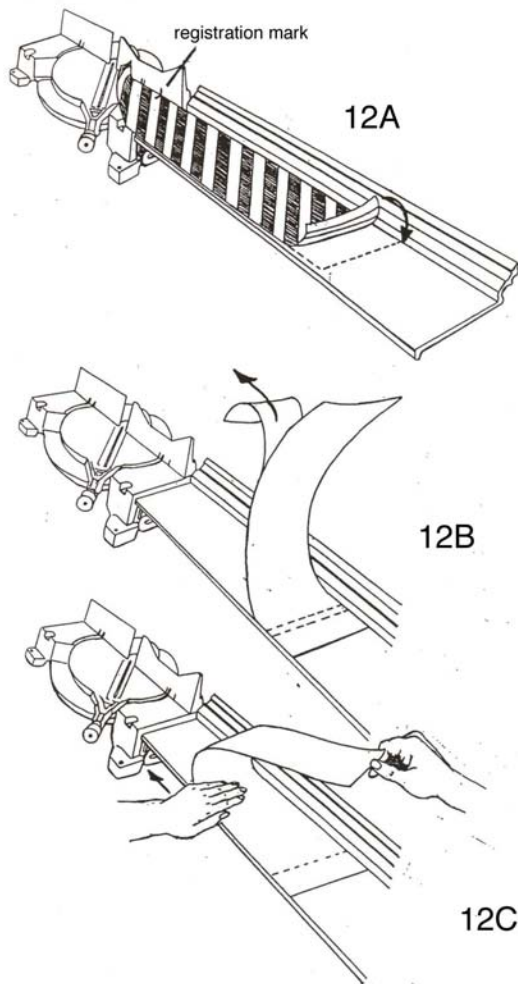
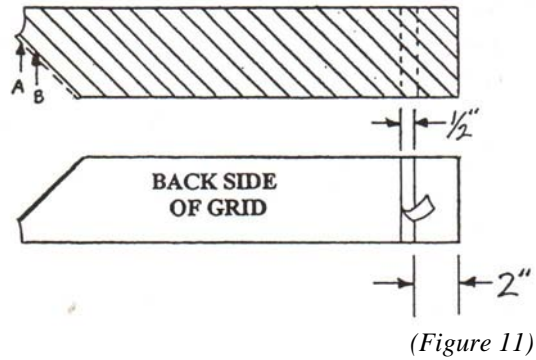


(Figure 10)

groove of the extension table or under the fence of the miter saw. Keeping the grids even with the edge of the vertical fences can be easily accomplished by curling each end of the grid during placement. Once the grid is properly positioned against the saw blade and fence, make a registration mark with a pencil on the fence and grid as in *Figure 12A*.

Step Three: Positioning the Grid

Turn the grid over to expose the paper backing. Use a sharp knife to remove a 1/2" strip of the paper backing 2" from the end of the grid, being careful not to cut through the grid. (*Figure 11*)



Curl up both ends of the grid (*Figure 12A*) making sure that the exposed adhesive strip is held above the table surface. Push the curled ends of the grid against the fences of the grid and extension table and align the pencil marks on the grid and fence. When the grid is accurately positioned, allow the curled end where the adhesive is exposed to lie down on the table, pressing it down just enough to lightly adhere it in place. Do not rub the adhesive down forcefully in case you need to re-position the grid. Bring the saw blade down against the grid and check that the grid just touches the teeth. Check to be sure that the grid lies straight on the table and is even with the vertical fences. If it must be re-positioned, carefully peel up the grid and repeat the process described in this paragraph. Once

(*Figure 12*)

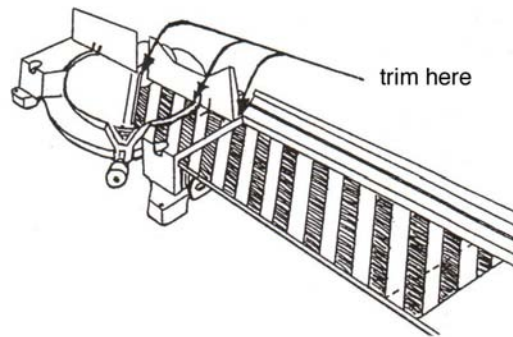
you are sure it is properly positioned, rub hard on the grid over the 1/2" strip where the paper backing was removed. The grid can be carefully removed and repositioned if a small strip of adhesive is sticking to the table, but when a large portion of the grid has been adhered to the table, it will be nearly impossible to move.

Step Four: Placing the Grid on the Saw

Pick up the end of the grid nearest the saw blade and begin to peel off the paper backing. (*Figure 12B*) Raise the grid vertically until you can peel the paper backing off all the way to the portion of the grid that is already adhered to the saw. Once the paper backing is completely removed on this section of the grid, allow the grid to slowly roll back down onto the table (*Figure 12C*) until it is adhered all the way to the saw blade slot. Rub the grid firmly to affix this portion of the grip closest to the blade. Repeat the process of peeling the paper backing and letting it roll onto the fence for the remainder of the grid.

