

<http://dmr-gutters.com>

Gutter Replacement Installation Instructions for DIY

(Written for the laymen/do-it-yourselfer)

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 It is best to read over all these instructions before ordering parts this project to evaluate if you feel that you can do this from start to finish. Walk around your house looking it over to carefully evaluate this project, get measurements, think about each step of this installation process, and make notes. Figure out where the old gutter parts will be stored before they are recycled. Also, decide where you will process the new parts before they are ready to install. Write down those measurements to fill in the form for the new gutter parts order. Longer gutter parts can be trimmed off to fit, but if the parts are too short that’s not so easy to fix, so make sure the new parts will be long enough when placing your order.

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| Removal Tools | Metal Gutter Removal Instructions |
| 5 gal bucket A large garbage bag Claw hammerCat’s paw nail removerTool belt w/pouchesA T head wrecking barLong tape measureTin snipsAn impact driver w/assortment of tipsWire brushScraperPaint brush**Installation Tools:**Ladders: I use a 4' step ladder, 8' extension/step ladder w/stabilizer, 32' extension ladder w/stabilizer & leg levelersA pair of padded sawhorses to work on the gutters up off the ground. The top covered w/outdoor carpet to avoid scratches, but cardboard taped on can workKnee padsA good pen or fine point markerPlumb-bobCordless **impact** driver and right fin snips to cut out to the 4 corners. Use t¼" magnetic**New** #3 Phillips tip, 4” to 5" extension. swivel joint to help with corner screws1" bi-metal hole saw1/8" drill bit for rivetsPliers3” offset seamer (optional)Hacksaw or chop saw to cut downspoutsRivet hand toolLeft and right offset tin snipsDownspout crimper.Caulk gunA good 2’ level | **Preparation:** Clean out the gutters using a bucket and empty the bucket into a trash bag as needed. This is so the gutters are empty and not so heavy, which would make a mess on the ground as you remove them. If your old gutters are not so rusted out that they will still hold water you should perform a water test to see where it leaves standing water in those clean gutters, so you can make notes of this to help give you an idea of how the new gutters will need to be positioned differently, so the rain water will drain efficiently. The drip edge flashing may also need replaced or custom formed to account for the correct this gutter leveling issues.**DSP Removal:** I recommend you take the downspout off first, so no more debris is washed down into your storm drains. Use a claw hammer and cats-paw to remove all the nails that hold the downspout pipes on the siding, unless they are attached with screws of course (rare).**Gutter Removal:** I use a T head wrecking bar to knock the 7” nail spikes loose and then pry them the rest of the way out with the claw end. If they fling out on the ground try to keep a mental note of where they landed, so you can gather them up as soon as you are on the ground again. Collect the spikes and ferrules in your tool-belt pouch. As you go down the line of the roof edge loosening the gutter use tin snips to cut the gutters in 8’ to 9’ segments by cutting the front and back wall of the gutter letting it gently swing straight down. Then you can cut the floor of the gutter while being ready to catch it before it drops. Set them aside where they will be stored until you are ably to recycle those old parts. You should clean the debris and spider nests that are behind the gutters and downspouts. Scrape any lumpy paint or caulk that may be in the way of the new install. Repair or replace any defective fascia boards or rafter tails. It is a good idea to add some deck screws to help support the fascia boards better than just those cheap nails, so they can handle the weight of the new gutters if they were to become clogged and full of water again. Snow loads and icicles can also weigh heavily on the new gutters, so you are preparing for the worst. Often I find the fascia boards and siding had not been painted behind the gutters and downspout, so if the weather permits and it is above 50 degrees this is a good time to prime and paint these areas to match before the new parts are installed. You may want to consider having DMR form aluminum fascia covers to match the gutters. It is easier and quicker than to scrape and paint, looks better, and will protect them better than a thin coat of paint. The diagonal rake edge boards can also be capped with the same metal covers to better protect them as well.**Disposal:** Condense these parts by stacking then into each other for transportation to the scrap yard. The downspout can be condensed by smashing them under foot and even folded in half. If they are ready for hauling while I am out there to deliver the new gutter parts I will haul them off for you and recycle them at no charge. Plastic gutter will cost extra for the dump fee, since they may not be recycled. They will need to be cut in 3’ segments to fit in a trash can. Some recyclers might take PVC plastic. |
