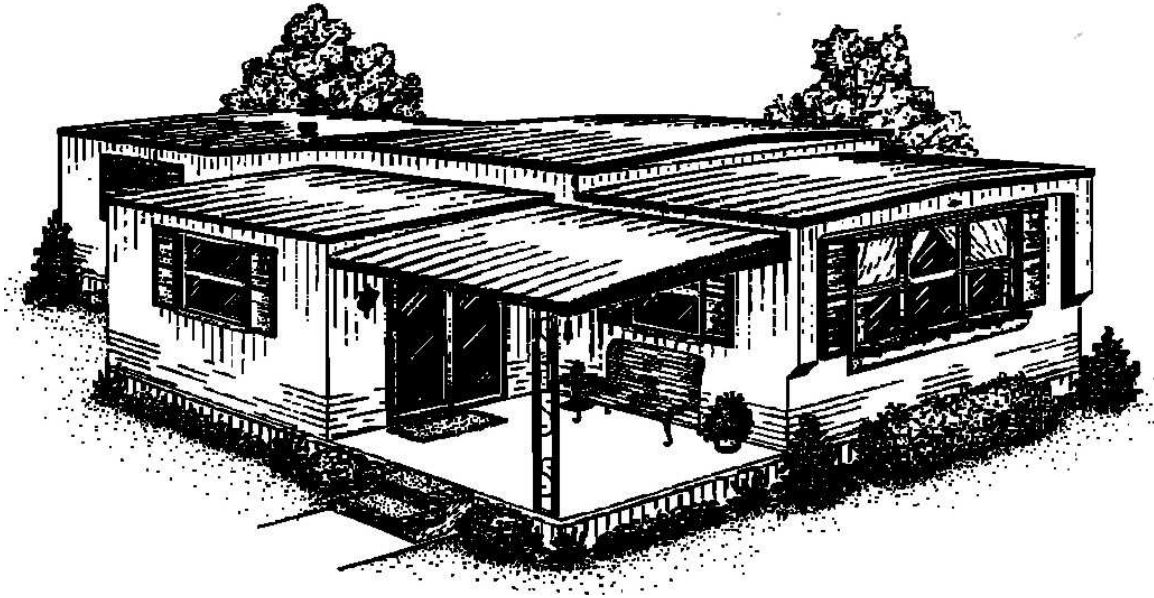


NewRoof®



INSTALLATION INSTRUCTIONS

New Roof is a product designed to enhance an existing manufactured home's roof. It is not a structural change and derives its structural integrity from the strength of the existing home's roof. If there is a structural problem on the existing roof, it should be resolved prior to the installation of New Roof. New Roof is designed to carry water off of the existing roof using gravity while creating an overhang on the side of the home. If there is some obstruction which will prohibit the flow of water off the existing roof, the existing roof's structure must be altered to provide positive water flow prior to the installation of New Roof. Read Urban's Installation Instructions thoroughly and resolve any questions before beginning assembly.



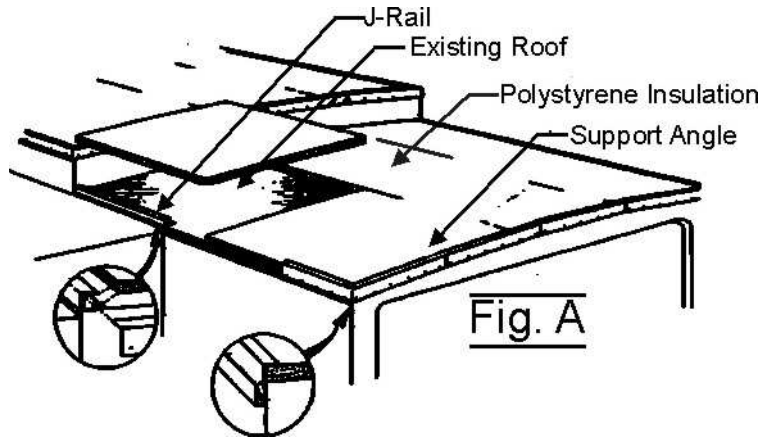
Quality Manufacturing Since 1947
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Vents & Flues:

