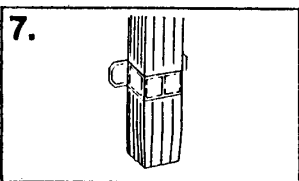
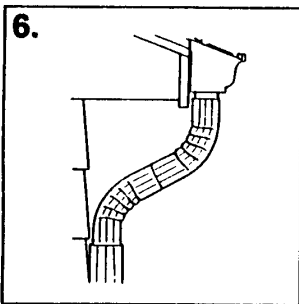
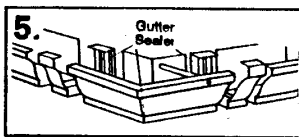
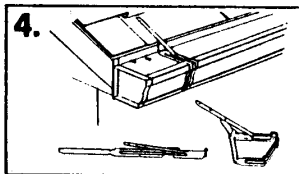
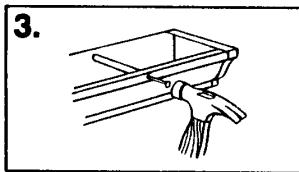
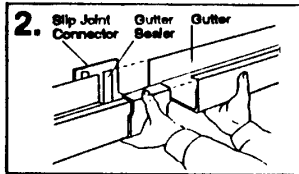
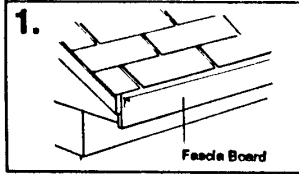


TYPICAL ROOF DRAINAGE SYSTEMS — EASY INSTALLATION INSTRUCTIONS —



TOOLS NEEDED:

Hammer, Screwdriver, Tape Measure, String, Pliers, Hacksaw, Tin Snips, Ladder.

1. STRING MARK THE GUTTER SLOPE:

Gutter should slope down 1" for every forty feet towards the downspout. At the higher end, tack a string to the opposite end (the downspout end), and tack it level. Then measure down the desired drop and re-tack.

2. GUTTER ASSEMBLY:

Begin at the end of the gutter opposite the downspout. First fit the end cap on the gutter securing it with pop rivets or sheet metal screws. Then seal it with gutter sealer. To join together two gutter sections, use a slip connector. Generously apply gutter sealer to one side of the slip joint connector — insert the gutter end into the connector. Apply gutter sealer to the other side of the connector — insert the second gutter end, pressing firmly to complete the connection. Bend front of slip joint over gutter connection and crimp.

3. HANGING THE GUTTER (SPIKE & FERRULE METHOD):

The SPIKE & FERRULE method is always the preferred method. To start, position the gutter with the top edge lined up against the guide string. Place a ferrule inside the gutter and drive a spike through the front gutter lip, the ferrule, and the back edge of the gutter into the fascia board, where the fascia and a rafter meet. A spike and ferrule should be used at every other rafter support.

4. HANGING THE GUTTER (WRAPAROUND GUTTER HANGER METHOD):

Use a wraparound gutter hanger only when there is no wooden fascia board. While the gutter is still on the ground, attach hangers every 2 to 3 feet. Align the gutter with the guide string and nail the hangers to the roof boards under the shingles.