Step Five: Trimming Grids to Size

Using a razor blade or very sharp knife, trim the grids to reveal the gaps in the saw table and the fence. (*Figure 13*)



(*Figure 13*)

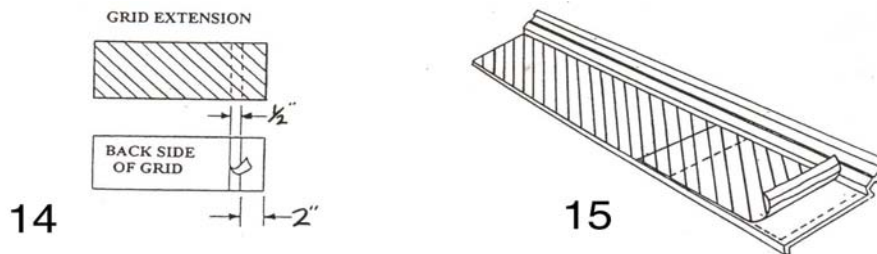
Follow the same procedure for the other side of the saw.

Installing Extension Grids on the Extended Length Wings

If you specially ordered a longer wing for your Quadrant, please follow the instructions below to install the extension grid to the longer wing.

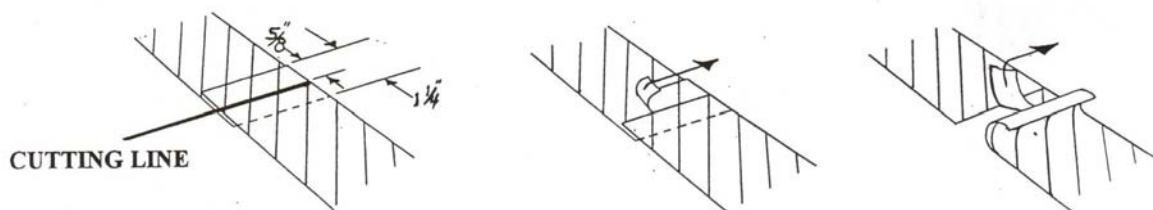
The grid extension will continue the measurements from 60 inches to 96 inches. There is an overlap of about 1 1/4" where the grids meet. The overlapped grids will be cut **AFTER** they are adhered to the saw table, so follow these procedures carefully.

Turn the extension grid over to expose the paper backing and cut away a 1/2" strip of the backing about three inches from the end of the grid (*Figure 14*). Curl up the end of the grid where the adhesive is exposed and position the other end of the grid so it overlaps the end of the primary grid. It will overlap the center grid by about 1 1/4" and the grid measurements will be continuous from one grid to the next (*Figure 15*). When the grid is properly positioned, allow the curled end to relax onto the table, pressing it down just enough to lightly adhere it in place. Check to see that it overlaps the other grid accurately and lies straight on the table an even with the back fence, as with the center grid. When satisfied with the position, rub hard on the grid surface of the 1/2" of exposed adhesive to firmly adhere it to the table.



(*Figures 14 and 15*)

Pick up the end of the grid extension and peel off the 2 inch section of paper backing. Allow this end to relax onto the table and rub firmly on top to set the adhesive. At this point there will be one section of paper backing underlying most of the grid extension and 2" of paper backing underlying the end of the center grid. Allow this part of the grid to relax back onto the table but DO NOT rub it down to set the adhesive. Remove the paper backing from the underside of the grid extension and roll this grid section back down on the table until it overlaps the end of the center grid by about 1 1/4". Do Not rub this section down to set the adhesive.



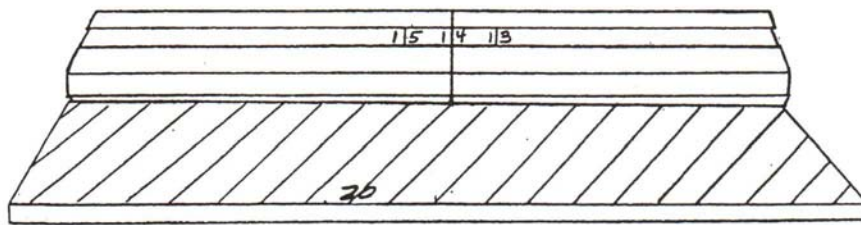
(*Figure 16*)

At this point the grid extension will be overlapping the end of the center grid (*Figure 16*). Use a small square as a guide to make a pencil mark indication the cutting line approximately halfway between the overlapping ends of the grids. This pencil mark will be about 5/8" from the end of the overlapped grid. Cutting on this line will cut through both grids at once, making a nearly invisible joint. Place a square on the cutting line and hold firmly in place. Use a sharp knife to cut through both grids at the same time (very carefully). Try to use enough pressure to cut both at once, but if you need to make a second pass with the knife try to follow the first cut exactly. Once the cut is made, peel up the 5/8" section of the grid extension that overlaps the end of the center grid and

discard. Carefully peel up the end of the grid extension that is overlapping the end of the center grid. Peel the end of the grid extension up just enough to expose the end of the center grid (about 5/8" wide), which is underneath. Peel up the 5/8" strip of center grid and discard. Allow the end of the grid extension to relax back onto the table, completing the splice. Burnish the area where the two grids meet with a smooth rounded object (like the curved surface of a teaspoon) so both edges lie flat. Burnish the entire surface of the grids to set the adhesive securely.

