



Xi-Steel Pier System Installation Instructions By Tie Down Engineering

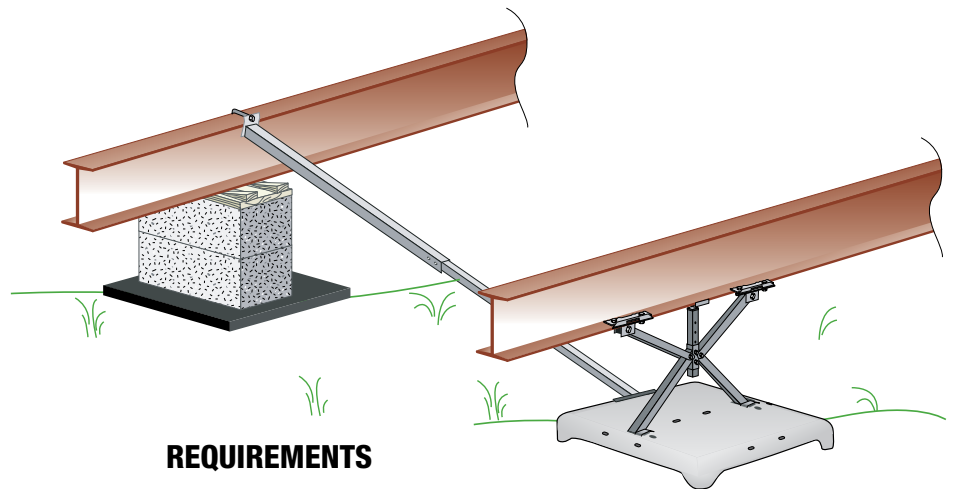
FLORIDA ONLY

Installation instructions for longitudinal and lateral stabilization of manufactured homes set to specifications of the State of Florida.

- Easy installation
- 3 square foot pad and Xi-system replace standard support pier and base pad
- Screw type pier adjusters... no need to use installation jacks to adjust home to system

Steel Pier Systems P/N's

- #59321 Xi, 12" Pier
- #59314 Xi, 25.5" Pier
- #59317 Xi, 36" Pier
- #59315 Xi, 5' Lateral Strut
- #59318 Xi, 6' Lateral Strut



REQUIREMENTS

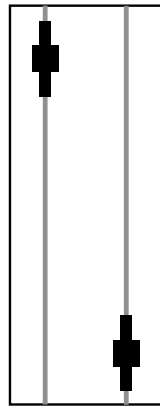
- Installation can be made in any type of soil, 4B or better
- Florida requires 5' 4" anchor spacing for vertical ties
- 4' ground anchors are used with the Xi-system in 4A and 4B soils, except at shear wall or marriage wall locations where loads exceed 3150 pounds. Florida requires that 5' anchors be used at these locations.
- Center line or shear wall anchors, that may be required by specific manufacturers, are to be sized according to soil torque conditions. Follow all manufacturers instructions for anchor type and placement in addition to Florida regulations.
- Maximum sidewall height is a 96" projection. Higher walls may be used, when the design loads are adjusted accordingly.
- Maximum roof eave is 16"
- Main rail spacing must be 99.5" or less
- Maximum pier height at the Xi-system is 48"
- Instructions are not for use on "Exposure D" homes within 1500 feet of the coastline
- Installation instructions are based on 4200# per pad longitudinal load and 6000# per pad lateral load.
- This System only replaces normal lateral frame tie and longitudinal end tie anchorage and plates, for longitudinal only installations diagonal frame ties and stabilizer plates are still needed every 5'4". The home manufacturer may require additional vertical anchor ties that are unique to a home's design. These locations may include shear walls, marriage line ridge beam supports, and rim plates. Check the manufacturer's installation instructions for set-up requirements.