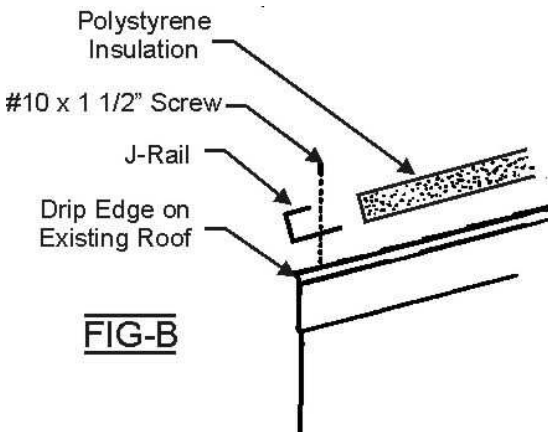
Inspect the roof and all of the pipes, vents, flues and openings on the existing roof. With the exception of wood burning stoves and fire places, all the vents, pipes and flues should be temporarily removed from the roof and their function determined. Soil pipes should be extended 9" to 12" above the existing roof line. They will pass through the New Roof and be sealed to it using Peel and Seal, which is described in a later step. Passive condensation vents, openings in a roof that don't go anywhere, except through the original roof, should be sealed shut and made water tight. The remaining vent and flues should be examined to see if they will require extensions since they will be reinstalled on top of the New Roof approximately 3-1/2" above their original location. Their reinstallation will be covered in a later step.

Support Angle & Insulation:

Beginning at one end of the home, place the sheets of polystyrene insulation on top of the roof of the home even with the end and one side of the home. Place a section of support angle over the polystyrene with its 2" flange on top of the polystyrene and its 4" section over the side of the polystyrene and the home. This will allow about 2" of the



support angle to extend below the polystyrene along the side of the home at the top (See Fig. A). This is usually where the drip rail on the home is located. If the drip rail interferes with the support angle, cut the drip rail off or bend it flat against the home so that it will not interfere with the support angle. Do not unscrew the drip rail because that is what holds the original roof in place. Secure the support angle to the side of the home using #10 x 1-1/2" screws every 6"



section intact. Bend the support angle to match the desired change. The 2" portion remains uncut providing continuity to the piece being installed. When there is a significant upward change, it may be desirable to cut the support angle and place a mitered section along side the other section for appearance sake. Corners can be made by cutting the 2" section of the support angle and then bending the 4" section around the corner.

Continue to install the insulation and the support angle over the entire roof. When a soil pipe or other remaining vent or flue is encountered, cut the polystyrene to allow the opening to remain for the vent or flue. Around wood burning stove pipes and chimneys, keep the polystyrene at least 1" away. Even though polystyrene is modified to be non-combustible, it can still melt if it gets too hot.

When there is more than one independent roof level, (i.e.-the original roof stopped on one level and began again on a different level without a connection) treat each roof level as a separate roof.

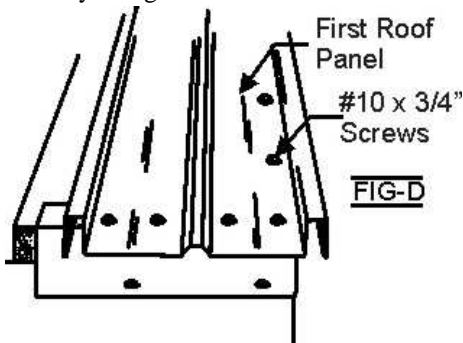
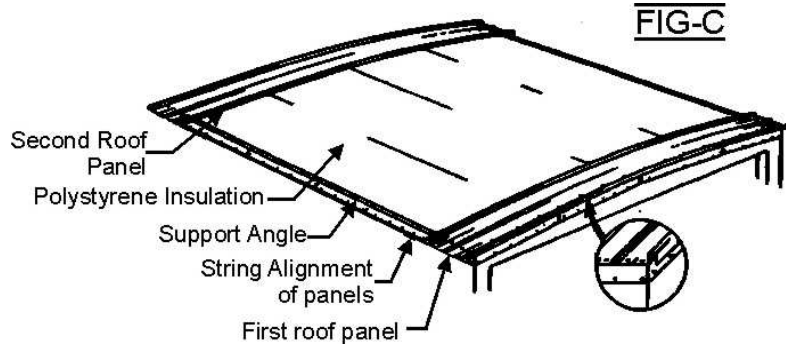
Support angle is available as a "J" rail to provide support and attachment where there is no access to the side of the home on which to attach the support angle. This may happen when there is a patio cover attached on the side of a home at the top or when an addition may interfere. The "J" angle will allow the polystyrene to be held in position after the "J" rail has been secured to the top of the original roof. Another application of the "J" support rail is when a shingled roof is to be covered. Since the shingled roofs normally have a drip edge that allows the shingles to extend beyond the side of the home, it is easier to use the "J" rail at the edge of the roof rather than attempting to cut back the shingles to allow the standard support angle to attach to the side of the home (See Fig B). Pitched roofs use this as well, but that is covered later.