| **Gutter Preparation Instructions****Measurements:** After the old gutters are removed get the exact measurements of the roof, fascia boards, or each rafter tail position and write it on the chart to replace the loose measurements you may have gotten. Where there are just end-caps add ½” to the measurement of the roofing shingles on each end for the thickness of the end cap piece. For corner configurations measure the fascia boards and add a little gap to allow for expansion and contraction. They need to not be too tight of a fit. Carefully measure the outlet locations for the downspout placements. Use the plumb-bob to get a straight DSPplacement, since just eye-balling it is not likely going to be accurate. A dangling tape measure can work, but is less accurate.**Gutter Supports:** Set out the new gutters on a pair of padded sawhorses and trim to the exact length. Place the **H**idden **H**anger in the gutters every 2 feet apart or to line up with each rafter tail. Pull the back of the **HH** up into the safety hem (if the gutter has it). While pulling the **HH** up tight pre-drill the screw holes with a small 1/8” drill bit. Start a pair of **S**tainless **S**teel screws into the back of the **HH** outer holes. Use the 1” to 1½" **SS** screws for fascia board attachment, or 2” to 2.5" screws for rafter tail attachment.**End-caps:** Position the end-caps on the ends of the gutters where needed. While holding it in place seal with caulk along the inside seam. Press the caulk deep in the joint with your finger. Squeeze the outside end-cap flanges closed tight with pliers or a 3” seamer (if you have that tool). Drill rivets holes through the 3 layers of metal of the outside flange. At least 2 on each of the 3 faces: 6 total. Use the touch-up spray paint inside the gutter over the caulk to use as a solvent in order to smoothen the caulk with your finger yet again. Then spraying one last time to shade the caulk from the Sunlight and sealed from oxygen exposure. |
| **Outlets:** If you can, flip the gutter upside down and place the elbow on the bottom of the gutter pointed in the right direction. Trace the outside of the elbow touching the floor of the gutter. Cut a hole in the center of the outline mark with the 1" hole-saw. Use the left and right tin snips to cut from the hole out to the 4 corners of your marks. Use the pliers to pry the metal up at a right angle. Caulk the inside rim of the elbow near the edge. Then position it on the bottom of the gutter where you made the outlet. Rivet through the side of the elbow and the flanges you made of the bottom of the gutter you bent. Flip the gutter back over right side up and crimp the backside wall of the gutter with the **DS** crimper on each side of the outlet to give the gutter a dip at the outlet.**Installation Instructions****Attaching the Gutters:** Set the ladder in the middle position of where the gutter goes. Rest the ladder stabilizers on the roofing just above where the gutter goes in place. Leave enough space for the gutter under it. Holding the gutter where it is balance in the middle lift the gutter up into position as best you can. The gutter will be bowing a bit, but as long as it is not more than 50’ long, it should be fine to install with just 1 person. Drive the center screws in with the cordless impact driver. If the screw spins instead of pulling the gutter tight against the wood and cinches down; you may have cracked the wood, striped out the hole, or there is too much dry rot. You will need to change the angle of the screw, reposition the hidden hanger, or use a longer set of screws to dig deeper to find some good solid wood for a secure attachment. |