Instruction #15386 (D126) Rev. 3/19/19

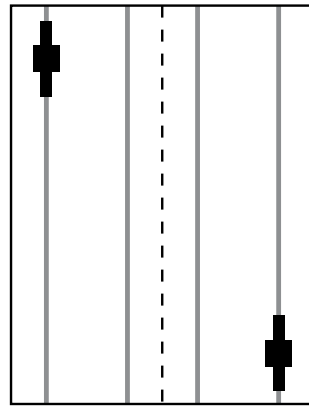
Longitudinal Stabilization for Florida

When using longitudinal stabilization only, vertical ties are required on homes supplied with vertical tie connection points (per Florida regulations).

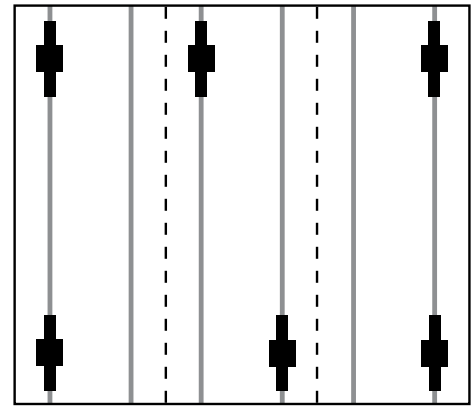
Typical Placement



Single Section
Up to 16' Nominal



Double Section
Up to 32' Nominal



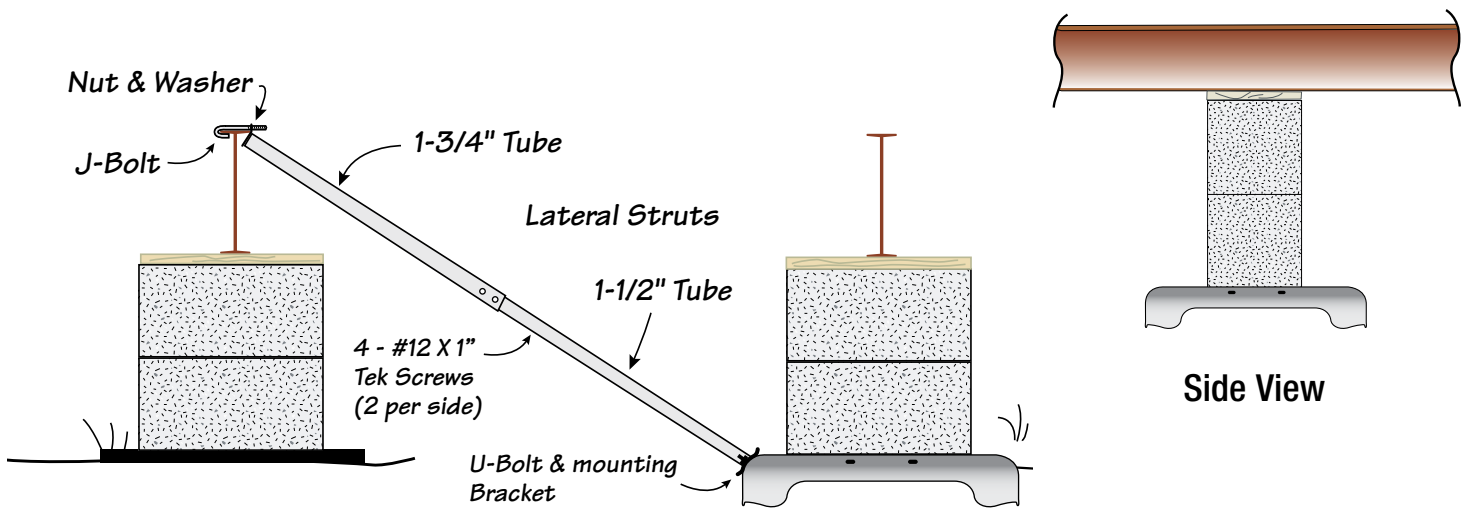
Triple Section
or Double w/tag up to 48' Nominal

When the Xi-System is used only as longitudinal stabilization, systems must be as evenly spaced as possible, no more than 16' from the end of the home. Maximum roof slope for single units & double section is 5/12, for triple sections is 3.5/12, for the above number of systems.