Roof Panels:

Before beginning the installation of the roof panels, please read the section about contour changes, flashings special considerations. After reading, then proceed.

Beginning at one end of the home, position the first roof panel so that the panel equally overhangs both sides with the larger overlapping rib extending beyond the support angle across the end of the home. Secure the first roof panel to the support angle on each side of the home using four #10 x 1/2" screw spaced every 6" to prevent the wind from lifting the end roof panel.

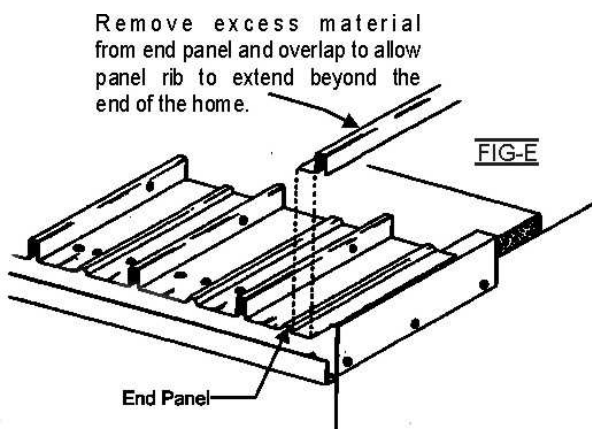
The second roof panel should be temporarily secured at the opposite end of the same roof level with two screws on each side through the panel into the support angle. Align this panel with equal overhang on each side of the home. Attach a string under one of the screws and run it around the rib of the first panel and attach it to a screw. Pull the string tight and you now have a reference for aligning the remaining panels on the home (See Fig C). The advantage to the string line is that it does not rely on the side of the home for reference but to the two ends of the home. If the sides of the home are used for overhang alignment, they may not look acceptable after installation because the sides of the home are rarely straight.



Return to the first panel and install the remaining panels by overlapping their ribs and aligning the overhang to the reference string. Secure each panel to the support angle with four #10 x 3/4" screws on each side of the home. Where the panels' ribs overlap, secure the ribs together every 2' on the outside of the length of the panels. This will prevent the wind from pulling the panels apart in the center of the roof area (See Fig. D). As vent and flue areas are encountered during installation of the roof, cut the panels to allow the vents/flues to pass through the roof panel. When cutting the openings for soil pipes, cut the openings as close as possible to the actual size of the pipe. A hole saw is ideal.

End Panels:

The roof panels are 12 3/4" wide, however, the overlapping rib takes up 3/4". The normal coverage of a panel is 12" and if not held in place, they will "creep" to 12 1/8" during installation. They can be stretched to cover slightly more space if they are pulled during installation. Knowing this may make installation easier. If the last panel ends with the rib extending beyond the support angle, there will be no need to adjust the last panel to the roof length. **NOTE: OFTEN, THE ENDS OF A HOME ARE NOT SQUARE.**



When approaching the far end of the roof with panels, it will be necessary to remove the reference string and the panel holding it so that the panel installation may continue uninterrupted. Often, the last panel will overhang several inches beyond the end of the home. To make the last panel end at the end of the home with the outside rib of the end panel extending beyond the home, place the last panel in place overlapping the preceding panel. From the underside, mark where the panel extends beyond the end of the home. Remove the panel and cut off the excess paneling. From the excess paneling, remove the outside rib with enough panel to allow the rib to be reattached on top of the panel from which it was removed. Align the outside rib section so that it is square

