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Light Cove Installation Suggestions for Recessed Domes

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WARNING! If you have any physical limitation or condition, consult your physician. We also strongly recommend that you always obtain assistance before lifting and setting domes and light coves into place. These are general ideas only, and should never supersede safety, common sense, or applicable laws and regulations. RWM Inc. assumes no liability for accidents or improper installations.

We're Here to Help! Every person processes information differently. If you have any questions or concerns, please call us at 1.855.RWM.ARTS (796.2787). We'll gladly connect you with an installer who can walk you through it, and give you any tips or pointers that might be helpful for your situation.

Before Installing Light Cove: First install your dome and drywall up to it. Your dome bottom edge should be FLUSH with your drywall. Then perfatape your ceiling. If you will be installing rope light, your electrician should leave a pigtail (Romex wire) and determine the position of the wire. He/she should drill 1/2" hole for that wire, approximately 1" from bottom of the dome, and feed the wire through the hole.

Tools Needed: Drill (electric or cordless), finish tip, 2-1/2" finish screws (square headed), a pencil, 120 Grit sand paper, construction adhesive, and wood shims (for multi-part light coves).

Additional Tools Needed for Multi-Piece Domes: Half-gallon mixing container, paint-type mixing stick, water bucket & tile sponge (for moistening parts and clean-up), squeeze clamps or small C-clamp style vise-grip, and a small plastic prep blade (credit card size piece of plastic).

1. Determine your light cove placement. Measure the inside edge of the dome and outside edge of the light cove. For oval domes, you'll need two sets of measurements: the inside length and width of the dome and outside length and width of the light cove.

Subtract the dome measurement(s) from the light cove measurement(s), and divide that number by 2. The result is how far the outside of your light cove should sit from the inside edge of the dome. Take a pencil and lightly draw that distance out from the inside edge of the dome. This is where the outside edge of your light cove should be placed.

<p>Round Example: 4' Dome (9" Rise)</p> <p>Step 1: Diameters $54\text{-}3/4''$ (outer light cove) $\text{- } 48''$ (inner dome) $= 6\text{-}3/4''$ (difference) $\div 2$ (for each half) $= 3\text{-}3/8''$ (the circle you would draw out from the inside edge of the dome)</p>	<p>Oval Example: 80"x46" (12-9/16" Rise)</p> <p>Step 1a: Lengths $87\text{-}3/8''$ (outer light cove peak length) $\text{- } 80\text{-}3/8''$ (inner dome peak length) $= 7''$ (difference) $\div 2$ (for each half) $= 3\text{-}1/2''$ (mark you would make from the inside edge of the dome's peak length)</p> <p>Step 1b: Widths $53\text{-}7/16''$ (outer light cove peak width) $\text{- } 46''$ (inner dome peak width) $= 7\text{-}7/16''$ (difference) $\div 2$ (for each half) $= 3\text{-}23/32''$ (mark you would make from the inside edge of the dome's peak width)</p>
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2. Holding the light cove up in place to your pencil line, put a couple reference marks on both sides of the light cove and drywall, so you can line them up in the same place when you are ready to secure it.

Next, mark where your framing meets your light cove so you can know where you want to put your screws. See diagram to the right (framing varies for larger domes — see your dome's spec sheets).

3. Set the light cove face/detail up on the ground. Drill 1/8" holes. For one-piece light coves, drill 8 points of anchoring. For two-piece light coves, drill five per half. For four-piece (or more) light coves, space your drill points approximately 12" to 16" apart. Countersink (using a 1/4" bit for finish screws) these holes so that your screws will be below the finished surface.

4. Turn the light cove over so it is face down and clean off any chips or dust from the drilled holes. Hold it up and align it to the circle and to the reference marks you made on the ceiling. We strongly recommend that you finish piloting (pre-drilling) through the dome flange and into your framing. (Reason: Sometimes, you'll be hitting the dome mounting flange on your way to your framing. Drill through that bottom flange so you do not damage it.)

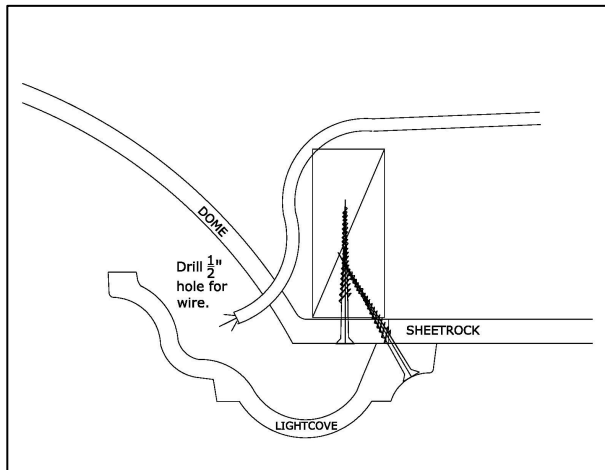
5. Take the light cove down one last time and apply a medium bead of construction adhesive (about 1/4" thick) on the outside mounting flange of the light cove (i.e. the part that will touch the ceiling). Then hold it up, aligning it again to the circle and reference marks you made on the ceiling. Secure it with 2-1/2" finish screws (square headed). Note that grabber screws will also work, but can be a bit more effort to patch.

Steps 6-11 apply to multi-piece light coves only.

6. If you have a multi-piece light cove, open your patch kit and ensure that you have the following contents: Container of gypsum cement in powder form, container of add mix (looks like milk), and a container of chopped fiberglass. If you appear to be missing something, call us at 1.855.RWM.ARTS (796.2787).

Now that the parts are secured, use a clamp to line up the inner edge (see picture to the right). Or shim out from the back of the light cove if necessary to hold in alignment while joint patch is applied. You are now ready to apply joint patch.

7. For each joint, put approximately one cup of add mix into a container and add the gypsum until it is about the consistency of yogurt (as shown below).



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8. Then add a pinch (as shown below) of fiberglass. Again, the consistency should be similar to yogurt.



9. Use a sponge to wet the joint between the two light coves on back side (as shown below) and apply a 1/8" to a 1/4" layer of glassy mixture to backside of the joint. Apply some of the mixture 2" to each side of the joint (for additional strength). Use the sponge to smooth your mixture out. Let the mixture harden and then remove the clamp and/or shims.



10. Once backing mud is dry, mix a small batch (1-2 ounces at a time) of gypsum cement powder with the add mix (DO NOT ADD FIBERGLASS TO THIS MIX!). Moisten the front (or face) of the joint and then fill the joint with this mud. Sand and repeat for 2-3 coats. (Note: You could also use quick-set drywall mud, or automotive Bondo if you prefer — used in pictures below.)



11. Our domes and light coves come with a paint grade finish (i.e. they are prepped for painting). For best results, lightly sand the entire surface after installation (to remove any hand oils, dirt, etc.), prime, and paint (water-based or oil-based primers and paints are fine).