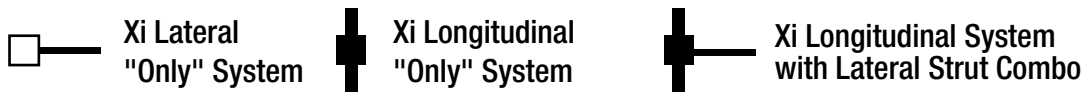
Combining Longitudinal and Lateral Stabilization for Florida

- Sidewall anchors with vertical ties every 5' 4" per Florida requirements
- Roof slope of 20 degrees or less (See chart for 5/12 roof installations).
- Single and double section homes require the same number of systems
- Triple section homes and double section homes with tag units require two additional longitudinal systems
- Diagram represents single section up to 16' width, double section up to 32' width, and triple section homes up to 48' width.
- NOTE: Older homes without vertical tie attachments, require diagonal frame ties/anchors/plates every 5'-4" per Florida regulations

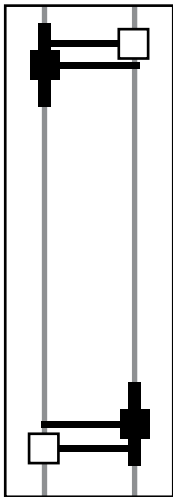
Xi Block System Assembly



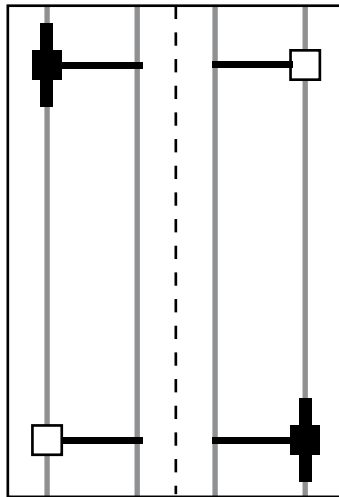
Longitudinal and Lateral Stabilization for Florida



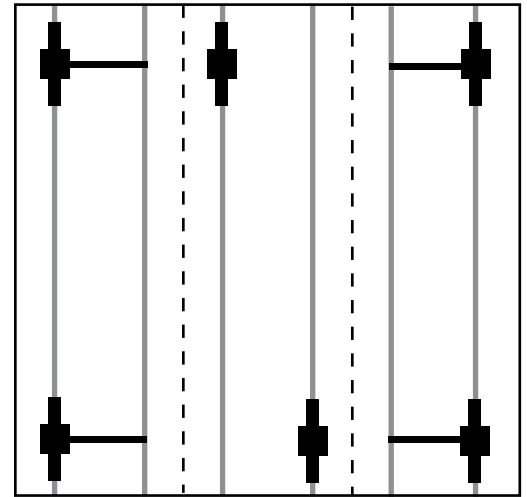
Homes Up To 52'