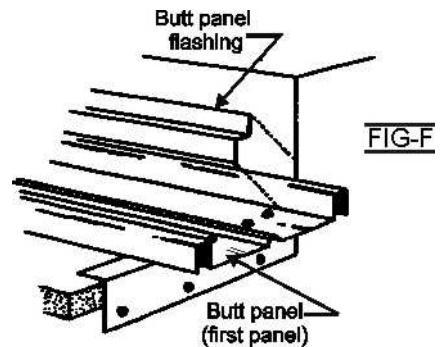
with the end of the home with only the rib extending beyond the home. Secure the last panel and the outside rib section with #10 x 3/4" screws as was done with the first panel (See Fig. E).

Contour Changes:

If a roof has a contour change, the roof panels can be made to follow that change. The direction of the overlapping ribs controls the water integrity of the system. The open side of the rib will allow water to enter the roof system while the closed side seals against water entry. It is possible to force an overlapping rib over the same size rib to reverse the direction of the panel overlapping rib system. Whenever the rib system will cause an open rib to hold water due to a contour change, this procedure should be used to keep the water from entering the roof system. Reversing the system can be done as often as desired.

Butt Flashing:

When there is a definite separation of roof levels and the roofing does not continue from one level to the other, it is necessary to treat each roof level as a separate roof. When a roof level begins against a wall that supports a higher roof level, it is necessary to seal the first roof panel to the wall. A butt flashing will accommodate this. When beginning a lower roof line, place the first panel snugly against the wall and secure it to the support angle on both sides of the home as with the normal roof. The larger rib should be against the wall. The butt flashing is a piece of metal flashing broken into a "Z" shape to accommodate the panel rib. The butt flashing will be cut on the two vertical planes to allow the flashing to conform to the shape of the panel. The vertical planes will rest against the wall and the inside leg of the panel. This should be sealed with caulk and secured to the wall and the panel. It may be necessary to use more than one section of butt flashing to create the necessary length since the butt flashing is made in 10' long sections (See Fig. F).

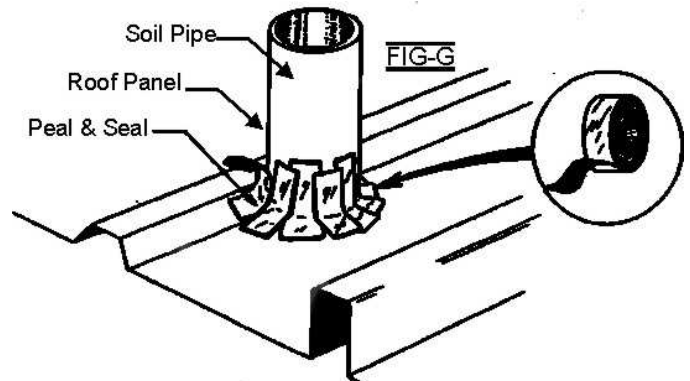


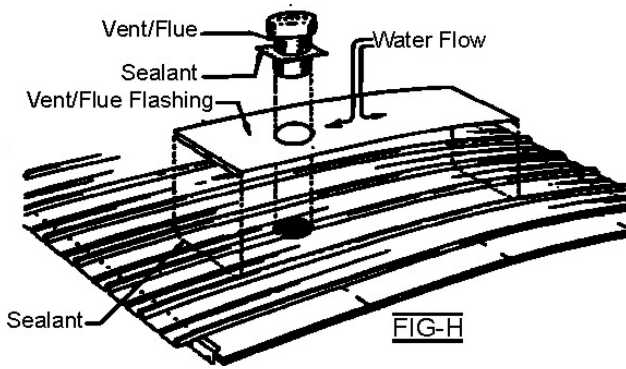
Special Considerations

Should a home have an addition, garage, or anything attached to it that is higher than or equal to the height of the home where the water was intended to flow off the home, it will be necessary to redirect the water flow to insure the integrity of the New Roof. If the water is directed to a valley between the buildings and they are attached, it is likely that they will leak sooner or later because they move or shift. The best solution is to redirect the water to an area that will allow it to exit the roof without the possibility of leaking into the home or addition. If a valley exists, look for a way to eliminate the valley. If the side butts against a higher wall, see if it is possible to elevate that side sufficiently to cause the water to flow to the opposite side of the home. It will be necessary to support the roof panels but it is important that the water flow be directed away from the valley area for it will eventually leak.