Section Six: Installing the Standard rulers on the Extension Fence

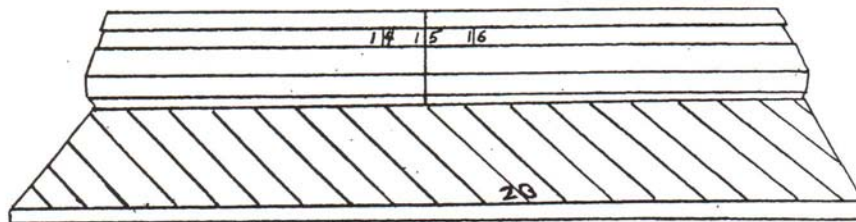
Standard self-adhesive 1/2" wide rulers are installed in the ruler groove on each side of the extension table (*Figure 17*). On the left side table, draw a line extending the 20 inch grid measurement vertically onto the fence of the extension. Align the 14" ruler indicator with this mark and peel off the adhesive backing to adhere the ruler. Use a tin snips to trim the ruler ends about 1/16" back from the end of each extension. (You can also cut the ruler by scoring it hard with a sharp knife and folding it at an acute angle where the score mark was made. It will snap off at the score line.)



FOR LEFT SIDE OF SAW

(*Figure 17*)

For the right side of the saw, extend the 20" grid measurement vertically as you did on the left side, but align the 15" ruler graduation with this mark rather than the 14" line as was done on the left side. (*Figure 18*)



FOR RIGHT SIDE OF SAW

(*Figure 18*)

Section Seven: Measuring and Cutting Picture Frame Molding using the Grid or the Standard Ruler

Now that you have installed the grid and standard ruler, there are two ways to measure molding on the tables. Each method has advantages. Because the grid measurement is set at the same angle as the saw blade (45 degrees) it automatically positions the molding accurately regardless of the size or width of the molding. The disadvantages of the grid is that it is harder to read than the standard ruler, which can lead to errors if one is not careful. The standard ruler, combined with the hairline indicator on the measuring gage, is very easy to read. However, each time you use a different width of molding, the stop gage must be re-calibrated for the different molding width. When you are cutting frames that are all of different molding widths, you will probably want to measure with the grid rather than adjust the stop for each type of molding. When you are cutting several frames using the same width of molding, it will be convenient to use the gage so you can use the standard ruler. This is especially true of aluminum moldings, which often have the same rabbet width, regardless of style.

The measuring gage has an adjustable molding stop. The pointer of the stop only needs to be adjusted if you intend to measure with the standard ruler. It does no matter what position the pointer is in if you are measuring with the grid.

Measuring with the Grid

To measure with the grid, place the rabbet of the molding on the desired measurement. For example, to cut a 20 inch frame, slide the molding (the end must already be cut at 45 degrees) until the rabbet is positioned over the 20 inch grid mark. While holding the molding in place, slide the measuring gage until the pointer contacts the molding. Lock the lever of the measuring gage and use the saw to cut the other end of the molding. When you are using the grid, disregard the measurement indicated on the hairline indicator on the standard ruler.

Measuring with the Standard Ruler

To measure with the standard ruler, you must first adjust the measuring gage for the width of molding you are using. This only takes a few seconds. To cut a 20 inch frame, place the rabbet of the molding (the end must already be cut to 45 degrees) on the 20 inch graduation on the measuring grid. Unlock the T-handle on the stop gage pointer and slide the pointer into its tube until the 45 degree end nearly touches the end of the tube. Slide the gage until the hairline indicator is over the 20 inch mark and lock the gage in place with the lever. Slide the gage pointer until it comes into contact with the molding. Now the standard ruler can be used for any measurements as long as the width does not change. The standard ruler can be used with molding that have rabbet widths of up to 1 7/8".

QuadrantStop™ Precision Fence Gage

It is necessary to “break in” your aluminum fence to get the smoothest sliding action with the QuadrantStop. Fully unlock the lever on the QuadrantStop and place it on the fence and apply a few drops of light oil to the aluminum as shown in Figure 1. Slide the QuadrantStop along the entire length of the fence applying more oil until the gage slides freely all the way. Wipe off excess oil. From time to time you may need to add a small amount of lubrication to get the smoothest sliding action with your gage. You may use a slight amount of oil, automobile wax or a slight amount of stick wax.

If the QuadrantStop is too tight to slide freely, place a thin metal shim or piece of sheet metal between the fence and the stop. Fully lock the lever. This will stretch the QuadrantStop enough to allow it to slide freely.

From time to time, oil the moving parts of your QuadrantStop. Use the oil on all the parts except the eccentric mechanism where it bears against the locking gate. This point should be greased.

It is not always necessary to completely lock the lever when using the gauge. To lessen wear and tear, lock completely only for heavy-duty use. The QuadrantStop has tremendous holding power.

QuadrantStop is a dust-free fence gage. It has two dust seals made of sticky back Velcro on the Lexan viewplate. These seals extend downward to wipe the ruler of any dust that may catch on it. If you remove the viewplate, make sure to reposition it so the Velcro protrudes lightly below the QuadrantStop body. If you need to replace the Velcro, it is available in the sewing section of most department or drug stores. Use the pile side, not the hook side.

To lock the QuadrantStop on your fence, pull the lever towards you. To unlock the gage, place your fingers on the top rear of the QuadrantStop and push the lever back with your thumb. The lever must be fully unlocked to slide the gauge or to remove it from the fence.

