



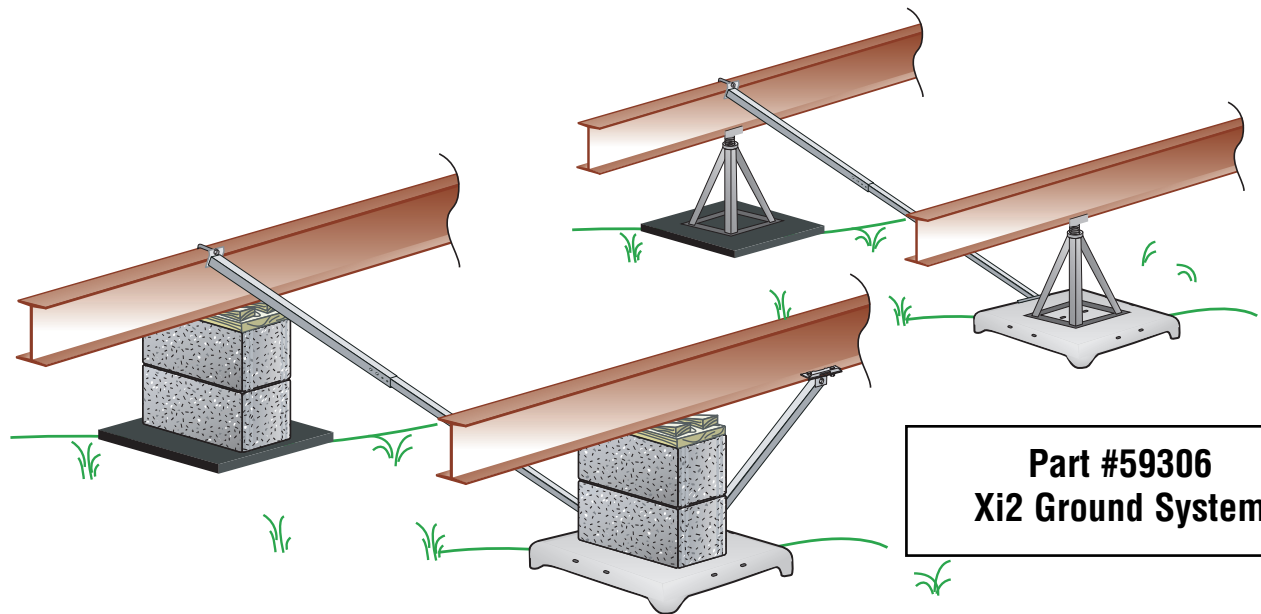
Foundation System

Installation Instructions for Wind Zone I

By Tie Down Engineering

Updated: 12/21/05

- Easy installation
- Stabilizer plates and diagonal frame ties are not required in most set-ups
- Longitudinal stabilization is easily added with Tie Down's LSD strut kit.
- Heavy galvanized coating* on bracket and struts.



Part #59306
Xi2 Ground System

REQUIREMENTS

- Install in any type of soil, 4B(175-275 lbs.) or better.
 - Maximum vertical projection at sidewall is 9'. Higher walls may be used when the design loads are adjusted accordingly.
 - Main rail spacing must be 75.5" - 99.5"
 - Additional vertical anchor ties that are unique to a home's design may be required by the home manufacturer. These locations may include shear walls, marriage line ridge beam support posts, and rim plates. The longitudinal component of the Xi2 system replaces end frame ties. Check manufacturers set-up requirements.
 - Maximum pier height is 48".
 - Systems must be placed as evenly as possible, no more than 10' from end of home.
 - Additional systems may be needed for roof slopes greater than 20 degrees, (4.37" in 12" Pitch) See Page 4.
 - Two systems designed to work in conjunction with each other.
- * Xi2 components exceed HUD code 3280.307g "Anchoring equipment exposed to weathering shall have a resistance to weather deterioration at least equivalent to that provided by a coating of zinc on steel of not less than 0.30 ounces per square foot of surface coating...."