Soil Pipes

Soil pipes should have been extended to stand about 6" above the roof panels after the panels have been cut to allow the soil pipes to pass through them. The extensions should be made using conventional ABS or PVC joints and welds. The holes in the panels should be made as close as possible to the size of the pipe passing through them. A hole saw is recommended. After the hole is made and the panel is secured in place, apply small strips of Peel & Seal from the panel surface onto the soil pipe until the entire opening is sealed. If the temperature is below 60 degrees or the Peel & Seal does not seem to be tacky, heat it up until it is tacky with any form of heat (See Fig G).





Vent/Flue Flashing:

A vent/flue flashing is a 25" by 6' or longer flashing which begins on one side of the roof and ends on the other spanning two roof panels above the ribs providing a flat surface on which to reinstall vents and flues. The length of the vent/flue flashing always covers the center of the roof beginning on one side of the center and ending on the other so that water may flow off the flashing in both directions without obstructing the flow of water. This will allow all of the vents and flues to be reinstalled above the New Roof for easy

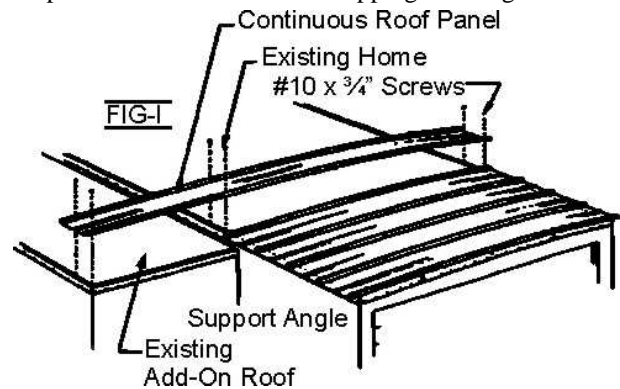
access (See Fig. H).

Place the vent/flue flashing onto the roof so that it covers the desired opening. The length of the vent/flue flashing should extend from below the desired opening to beyond the center of the home as described above. Place the vent or flue, which was removed from the roof onto the vent/flue flashing and trace the desired opening onto the vent/flue flashing. Cut the opening in the vent/flue flashing. Place a quality sealant on the top of the ribs to be covered by the vent and install the vent/flue flashing in place using #10 x 3/4" screws every 6" on the top of the ribs. Seal the ends of the vent/flue flashing against the flat of the roof with a quality sealant to prevent a driving rain from entering the flashing. The original or a replacement vent or flue may now be installed just as it was on the original roof using conventional sealants and hardware.

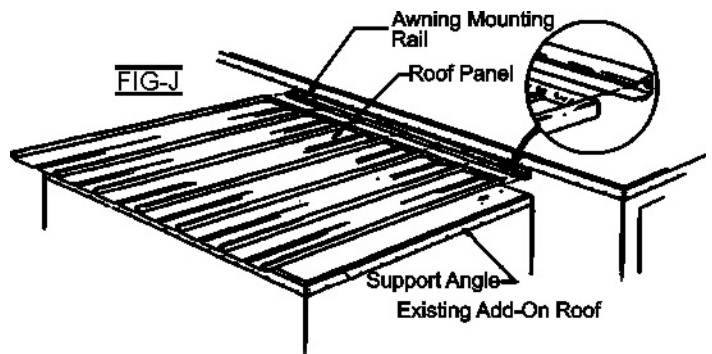
Tip Outs & Expandos:

Tip outs, expandos, roll outs, add on rooms all require careful attention to basic water flow. Common sense must be exercised. The weakest part in most additions is the joint between the room and the home. If frost has moved the room, it is possible that the roof no longer has positive water flow and is trapping water against the home. This is typical of roll outs and push outs, which have limited fall at best. Another consideration is the height of the addition with reference to the roof of the home. Normally, the home's roof will be higher than the addition and the instructions following will apply. Should the roof of the addition be higher or equal to the home's roof, reread the **Special Consideration** section.