| **Sideways Alignment:** Check the ends of the gutter to see that the sideways position is correct, having the end of the gutter pulled up to meet the roof and set ½” past the edge of the roofing shingles or lined up with the end of the fascia board where there is a corner. Measure the correction needed, and go back to the center to reposition that center screw. Make a mark on the drip-edge of where you need the screws repositioned over sideways to the right spot. Run the screw out and slide the gutter into the corrected position and run the screws back in.**Leveling:** Setting the gutters with a slight slope towards the outlet (if possible) will help to avoid standing water when some debris begins to accumulate. Go to the end away from the outlet. Lift the gutter up into position as high as it can be without pushing up on the roof shingles and drive the end screws in. Set the level tool in the bottom of the gutter against the back wall of the gutter to get a good reading. Keep in mind that any grit under the level can give you a false reading, so make sure the floor of the gutter and the bottom of the level is clean. Be careful to adjust gutter height with the bubble in the level touching the line away from the direction you need the water to flow, as opposed to dead center. This gives the gutter a slight slope towards the outlet, but not too drastic. Work your way towards the center driving the screws in while checking the level as you go and reposition the center screw again as needed. You may need to temporarily drive a screw in on the outlet end to loosen the center screw for height adjustment required. Finish driving all the screws in checking with the level to make sure it has the right grade downwards towards the outlet.**Corner Pieces:** Caulk and rivet any corners you may have. Use 4 to 5 rivets across the bottom, 3 to 4 in the face, 1 on the top of the outer lip, and 2 to 3 stainless steel screws w/washers in each inside seam. Caulk again over inside seams and the rivets inside the gutter. Smoothen the caulk with the touch-up spray paint and your finger, like you did for the end-caps.**Downspout Installation:** Install the **L**eaf-**C**atcher first with the screen to be positioned 3’ above the standing surface (see **LC** instruction sheet). Then hold the other **DS** elbow up in position to get the measurements between those elbows and down into the **LC** to overlap the top edge of the **LC** 1.5” to 2”. Cut the **DS** pipe to length and assemble with 2 rivets for the sides of each connection. Rivet the pipe cleats on the back of the **DS** pipe not more than 6’ apart. Use the wider head **SS** screws to install the downspouts on the house. Do not rivet the upper **DS** assembly onto the **LC** or the upper elbow under the gutter. That will be the connections that are left loose to be able to remove the **DS** off the siding if needed. **Roof Flashing:** Be sure there is a healthy overhang to the roofing shingles and drip-edge flashing of ½” to 1” overhanging the roof edge, Any more than that would leave little room to fit your hand in the gutter for cleaning. The drip-edge flashing should always be installed so the bend lines up with the outer edge of the shingles. Not tight to the fascia boards. I can form custom drip edge flashing to account for the better grading of the gutters. I can also make them with a safety hem bent back up underneath to avoid any sharp edges of sheet metal when cleaning out the gutters.**Screen Installation:** These screens I recommend are easy to put in place. You just need to slide them up under the edge of your shingles and pulled it back down to the outer rim of the gutter to lock into place. I use a small screw driver to stick through the holes of the screen to pull it back down into place. They are notched at one end to show the recommended overlap.Corners: There are no corner pieces to order for these screens. I just trim them at a 45 degree angle in the corners as needed. Or you can just run one side out to the end of the gutter and bend the side over to fit, and continue on the other side. You could even leave the outside corners open, since there is no debris there to slide off the roof at those points. This would also help to access these corners with commonly trap debris.Under Each Valley: As for inside corners; there is no type of screen that can be used that will not be covered over with debris before long, causing that river of water to pour out past the gutters, so I have found any inside corner has to be left open, uncovered. Some of this screen can be used up on the roof to trap that debris up in the valley to keep it from clogging up the gutter, but you then need to make sure those valleys get cleared out regularly, or they could back up water under the shingles and cause water damage. This is just part of the unavoidable maintenance of any house with a valley, which is a design flaw many houses have. It also helps to bend the edge of the valley metal down into the gutter to help wick that water down inside the gutter, so it does not shoot out over the outer rim of the gutter. A soft curve is better than a sharper bend, but that may not be easy to do. You may need to make a pair of cut beside the rise in the center to allow that metal to be bent downwards. Best luck. Any questions can be directed to David Rich of DMR Gutters though the web site or (503) 351-7082 if it is a rush. Some consultation fees may apply. |