Single
 Up to 16' Width
 2 Combo Systems
 2 Lateral only

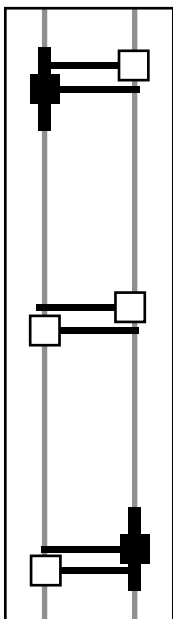


Double Section
 Up to 32' Width
 2 Combo Systems
 2 Lateral only

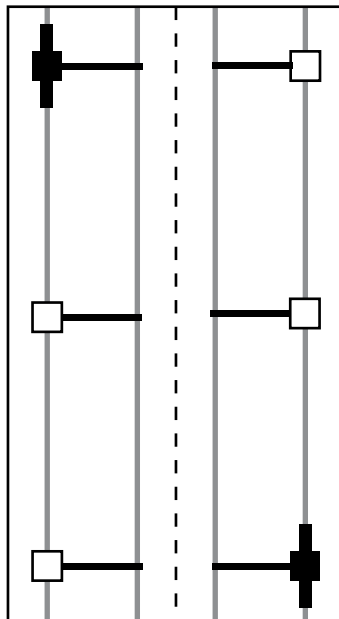


Triple Section or "Tag"
 Up to 48' Width
 4 Combo Systems
 2 Additional Longitudinal Xi Piers

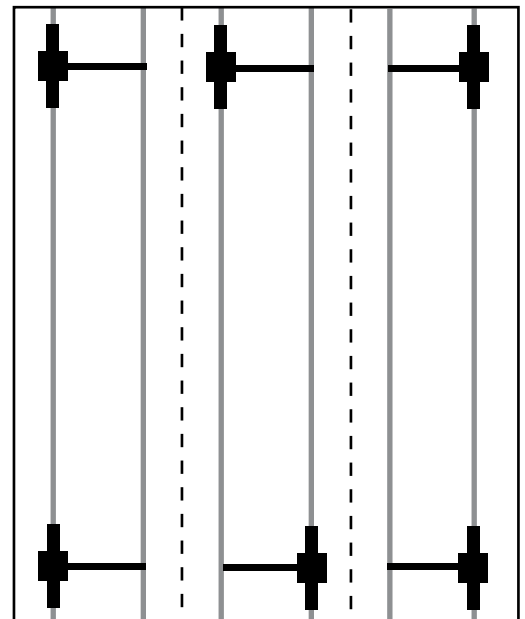
Homes Over 52', up to 80'



Single
 Up to 16' Width
 2 Combo Systems
 4 Lateral Only



Double Section
 Up to 32' Width
 2 Combo Systems
 4 Lateral Only



Triple Section or "Tag"
 Up to 48' Width
 6 Combo Systems

Note: 5/12 roof pitch home requires 2 additional systems.
 6 lateral systems up to 52', 8 lateral systems up to 80'

Installation of Longitudinal System (Figure 1)

1. Identify the number of systems to be used on the home using the chart provided.
2. Identify on the location where the longitudinal systems will be installed.
3. Clear all organic matter and debris from the pad site.
4. Place pad centered under beam using the centering mark imprinted on the pad.
5. Press or drive pan into ground until level and flush with prepared surface.
6. Slide Xi-System pier feet into slots in pad so that the Xi-system pier is centered under the I-beam.
7. Raise telescoping extension post to contact the bottom of I-beam, secure with bolt provided, tighten bolt nut. (Figure 1)
8. Turn hex nut on pier height adjuster until Xi-System pier is rigid between pad and I-beam.
9. Install Gator Beam clamps to I-beam on each side of the Xi-System pier. Do not tighten nuts at this time. (Figure 2)
10. Connect struts (open side down) to each side of the Xi-System pier using the U-bolt provided. Struts are attached to the upper hole in each pier leg and to the flanges on the beam clamps. (Figure 1)
11. Tighten all nuts and bolts on the struts and beam clamps.

Installation of Lateral System (Figure 3)

1. Assemble lateral strut by sliding smaller (1-1/2") tube into the larger (1-3/4") tube. Holes should be on the sides of the larger tube and the "flag" up on the larger tube.
2. Attach the end of the smaller tube to the inside of the pan using u-bolts and nuts provided.
3. Attach the flag end of the larger tube to the opposite I-beam using the "J" bolt over the top of the I-beam with the nut & washer provided. (Figure 4)
4. Install a minimum of four (1/4"x3/4") self-tapping screws into the holes provided in the lateral strut so that the two tubes are connected together. (Figure 1)

