Use the following photos as guides to identify the rafter leg pipe diameter of your ClearSpan™ shelter. Install the anchor kit brackets as shown in the photos below. Pipe diameters can be found on the part identification sheets sent with your ClearSpan™ shelter. All photos show the rafter legs as seen from the inside of the shelter.

**ATTENTION:** Some connections shown use a double-nut system to keep the bolts tight. Others show a nut and lock washer.

Both are acceptable and adequate.
ANCHOR KIT (#105587) INSTALLATION

The following instructions describe the proper way to assemble and attach the anchor kit to the rafter legs of your shelter.

Required tools: Battery- (or electric-) powered drill, 3/8” drill bit, wrenches or a ratchet and socket set, hammer, shovel and/or a means to install the auger-style earth anchor.

ATTENTION: Installing one (1) auger-style anchor per rafter leg is strongly recommended.

Each anchor kit includes the parts shown below. Auger-Style Earth Anchor is not shown.

ATTENTION: Without proper support beneath the rafter legs, the shelter may sink into the ground.

WARNING: Take the necessary steps to verify whether underground cables, lines, or pipes are present before digging, installing ground augers, and anchoring the structure to the site.

Failing to follow these instructions may result in the improper anchoring of your shelter, which may cause injury or property damage or both.

The following steps describe installing the ground anchor without using concrete. Consult the attachments for additional information for loose or sandy soil conditions.

Continue with the following:

1. After the shelter is assembled and squared, install the auger-style earth anchor.

ATTENTION: The turnbuckle of the anchor kit when attached must remain at an angle that places the strongest downward force on the rafter leg.

Install the earth anchor in line with and as close to the rafter leg as possible. Use a 4" – 6" range as a guide (if possible) when installing the anchor

ALTERNATIVE METHOD (without concrete): To best secure the earth anchor, first dig a 10" diameter hole to a depth of 20". Next, twist the anchor into the hole until its eye is at ground level.

Finally, return 6" of the removed material to the hole and pack it around the anchor. Continue adding and packing the material until the anchor is secure. Consult the diagram below.

Treated 2" x 8" wood boards (as shown) work well.
**ANCHOR KIT INSTALLATION (CONTINUED)**

**Concrete Fill:** Concrete can also be used to secure the anchor instead of filling the hole as previously described. For sandy or loose soil types, using concrete to secure the auger anchor is required.

For frost line applications, dig the hole 48" deep, partially fill with concrete, install the auger-style earth anchor, and finish filling the hole to ground level with concrete.

Consult the diagrams at the back of these instructions for additional information.

**IMPORTANT:** If concrete is used, allow the concrete to set before installing and tightening the turnbuckles. The auger of the earth anchor must be encased in concrete when using concrete.

2. With the earth anchor installed, adjust the turnbuckle to its open position.

3. Remove both turnbuckle bolts, attach one end of the turnbuckle to the eye of the earth anchor, and tighten the bolt.

4. Using the turnbuckle as a guide, swing the turnbuckle to the rafter leg and mark the location. This location identifies where you will drill the hole for the anchor kit mounting bolt.

5. Carefully drill a 3/8" hole through the rafter leg.

**ATTENTION:** The mounting bolt must be level and parallel with the ground when inserted through the rafter leg.

Depending on the rafter pipe diameter and the length of the drill bit, it may be necessary to drill from both sides of the rafter leg.
ANCHOR KIT INSTALLATION (CONTINUED)

6. With the mounting hole drilled, assemble and attach the anchor kit mounting brackets as shown below. Consult the first page of this installation guide for additional details.

NOTE: Do not tighten the mounting bolt at this time. Bracket orientation depends on the rafter pipe diameter. Consult the first page of this installation guide for additional details.

7. Once the brackets are attached, attach the turnbuckle to the anchor kit brackets.

ATTENTION: The diameter of the rafter pipe determines which bolt to use to attach the turnbuckle to the anchor kit brackets.

8. Twist the slotted adjusting body of the turnbuckle until the turnbuckle is snug.

ATTENTION: The direction used to tighten the turnbuckle may differ from what is shown in the diagram.

Do not over tighten.

9. Return to and tighten all anchor kit mounting bolts.

10. Install a nut (or verify that a second nut was installed) to tighten against the first nut to keep the mounting bolts tight. If flat and lock washers are used, continue with the next step.

ATTENTION: Depending on the rafter pipe dimensions, you may not be able to use two nuts (Figure 1) to lock the bolt in place. Use the flat and lock washers as shown in Figure 2. Either setup is acceptable.

11. Repeat the above steps to install all remaining auger-style earth anchors and anchor kits.

12. After all anchor kits are installed, return to and hand tighten each turnbuckle. If you use leverage to tighten the turnbuckles, hand tighten and then tighten one full turn only.

ATTENTION: If concrete was used, allow the concrete to set 24 hours before you tighten the turnbuckles. DO NOT OVER TIGHTEN!

13. Check all turnbuckles and anchor mounting bolts periodically and frequently to verify that these remain tight and in good condition.
105587 Anchor Kit

EARTH ANCHOR ASSEMBLY (SKU: 105587) IN CONCRETE

If the optional anchor kit was purchased, use the diagrams below to properly install the auger-style earth anchor and to attach the brackets to the rafter pipes. For rafter pipe diameters greater than what is shown, consult the instructions that shipped with the kits to properly attach the anchor mounting brackets.

ATTENTION: Concrete must be used in loose or sandy soil types.

IMPORTANT: The length of the auger-style anchor shown in this example is 30".

Kits that include auger-style earth anchors of 48" and 60" are also available.

Rafter mounting foot is an additional purchase and is not included with any anchor kit or some shelters.

For best results, install the auger-style earth anchor as close to the rafter leg as possible.

ATTENTION: Install the auger-style earth anchors to the inside of the shelter.

Concrete

24" Auger-Style Earth Anchor shown in this example is included in kit #105587.

24" Concrete Pier or to the frost line depth.

Concrete Minimum 3,000 psi

104074 Brackets

Rafter Leg Pipe

Customer Supplied Baseboard

INSIDE OF SHELTER

ATTENTION: Concrete must be used in loose or sandy soil types.
IMPORTANT: The length of the auger-style anchor shown in this example is 30”.

ATTENTION: Install the auger-style earth anchors to the inside of the shelter.

NOTE: For best results, install the auger-style earth anchor in a position near the rafter leg that still allows the turnbuckle adjustment.

If the optional anchor kit was purchased, use the diagrams below to properly install the auger-style earth anchor and to attach the brackets to the rafter pipes. For rafter pipe diameters greater than what is shown, consult the instructions that shipped with the kits to properly install the anchor mounting brackets.

#105587: 30” anchor
#106656: 48” anchor
#106657: 60” anchor

Contact your sales representative to purchase anchor kits.

30” Auger-Style Earth Anchor is shown. Available anchor kits include:

30” Auger-Style Earth Anchor is shown. Available anchor kits include:

Ground Level

Turnbuckle

INSIDE OF SHELTER

104074 Brackets

Rafter Leg Pipe

Customer Supplied Baseboard

BELOW:

EARTH ANCHOR ASSEMBLY (SKU: 105587) WITHOUT CONCRETE

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