5. ATTACH MITERS:

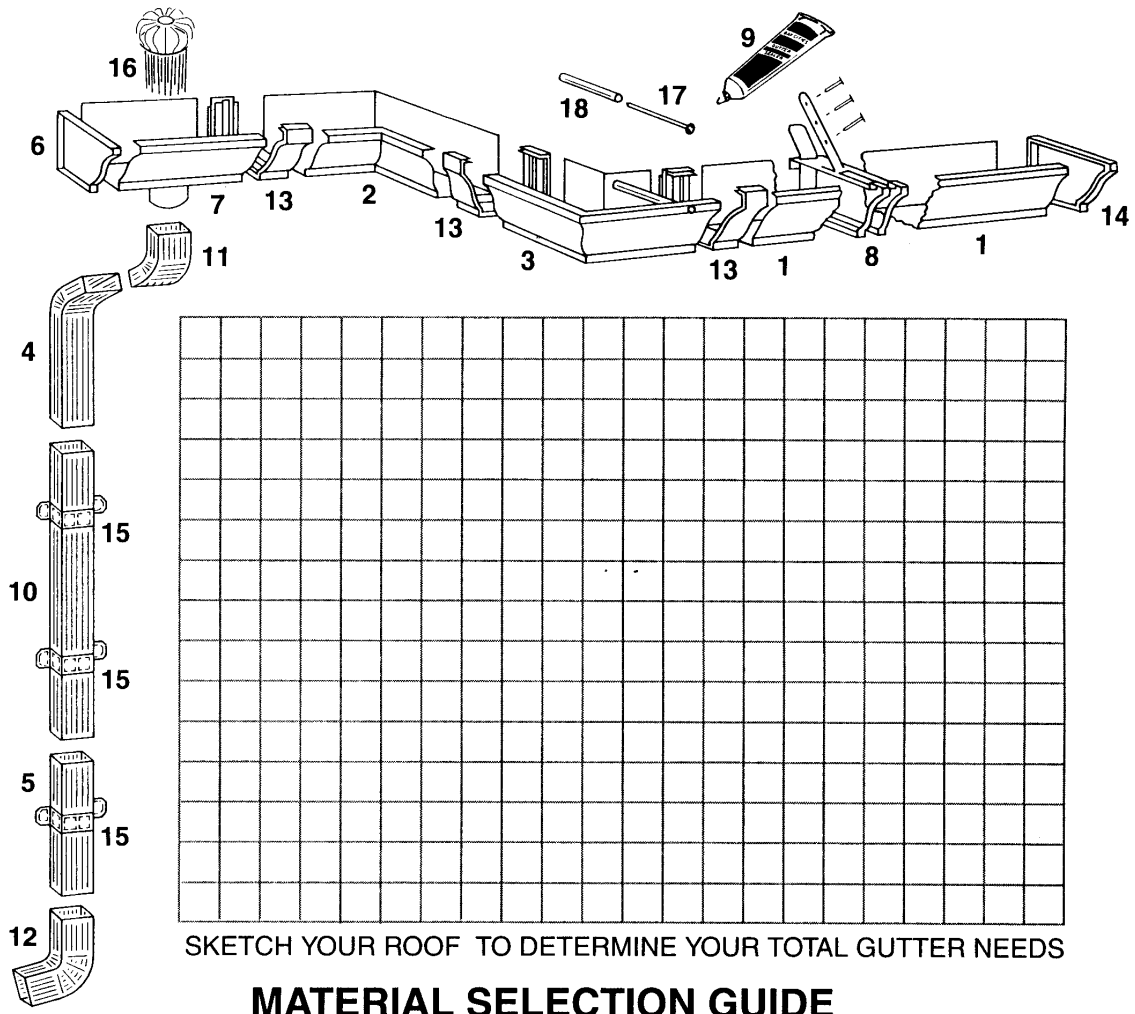
Attach miters to the gutter run where necessary. Use a slip connector between gutter section and miter. Apply gutter sealer after connection is completed.

6. ATTACH DOWNSPOUT ELBOWS:

Each downspout section and elbow has one crimped end. Parts are joined by forcing the larger end of one over the smaller end of the other and forcing them together tightly. Downspouts should fit snugly against the wall. Attach an "A" or a "B" elbow at the bottom of the downspout to direct the water away from the foundation.

7. ATTACH THE DOWNSPOUT:

Fasten each downspout against the wall using 2 downspout straps. Attach straps using the appropriate fastener (nails, screws, etc.)



MATERIAL SELECTION GUIDE

ITEM	QTY.	ITEM	QTY.
1. GUTTER		10. DOWNSPOUT	
2. INSIDE MITER		11. A ELBOWS	
3. OUTSIDE MITER		12. B ELBOWS	
4. LONG STEM ELBOW		13. SLIP CONNECTOR	
5. DOWNSPOUT EXTENSION		14. RIGHT HAND END CAP	
6. LEFT HAND END CAP		15. DOWNSPOUT STRAP	
7. END PIECE WITH OUTLET		16. STRAINER	
8. GUTTER HANGERS		17. SPIKES	
9. GUTTER SEALER		18. FERRULES	

WARNING: We recommend the use of gloves when handling sheet metal products to avoid cuts.