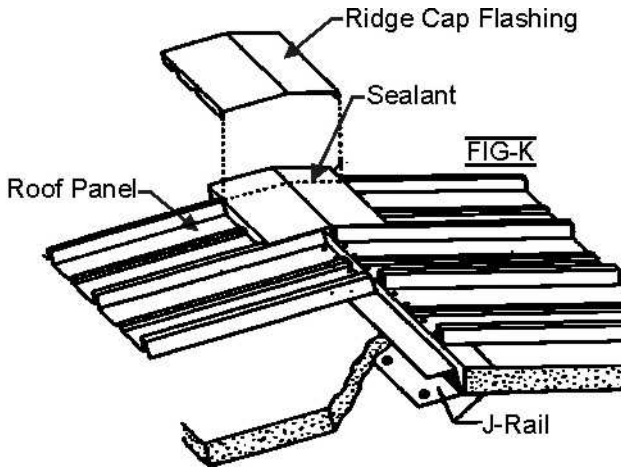
One way to cover an addition is to cover the home and the addition with one long panel. If this method is used, it is advisable to secure the roof panel at both sides of the home as well as at the end of the addition. This will prevent the panel from rising due to the span involved (See Fig. I). Attention must be given to the panel's shape for it will have a slight arch of about 3" to 3 1/2" along its length. For the single panel method to work, it is necessary that the arch be maintained without bending or kinking the panel. The panel must be supported from the underside since the panel is not structural in concept.



Another way is to create a patio cover style slope using flat roof panels and a patio cover mounting rail at the home. This method will allow the creation of pitch if that is lacking on the original structure. There must be a positive pitch at all times and the roof panels must be supported. The roof panels are not intended to be used as structural panels. This method is easy but attention should be given to the attachment area. Roof panels may be ordered with the attaching end folded into a box shape. This is designed to



prevent water from flowing up the panel and into the mounting rail at the home. This is called a “boxed end panel”. Flashing above the mounting rail will help insure the water integrity of the seal (See Fig J).



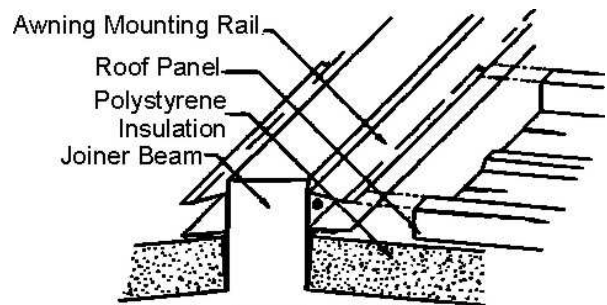
Gabled Roof:

Gabled roofs are covered using flat panels on each side of the roof secured to support angle at the edge of the home and on each side of the peak of the roof. The center is covered by a ridge cap, a 16” long flashing which profiles the contour of the panels on each side of the roof. “J” support angle must be installed down each side of the peak of the roof. Insulation is installed into the support angle and the flat panels are installed on each side of the roof as in the normal installation already described. The ridge cap is secured on both sides to the panels it covers with the #10 x 1/2” screws and the edges should be sealed with quality sealant to insure against water being driven by the wind. The ridge cap is 16” long to allow it to overlap the proceeding or succeeding

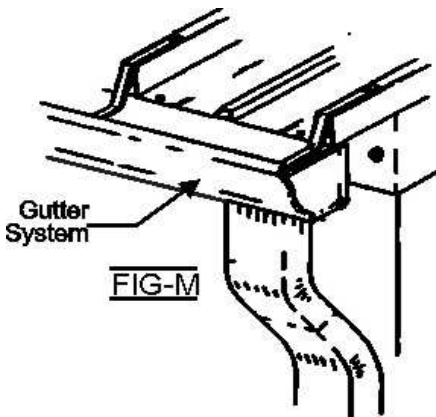
ridge cap 4”. The overlap should be sealed to prevent the possibility of water entry (See Fig. K).

