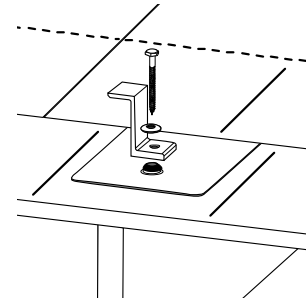


Installing Green-Fasten on a Composition Shingle Roof

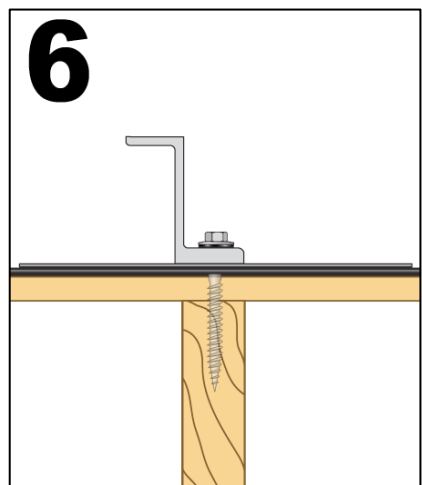
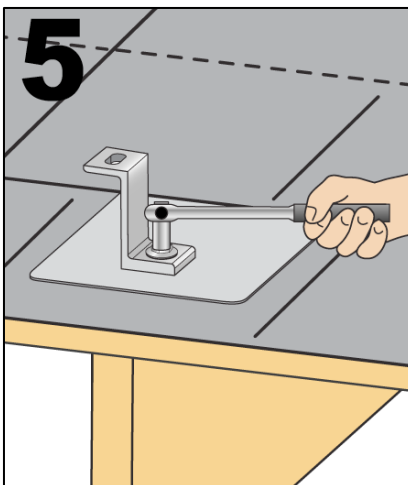
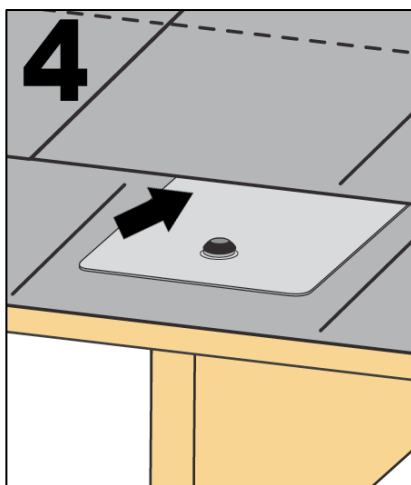
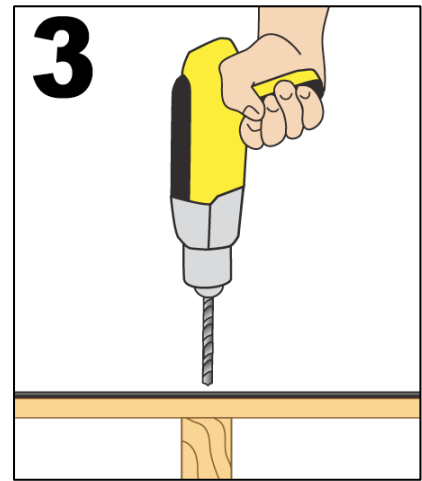
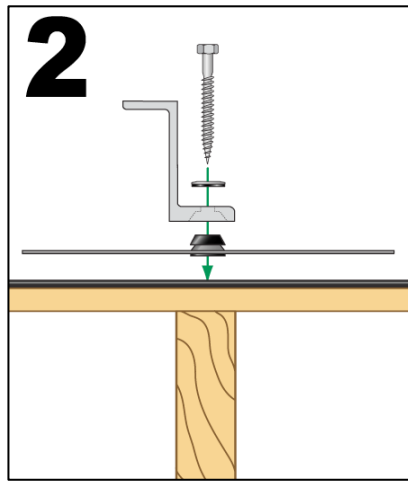
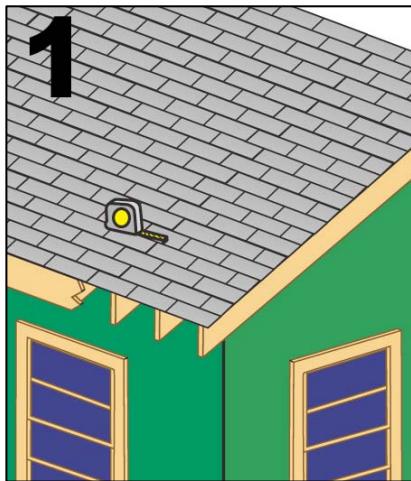
No need to remove any shingles if you can locate the rafters.

Tools Required:

- Drill, socket drive for lag bolt, tape measure, stud finder, chalk line, etc.
1. Locate the rafters and snap horizontal and vertical lines to mark the installation position for each Green-Fasten. Note: vertical location is for illustration only, generally items are not installed at the eave.
 2. Center the Green-Fasten over the rafter.
 3. Drill a pilot hole for the lag bolt.
 4. Insert the flashing so the top part is under the next row of shingles and the hole lines up with the pilot hole.
 5. Insert the lag bolt through the neoprene-bonded washer, the top compression component (Z-Bracket pictured) and the Gasketed hole in the flashing and into the rafter. The lag bolt should be tightened to approximately 97 inch pounds to ensure a watertight seal.



Consult an engineer or go to www.eco-fasten.com for engineering data.



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