Adjusting the QuadrantStop and Installing Rulers into your Ultrafence

Two 5/16” bolts are supplied with the gage to provide for adjustment. Place the bolts into the holes on the stop bar with a nut on each side. Leave an equal amount of thread showing on each side. After securing the QuadrantStop to the fence, cut a board 20 inches long, leaving it in position on the saw table. Slide the QuadrantStop up to the board and lock it into position. Mark the position of the hairline pointer on the fence. Remove the QuadrantStop and position the stick-on tape so the 20 inch calibration is lined up with your mark. Be sure the fence is free from dirt and oil before applying the

stick-on tape. Wipe with solvent if necessary. Contact cement may be used to secure the tape if the sticky backing does not hold well enough.

The lower tape groove holds a 3/4" tape refill. This tape is not supplied with the fence, but can be ordered separately or purchased locally. Position the tape so the zero mark corresponds with the saw blade. Using a tin snips or aviation shears, cut the tape so it will fit the fence properly. A clamp is provided to hold the tape in position in the groove. Drill a 1/4" hole 5/8" from the end of the fence. Center this hole in the groove on the back of the fence and apply the 1/4" x 3/8" bolt from the back of the fence. Cut the tape so that when properly adjusted, its end will fall in the middle of the clamp tab. In this position it can be adjusted slightly to accommodate saw blade changes.

Be sure that your fence is securely bolted to the base of the tool before use. The fence should always be properly aligned with the saw blade or dangerous kickback may result. On radial arm saws, do not bolt the fence to the movable portion of the saw table. Instead, bolt it to the fixed portion of the table to prevent movement during use.

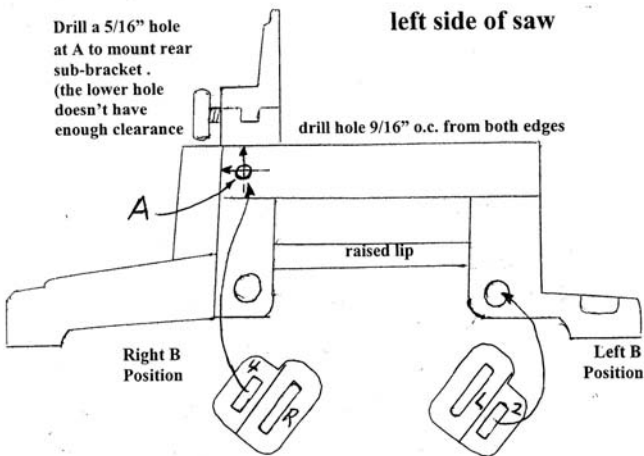
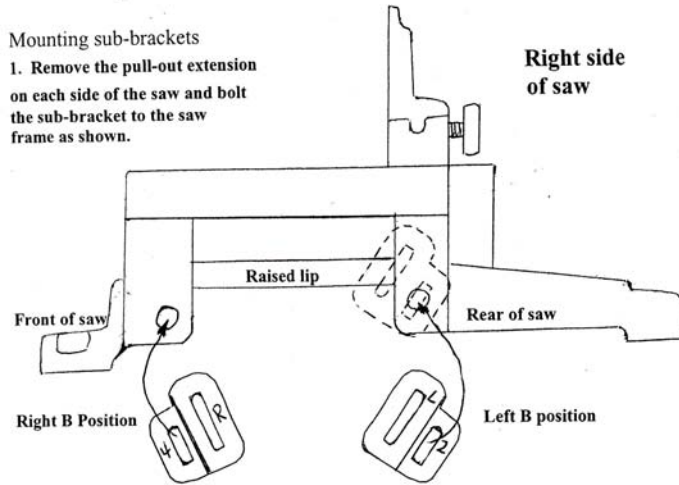
APPENDIX: Individual Saw Mounting Instructions

Bosch 3915

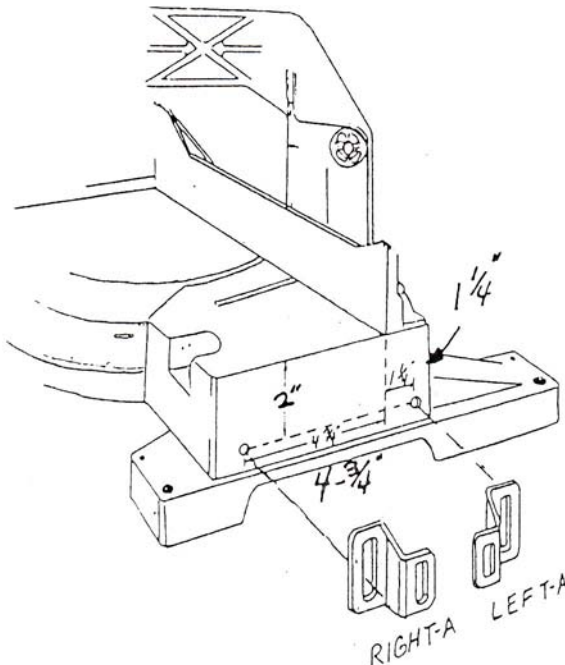
Use the existing holes in the sides of the saw to mount the sub-brackets. On the left side of the saw you will note that the side of the saw can be moved in and out. The sub-brackets can be bolted to this side extension whether it is extended or not. If the side extension is extended slightly or all the way out, the sub-bracket bolts will only go through the first set of holes, with flange nuts on the inside. If the side extension is all the way in, the sub-bracket bolts will go through both sets of saw frame holes, with the flange nuts on the inside. In this case, be sure to place four 1/4" washers in the space between the two frame holes. If the space between the frames is not filled with washers the bolt will bend the inside frame as it is tightened. Washers larger than a 1/16" should not be used in this space because they will not clear one of the frame gussets. If in doubt, extend the side slightly and bolt through the single set of holes. The right side of the saw has only a single set of holes.