Double Wide Homes:

Since double wide homes have been manufactured in a wide variety of roof configurations, it is impossible to have a set method of installation. Double wide home roof styles may include: pitched, arched, sectional, multiple levels and many other variations. Use common sense and determine how to

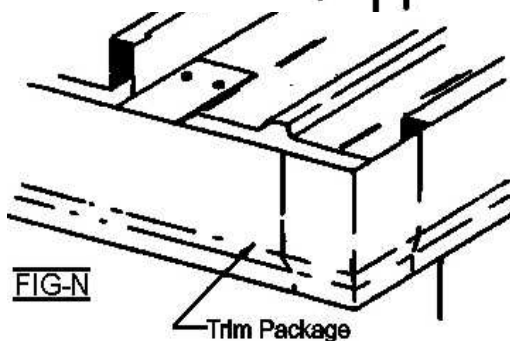


insure adequate fall without damming water. If there is a visible joiner on the home it may be used to mount two patio cover style roofs. Insulation may be used to build up the area and allow the roof to go over the joiner or any number of other alternatives (See Fig. L). “J” support may be used as needed. If the roof is pitched, consult the pitched roof instructions.



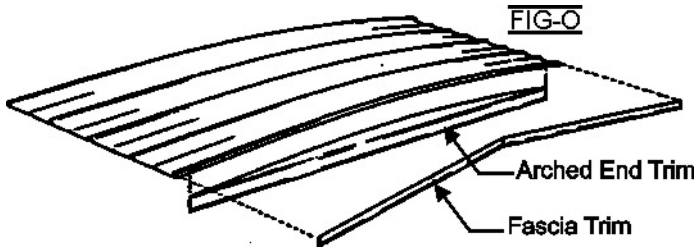
Side Options:

The ends of the roof panels on the sides of the home may be covered with modified aluminum 5” “K” style gutter used on conventional homes or with a special 6” aluminum fascia. Both systems will hide the ends of the panels and provide a finished look to the system.



The gutter will attach at the end of the panels away from the sides of the home. The gutter comes in 10’ long sections and will normally have a downspout at all four corner of the home. Since the gutter attaches to the ends of the panels it has limited fall causing some standing water in the gutters (See Fig. M).

Fascia comes in 12’ long sections and is attached to the ends of the panels by a series of spacers that hold the fascia about 2” away from the panel ends to allow water and leaves to easily fall off of the roof (See Fig. N).

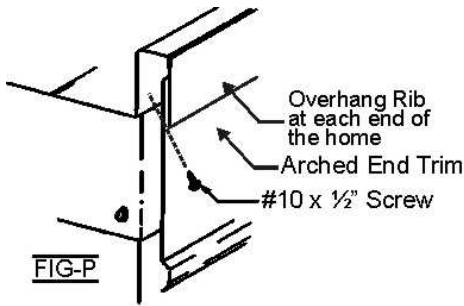


should be tied into the fascia trim or gutter at the side of the home to give a completed look to the home.

End Options:

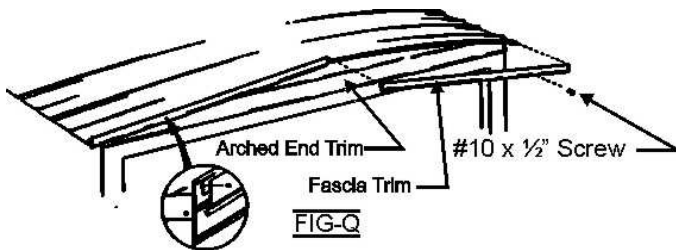
It is suggested that all ends of the home be covered with an arched end trim or vertical soffit style trim. This will finish off the ends of the home and will cover the support angle on the ends of the home (See Fig. O).

Additionally, fascia trim may be installed to create a pitch look at the end of the home. This



Arched End Trim:

Arched end trims are made as long as the roof panels. This will allow the end trims to be cut to the exact width of the end to be covered. Cut each end to fit a particular end of the home for ends do differ. Insert the arched end trim up into the overhanging panel rib on the end of the home. If the arch does not fit properly, cut the end trim top to fit the rib. Secure the end trim to the home using #10 x 1/2" hex head screws across the bottom of the end trim and up under the lip of the overhanging rib. It is recommended that every roof receive end trims to finish off the end of the home and hide the support angle on the end of the home (See Fig. P).