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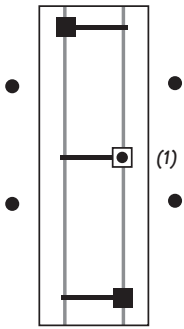


Xi2 Lateral Stabilization Pier Placement

30" Anchor w/vertical strap or frame tie w/stabilizer plate, within 10' of end of home

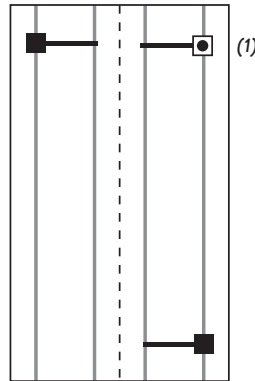
3rd System for homes over 80'

Xi2 Pier Placement



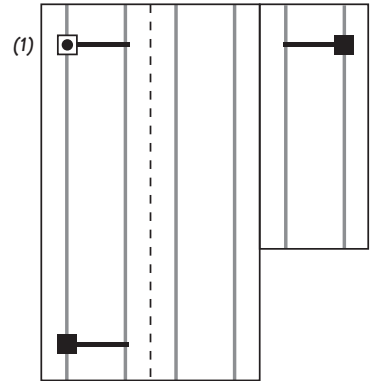
Single Section Home

0 - 80' (76' Box) 2 Xi2 Systems
(1) Over 80' (76' Box) 3 Xi2 Systems



Double Section Home

0 - 80' (76' Box) 2 Xi2 Systems
(1) Over - 80' (76' Box) 3 Xi2 Systems



Triple Section Home

0 - 80' (76' Box) 2 Xi2 Systems
(1) Over - 80' (76' Box) 3 Xi2 Systems

NOTE: Diagram represents single section up to 16' width, double section up to 32' width, and triple section homes up to 48' width. Single section homes have an "overturning moment" in high winds, requiring two anchors per side.

Installation of Lateral System

1. Identify the number of systems to be used on the home using the chart above.
2. Identify the location where the lateral systems will be installed.
3. Clear all organic matter and debris from the pad site.
4. Place pad centered under beam with the lateral strut bracket towards the inside of the home.
5. Press or drive pan into ground until level and flush with prepared surface.
6. Build pier according to State, Local or Home Manufacturers guidelines. (Figure 1)
7. Attach the end of the smaller tube to the inside of pan using U-bolt & nuts provided
8. 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 2)
9. Install a minimum of four (#12 x 1" tek screws) self-tapping screws into the holes provided in the lateral strut so that the two tubes are connected together. (Figure 1)

