



# CUMING MICROWAVE

## VELCRO INSTALLATION

RoHS  
Compliant

### APPLICATION NOTE 300-16

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The Velcro Pile is factory installed on the absorber bases. The Velcro hook comes in ~25yd rolls with self adhesive backing. Peel off the release plastic sheet and press the adhesive side firmly against the wall. Metal wall surfaces should be free of oil film and dirt. A wipe down with denatured alcohol on a cloth will usually remove any oil film from modular shielding panels.

If installing Velcro on raw wood we recommend giving the wood a coat of urethane varnish. The water based urethane products work well and are easy to use. You only need to treat the wood where the Velcro hook is to be attached.

We do not advocate using Velcro installation on absorber larger than 24" tall although 36" tall material have been installed using Velcro (3strips / piece on the walls and 4 strips / piece on the ceiling).

We recommend using a mechanical fastener (screw) every 3' to prevent peel off if the adhesive bond fails.

#### **LAYOUT FOR VELCRO HOOK:**

Start by snapping chalk lines over the entire room, showing absorber piece location. Follow the layout drawings. This is not only ensures that pieces are put in straight lines, but also ensures that the plan is being followed before anything is installed.

Install all the velcro hook next using the velcro layout details. Precision is not too important, as long as strips are within about 1 inch of where they are shown. If you use the chalk lines guides, this should go very quickly.

On vertical walls, the Velcro hook runs vertical.

Start at your reference point. Measure in 4" and place the first line of hook, then a 16" spacing to the next line of hook, Then alternate 8", 16", 8" 16" etc on. Two lines of hook will engage each absorber.

On the ceiling, you may run the hook lengthwise or widthwise across the room. Lengthwise is often easier. Use same layout as on walls; i.e., first line of hook 4" from the reference point, then 16" and alternate 8", 16", 8", 16" when using full-size absorber pieces.

#### **REFERENCE POINT:**

This is at the edge of the CORNER BLOCKS. Check your layout and CORNER BLOCK dimensions. Typically, the layout is such that the end wall reference point is a distance from the side walls, which is equal to the CORNER BLOCK thickness. On the side walls, the reference point then is a distance from the end wall—equal to the length of the CORNER BLOCK.

## **IMPORTANT!**

### **Please note:**

If the layout shows a partial-width absorber piece mating up against the CORNER BLOCK, adjust the spacing of the first two hook lines so that the two lines of hook will engage the absorber base on the piece fairly evenly spaced. Mark where the edge of the partial-width absorber will be, and make this your reference point.

We usually recommend bonding the CORNER BLOCKS in place using contact adhesive in a 6" to 8" wide strip along the front edge. This drastically eases installation.

If you must use the Velcro, designate only one strip of hook to the CORNER BLOCK up through 36" length.

### **ABSORBER INSTALLATION:**

Always start installation at a floor corner. I recommend the floor corner at the receiving wall and build up. On the end wall, start at the floor corner nearest the entrance and build up and away from the entrance.

Firmly press the first absorber panel in place mating the corner blocks then push it against the Velcro hook firmly. If gaps occur reach behind the absorber base and gently pull the absorber panel away from the hook and reposition. **(If you do not reach behind the base you may tear the Velcro pile away from the absorber base and it then has to be rebonded).** If you have problems with the absorber not sliding into place it will help to place paper between the mating absorber sides, this will reduce the friction. The paper naturally must be removed after positioning the absorber against the hook.

Take care when installing the top row along the walls. Place the ceiling corner block on the ceiling using either Velcro or adhesive to hold the front edge against the ceiling, the top row of absorbers will push the corner block up in place. Field trim the top row absorber if needed, a 0.25 to 0.5" undersized absorber goes into position easily without too much resistance and the corner block will naturally drop down and rest on the absorber leaving no gap

If you must use Velcro for the Corner Block installation then use one strip of Velcro hook. The Velcro strip must run on the side wall and the ceiling at a distance from the end wall which is 2" to 6" less than the length of the CORNER BLOCK.

### **ADDITIONAL INFORMATION:**

- Some trimming is practically always required on site. Make sure the

trimmed surfaces are facing the Corner Blocks—out of sight.

- **Door absorbers should ideally be adhesive bonded on, so they do not shift after repeated opening and closing of the doors. Whenever possible the door absorber should be shop cut as a kit for best look and finish.**
- If you detect a small gap between absorbers, stuff it thoroughly with an appropriate size sliver of scrap absorber material. (A paint stirrer stick or spatula works well to help stuff these small gaps.)
- Floor absorber need no Velcro, Pack them tightly in place but do not bond or Velcro fasten them, the floor is often accessed for cable routing or other small repairs.

**A Good Hint:** Absorbers are best installed using to people. Cut a piece of cardboard to 24 inch square. Place this piece to cover the velcro hook on the wall. If one person holds it in place, the other can locate the absorber piece without having it stick to the hook. Give the absorber piece a good whack on the sides to push it snugly up against the already installed pieces. Then while one person holds the absorber so it doesn't shift, the other person slowly pulls the cardboard out, and the velcro catches.

**Another Good Hint:** When you get to the end of a row or column, and the piece has a tight fit, slip a piece of cardboard between the piece you are installing and the pieces already on the wall. The extra thickness is more that offset by the reduced friction, and allows you to really push the piece in all the way. Don't be afraid to push the pieces hard or even whack them with your fist, as long as you hit down in the valleys, and protect the tips.