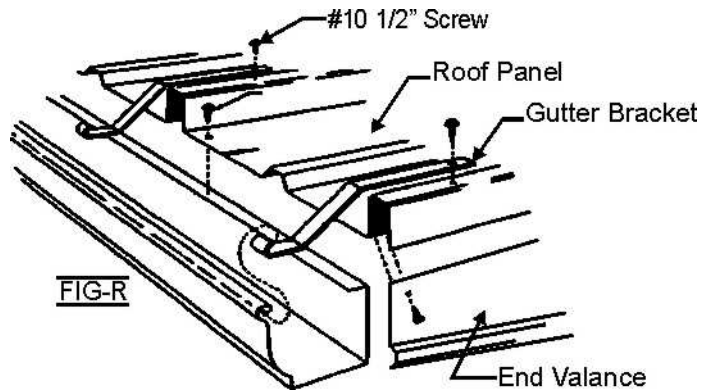
two fascia come together they should be mitered and then attached to the end of the home over the outside rib and the arched end trim using the painted #10 x 1/2" hex head screws (See Fig. Q).

End Fascia Trim:

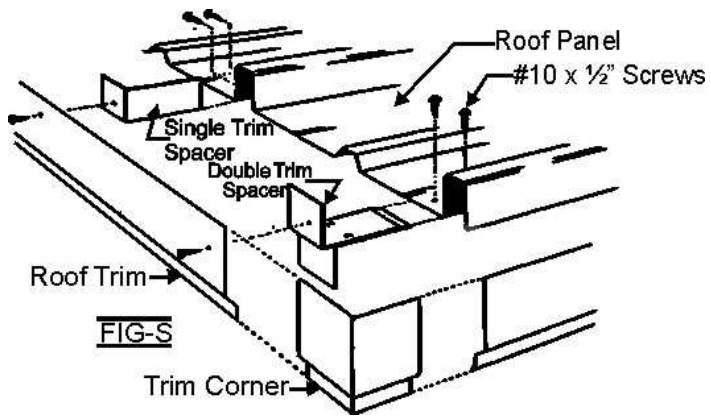
To make the home appear to have a pitched roof line, fascia trim may be installed across the end of the home. Two pieces of fascia trim are secured across the end of the home beginning at the end of the gutter or fascia trim on the sides of the roof meeting at the center of the end of the home. By adjusting the fascia trim upward a pitched roof line is created. Where the

Gutter:

Secure the gutter to the end of the roof panels with #10 x 1/2" hex head screws every 6". Attach the gutter strap to the gutter and secure it to the top of the overlapped ribs with #10 x 1/2" hex head screws. By pulling the gutter strap back further on the rib of the panel than the proceeding strap it is possible to create limited water flow in the gutters. If this is attempted, the water should be directed towards the downspouts. Downspouts may be installed anywhere in the gutter sections. It is recommended that the joiner have sealant applied prior to inserting the gutter into the joint. (See Fig. R)



Should a leak develop after installation, Peel and Seal may be applied inside the gutter. This is the same material that is used to seal the soil pipes to the roof.



Fascia Trim:

The double trim spacers provide a clip on fit at the outside edge of the roof panel to support the fascia trim. Double trim spacers should be located every two feet beginning and ending with a double trim spacer against the end rib of the first and last roof panels. Attach the double trim spacers to the panels using two #10 x 1/2" hex head screws. Install the fascia trim to the double trim spacers beginning at one end of the roof. Secure it to the double trim spacers using #10 x 1/2" hex head screws. Overlap the fascia trim on one of

the double trim spacers. When overlapping the fascia trim, remove the upper and lower folds on the back of the fascia trim for a good joint. Install the single trim spacers every 4' on the length of the home so that the longer flat section may be secured against the upright of a panel rib and the shorter flat section can be secured to the back of the fascia trim. Trim corners are provided for continuing the fascia trim on the ends of the home. These will be installed when the fascia trim is added to the ends of the home and will assist in aligning the end fascia to the side fascia trim (See Fig. S).