Example 2

**Crown Spring Angle = 38°**

Corner 1

Slopes down at 15°

Corners 2, 3 & 4

Corner 5

Corner 6
The only corners that you need to turn in the ceiling plane are corners 3 and 4. The rest of the corners will be a combination horizontal and vertical turn in each corner. Lets start with corner 1 and work through to corner 8.

- The most common error in cutting crown molding is using the wrong crown spring angle. Double check your crown spring angle...make sure you know your exact spring angle (see page 34 in the book on how to measure crown spring angle). Please note: There are two common spring angle crowns, 38 degree and 45 degree. However, there are many others. Also, some crowns that are labeled as 38 degree or 45 degree spring angle crown are undercut, when milled at the factory, up to 3 degrees. This results in an actual crown spring angle of 35 degrees or 42 degrees. This 3 degree difference will result in about a 1.5 degree change in your miter and blade tilt settings. If you are using 5” crown, you will have about a 1/4 inch gap at the ceiling (the larger the crown the wider the gap). I also provide extra tables for free download (PDF format) that contain 12,000 saw settings (miter and blade tilt settings vs. corner angle and crown slope angle). See Chapter 5 (page 50) for details of where to download the extra tables.

Here is the answer to this room.

**Corner 1** is just like joints A and B, 1st photo page 42…. Here you have two turns to make in corner 1, A horizontal turn (joint A) and a vertical turn (joint B). Use 1st photo on page 42 and the floor plan in this example as a reference.

Joint A is an inside horizontal corner at $91^\circ$ with a crown slope angle of $52^\circ$. Cut crown molding piece 1 and install it on the wall. Then cut the RH side of joint A (RH crown only needs to be about 4 or 5” long for crown piece 2) but do not install it. You will use piece 2 and cut it again to form the LH side of joint B which will then form the small wedge piece.

From the crown molding table page 36, the setting for corner 1 joint A ($91^\circ$ corner angle and $52^\circ$ crown slope) are: \[\text{Miter} = 31.2^\circ, \quad \text{BT} = 33.5^\circ\]

Joint B is an outside vertical turn corner angle at $180^\circ+15^\circ$ ceiling slope = $195^\circ$ with a crown slope angle of $38^\circ$. \[\text{Miter} = 5.9^\circ, \quad \text{BT} = 4.6^\circ\]
Please note for joint B you should double check the ceiling slope as described on page 42 last paragraph. Also, use the crown piece #2 you made for joint A RH side (above) to cut the LH side of joint B. The top of crown piece 2 should come to a point. Glue crown piece #2 in place and use this as a measuring point to get the length needed for crown piece #3.

At corner 2 draw a vertical line down the wall and draw an intersecting alignment mark as show on page 32. Use these intersecting lines and the bottom edge of crown piece 2 to measure length of crown piece 3.

**Corner 2** is just like joint C, 1st photo, page 42 and is a 150° inside corner in the vertical plane with a 38° crown slope angle. You will cut these just like the photos on page 41. From the crown molding table page 36…… Miter = 11.9°, BT = 9.2°.

**Corner 3** is just like joint B on page 47 (the photo on page 47 is opposite this exact condition). You will turn corner 3 in the plane of the ceiling. Remember in chapter 5, this will change your crown spring angle by the amount +/- the ceiling slope. But this will look good in this case. You will also make the turn for corner 4 in the ceiling plane and the crown will return to its normal spring angle of 38°.

The corner angle for turns in the ceiling plane should be measured in the ceiling plane….. see 3rd photo page 47.

Corner 3 is an outside corner of 272° in the ceiling plane with a crown slope angle of 52°. You will cut corner 3 just like the photos on page 30 (remember in chapter 5, page 38 last paragraph, where I said you could use your horizontal turn templates you made in chapter 4 to make turns in the ceiling plane). From the crown molding table page 35…………. Miter = 32.5°, BT = 34.5°

Please note that the crown molding that runs from corner 3 to 4 now has a spring angle of 38°+15°ceiling slope = 53° and leans outward by the amount the ceiling slopes (15°). Again the spring angle will correct itself after you pass corner 4.

**Corner 4** is and inside corner angle of 92° and is turned in the ceiling plane. Double check your corner angle as described for corner 3 above. The crown slope angle is 52°. This corner will be cut just like the 2nd photo on page 29. From the crown molding table page 36….. Miter = 30.7°, BT = 33.2°

**Corner 5** is just like joint D and E in the 1st photo on page 42. You made this type of turn for your corner 1.

Joint D is an outside vertical turn corner angle at 180°+15°ceiling slope = 195° with a crown slope angle of 38°. From the crown molding table page 36, ….. Miter = 5.9°, BT = 4.6°

Joint E is an inside horizontal corner at 92° with a crown slope angle of 52°. From the crown molding table page 36, the setting for corner 5 joint E (92° corner angle and 52° crown slope) are: Miter = 30.7°, BT = 33.2°

**Corner 6** is opposite of corner 5 and is just like corner 1. This will be cut like joints A and joint B on page 42.
From the crown molding table page 35, the setting for corner 6 joint A (90° corner angle and 52° crown slope) are: Miter = 31.6°, BT = 33.9°

Joint B is an outside vertical turn corner angle at 180°+15°ceiling slope = 195° with a crown slope angle of 38°. Miter = 5.9°, BT = 4.6°.

**Corner 7** is identical to corner 2 and will be cut exactly the same. See corner 2 above for details. From the crown molding table page 36…… Miter = 11.9°, BT = 9.2°.

**Corner 8** is exactly like corner 5. The only difference is the horizontal corner angle is 90° instead of 92°. Reference photo on page 42 joints D and E.

Joint D is an outside vertical turn corner angle at 180°+15°ceiling slope = 195° with a crown slope angle of 38°. From the crown molding table page 36, …. Miter = 5.9°, BT = 4.6°

Joint E is an inside horizontal corner at 90° with a crown slope angle of 52°. From the crown molding table page 35, the setting joint E …. Miter = 31.6°, BT = 33.9°

Please let me know if I can be of any further assistance

Sincerely yours
Wayne Drake, President
CompoundMiter, Inc.