For the right side of the saw, bolt a left hand sub-bracket in the LEFT D position in the hole towards the rear of the saw. Bolt a right hand sub-bracket in the RIGHT D position in the hole towards the front of the saw. There is a protruding lip on this saw and the lower part of the sub-bracket will rest against it. In most cases this lip needs to have a slight amount of material filed off its end (about 1/16 inch) so the sub-bracket will be able to rest vertically on the saw. If this is not done, the bracket may not be able to adjust low enough and the extension table will be 1/16" higher than the saw table.

Bosch 4412, 5412L



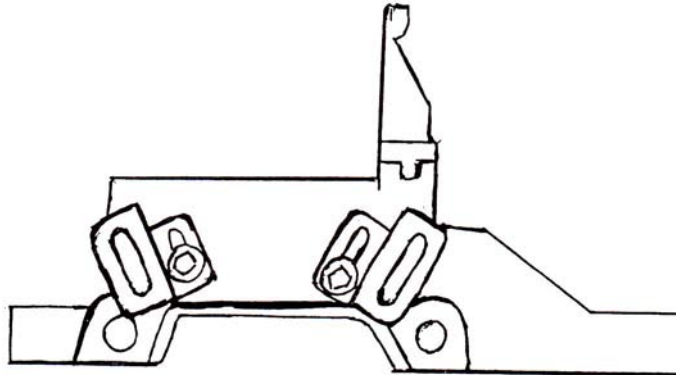
Dewalt 704, 705



Two holes must be drilled in each side of the saw. The distance between the holes is six inches. On the right side of the saw, use a left hand sub-bracket in the LEFT A position on the rear of the saw and use a right hand sub-bracket in the RIGHT A position on the front of the saw. On the left side of the saw use a left hand sub-bracket in the LEFT A position on the front of the saw and use a right handed sub-bracket in the RIGHT A position on the back of the saw.

Dewalt 706

Two holes must be drilled in each side of this saw. On the right side of the saw, draw a pencil line to extend the vertical line of the saw fence down the side of the saw. Both holes are drilled toward the front of the saw from this line. The first hole is 1/2" on center forward of the fence line, the second is 2-1/2" on center forward of the fence line. Thus they are 2" on center apart. Each hole is 1 5/8" on center down from the top of the saw table. The left side of the saw is a mirror image of the right.



For the right hand of the saw, use a right hand sub-bracket in the RIGHT B position toward the rear of the saw. Use a left hand sub-bracket in a LEFT B position toward the front of the saw. For the proper adjustment clearance the top of each sub-bracket must be tilted slightly.

Dewalt 708

Drill the holes in the saw base the same manner as the Dewalt 706 as outlined above. On the right side of the saw, mount a right hand sub-bracket in the RIGHT D position towards the front of the saw, and a left hand sub-bracket in the LEFT D position towards the rear of the saw. On the left side of the saw mount a left hand sub-bracket in the LEFT D position toward the front of the saw, and a right hand sub-bracket in the RIGHT D position towards the rear of the saw.

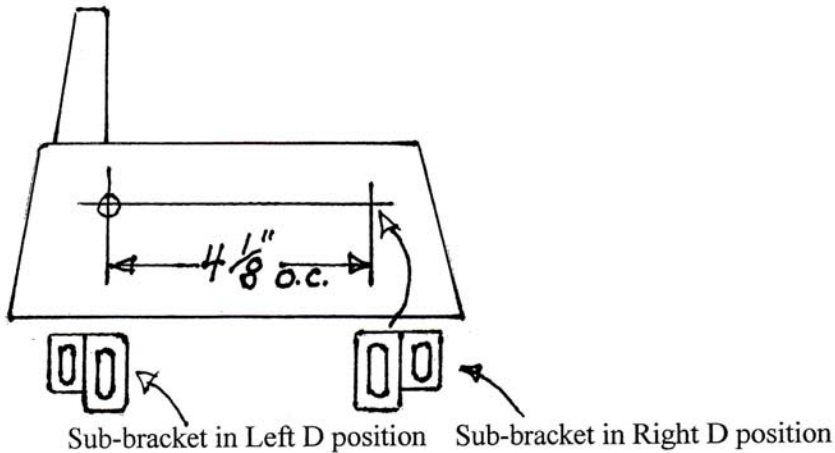
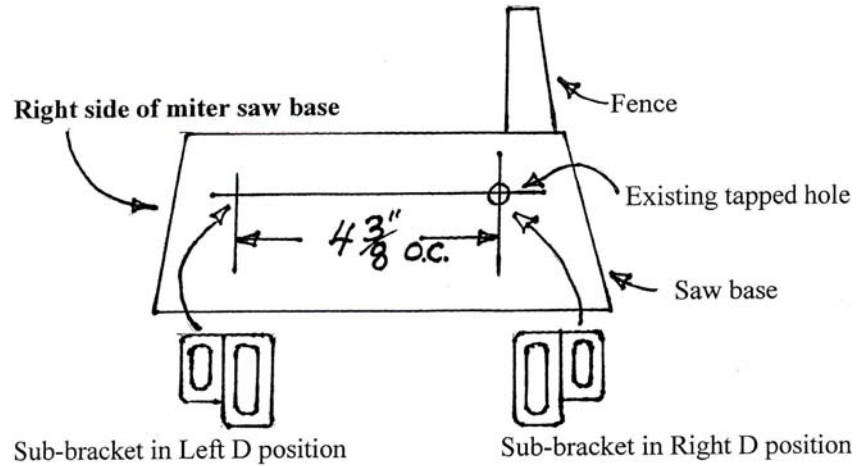
Dewalt DW715, DW716

Remove the fence extensions that came with the saw. The holes vacated by the factory extensions will be used to anchor the sub-brackets to the saw base. Using washers in front of and behind the holes, mount the sub-brackets in position. The sub-brackets should be aligned so the shorter end of the bracket is against the saw base and the longer sides face inward and point upwards towards the table of the saw. The sub-brackets may need to be tilted outwards to give some extra height when mounting the bracket.

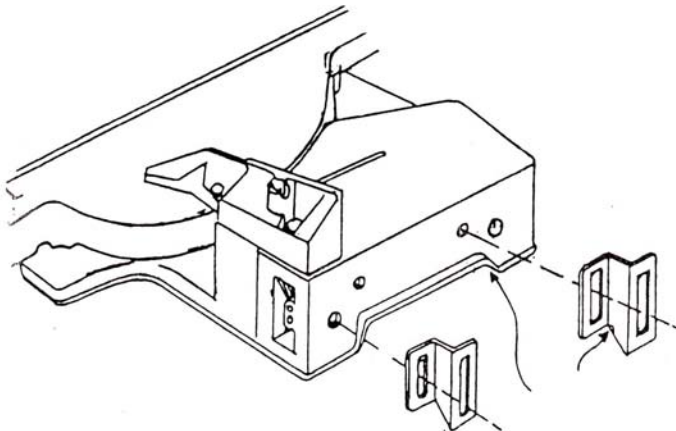
Dewalt DW718

There is an existing, tapped hole in each side of the saw. Expand these holes with a 5/16" drill bit on each side of the saw. On the right side of the saw, drill another hole 4 3/8" on center to the left of the tapped hole. For an accurate center punch, first drill the hole with a 1/8" drill, then expand to a 5/16" drill. On the left side of the saw, drill a hole 4 1/8" to the right of the existing tapped hole.

Drill as indicated above. Mount the sub-brackets in the positions shown below on each side of the saw using the 5/16" bolts provided. Proceed with assembly, using a sub-bracket in the LEFT D position at the front of the saw and a sub-bracket in the RIGHT D position at the back of the saw base.



Hitachi C10 FS, C8 FB or C8 FB2



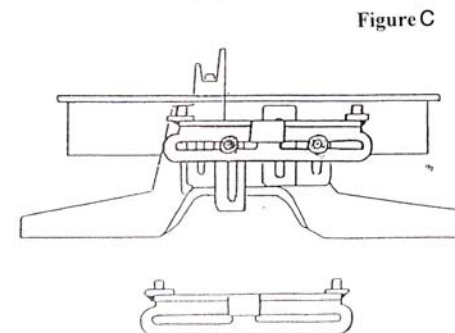
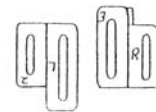
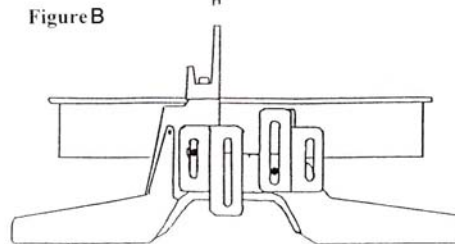
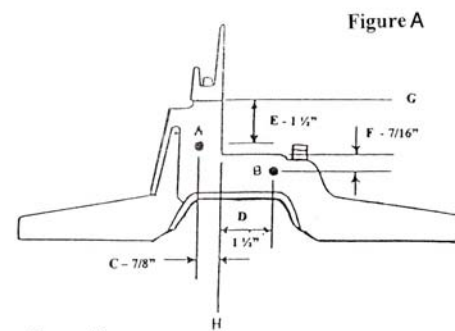
There are four holes in each side of the saw. On the left side of the saw use a sub-bracket in the LEFT D position in the lower hole near the rear.

It will take a 1-3/4" long 5/16" bolt. Use one or two washers under the bolt head where it contacts the sub-bracket and use a serrated flange nut without a washer inside against the saw frame. Toward the front of the saw, use a sub-bracket in the LEFT D position using the upper hole, second from the front. This will also take a 1-3/4" bolt. This front sub-bracket will contact the protruding lip on the side of the saw. File a small notch in the sub-bracket so it can be adjusted low enough to clear the top of the saw table. The right side of the saw is a mirror image of the left side. Use two sub-brackets in the RIGHT D position for the right side of the saw, using the same mounting holes.

Makita LS 1013

Two holes must be drilled in each of the saw.

Figure A on the left shows the dimensions for drilling the left side of the saw. The right side is drilled the same way. Hole A is located 7/8" on center (C) behind the fence (H) and 1-1/2" below the table-top (E). Hole B is 1-1/2" in front of the fence (D) and 7/16" below the nearest horizontal frame surface (F). Hole B should be located carefully because the serrated flange nut will be tight on the inside if the hole is too high and the sub-bracket will not fit if it is too low. Drill with a 1/8" bit first and finish with a 5/16". If Hole B is slightly too high or low, elongate the hole with the side of the drill bit to correct. The elongated hole will not cause any problems, as the frame is very strong.



Mount the sub-bracket as shown in *Figure B*.

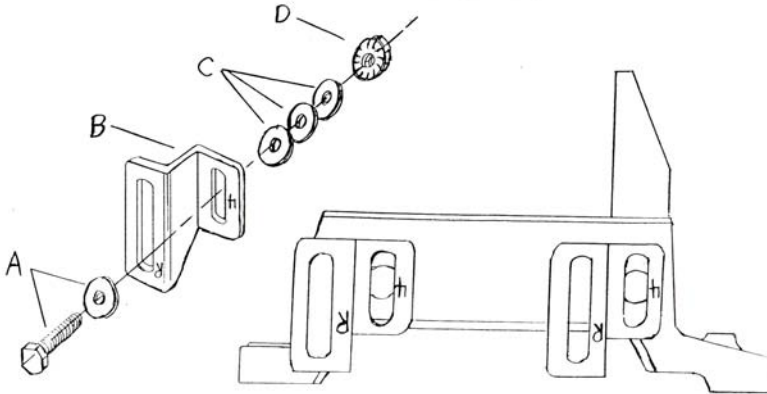
Toward the rear of the left side of the saw mount a sub-bracket in the LEFT D position (see *Figure 5*) At the front, mount a sub-bracket in the RIGHT A position. Use 5/16" x 3/4" bolts with a washer under the bolt head and the flange nut inside the saw frame without a washer. Bolt the sub-bracket with the same bolt combination, with the bolt heads facing you and flange nuts behind the sub-brackets as shown in *Figure C*.

Makita LS 1011

On the right side of the saw, use a right hand sub-bracket for both the front and rear holes of the saw. Both sub-brackets are in the RIGHT D position. On the left side of the saw, use two left hand sub-brackets in the LEFT D position. This saw has a small lip near the

mounting holes. Either file this lip flat where the sub-bracket contacts the side of the saw or place a 5/16" washer between the sub-bracket and the side of the saw to keep the sub-bracket clear of the raised lip.

Makita LS 1030N



Bolt the sub-brackets in the RIGHT D position as shown on the diagram. The sub bracket should be bolted to the saw using a 5/16 x 1 1/4" bolt and washer (A) on the outside of the sub-bracket (B). Three washers (C) are placed between the sub-bracket and the saw so the sub-bracket will clear the lip protruding from the side of the saw. Finally, a 5/16"

flange nut (D) is placed on the inside of the frame of the saw. No washers are placed on the inside of the saw frame, only the flange nut. After the sub-brackets are bolted to the saw, attach the bracket to the sub-bracket as indicated in the instruction book. The left side of the saw will be a mirror image of the right. Sub-brackets on the left side will be in the LEFT D position.

Makita LS 1211

For the right side of the saw use a right hand sub-bracket in the RIGHT A position (*Figure 5*) in the hole toward the front of the saw. Use a left hand sub-bracket in the LEFT A position in the hole at the rear of the saw. The left side of the saw will use a left hand sub-bracket in the LEFT A position on the hole toward the front of the saw and a right hand sub-bracket in the RIGHT A position at the rear of the saw. This saw has a small lip near the mounting holes. Either file this lip flat where the sub-bracket contacts the side of the saw or place a 5/16" washer between the sub-bracket and the side of the saw to keep the sub-bracket clear of the raised lip.

Makita LS 1212

For the right side of the saw use a right hand sub-bracket in the RIGHT D position for both holes (*Figure 5*) for the left side of the saw use a left hand sub-bracket in the LEFT D position for both holes.

Makita 1214

The base of the Makita 1214 is the same as Makita 1013 so please use the instructions and diagram above.

Milwaukee 6496-6 10"

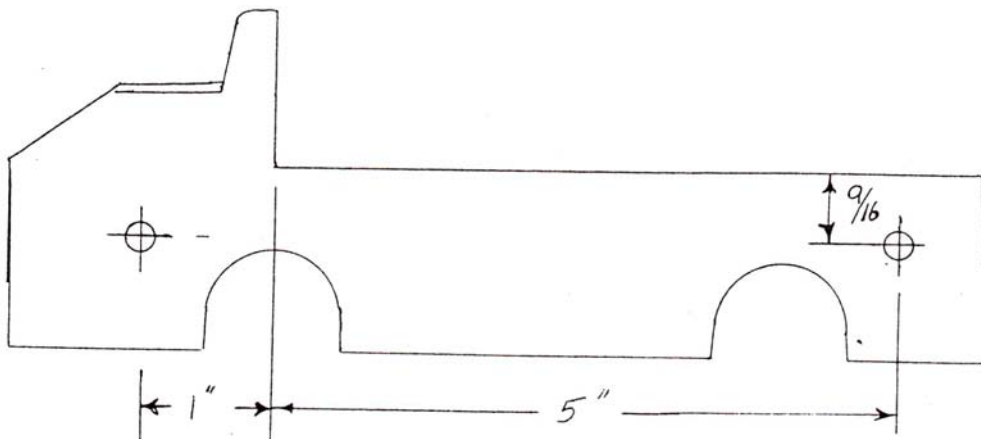
On the right side of the saw use a left hand sub-bracket in the LEFT D position on the rear of the saw, use a right hand sub-bracket in the RIGHT D position on the front of the saw, move the sub-bracket 25 degrees clockwise so the bottom holes will align with the angle bracket. On the left side of the saw, two holes must be drilled if you wish to use the extension piece on the saw. Drill two holes approximately 2 1/2" apart. Drill 2 1/2" from the back of the saw, on the left drill 1 7/8" from the front of the saw. Use a left hand sub-bracket in the LEFT D position on the right side and use a right hand sub-bracket in the RIGHT D position on the left side move 25 degrees counterclockwise if needed to fit.

Porter Cable 3802, 3807

An auxiliary bracket must be used to mount the regular brackets on this saw. These are not supplied as standard parts. Please call 1 800 441-1388 to obtain your auxiliary brackets. They will be shipped immediately at no charge.

Rigid MS 1250

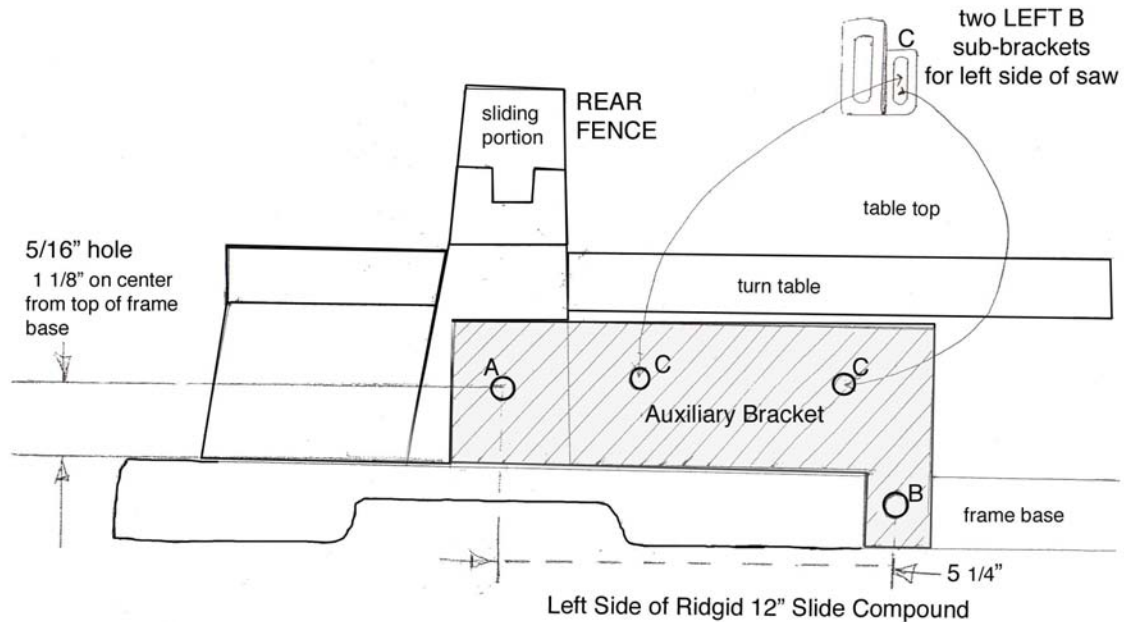
The right side of the saw has holes that can be used to mount the sub-brackets. On the left side of the saw, drill two 5/16" holes as indicated on the diagram below. On the left side of the saw, use a left hand sub-bracket in the LEFT A position toward the front of the saw, use a right hand sub-bracket in a RIGHT A position towards the back of the saw.



Ridgid 12" Slide Compound Saw

The diagram below shows the left side of the saw. Assembly instructions for the right side of the saw will be a mirror image of the instructions provided below.

Place the auxiliary bracket so its lower edge is parallel with the frame base as shown. Hole *A* should be approximately centered on the rear fence column and 1 1/8" up from the top of the base as shown. Drill a 5/16" hole at this position and insert a 5/16" x 3" bolt into the hole. Secure with a flange nut on the inside of the saw frame. Drill a hole into the frame base at *B* and secure in the same way.



Mount the sub-brackets in the LEFT B position as shown at the upper right of the illustration. The small slotted hole *C* in the sub-bracket lines up at *C* and *C* on the auxiliary bracket (One sub-bracket at each position). Mount the sub-brackets in the RIGHT B position on the right side of the saw. Proceed with assembly and instructions as outlined in the instruction manual.



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