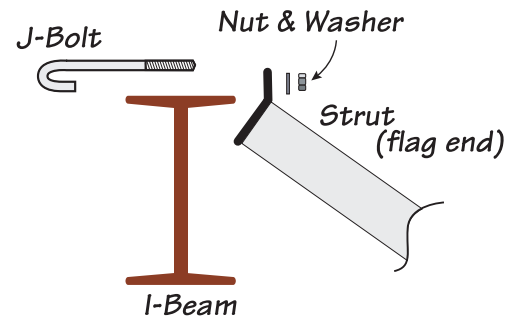


Figure 2

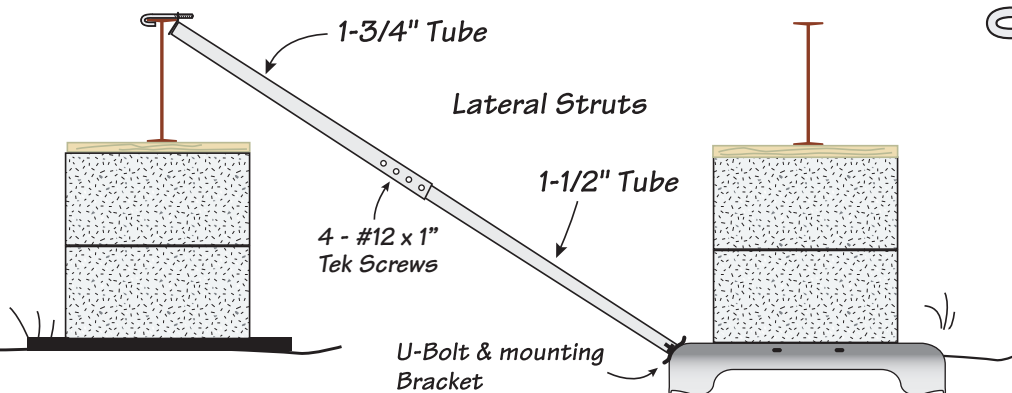


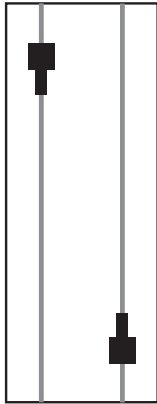
Figure 1

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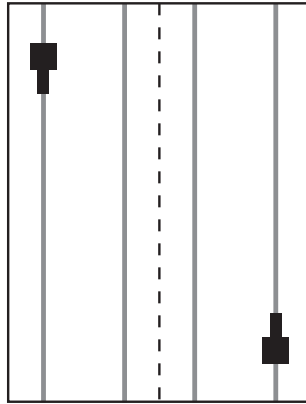


Longitudinal Installation for Xi2 System in Wind Zone I

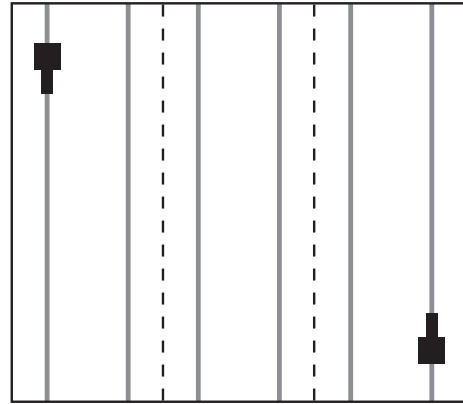
When the home manufacturer and/or local requirements include longitudinal stabilization, the installer can use the LSD system alone, or combine the LSD strut system with the Tie Down's Xi2 lateral system.



Single Section
Up to 16' Nominal

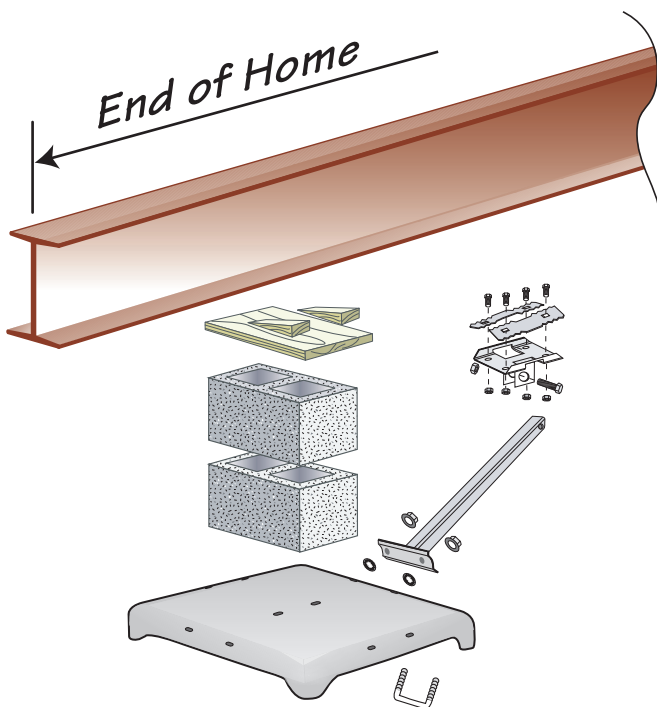


Double Section
Up to 32' Nominal



Triple Section
up to 48' Nominal

When pier with LSD struts is used only as longitudinal stabilization, systems must be as evenly spaced as possible, no more than 10' from the end of the home.



Installation of Longitudinal Struts

1. Identify the number of systems to be used on the home using the chart above.
2. Clear all organic matter and debris from the pad site.
3. Place u-bolt through holes provided. Attach lock washers on u-bolt, on the top side of pan
4. Press or drive pan into ground until level and flush with prepared surface.
5. Build pier according to State, local or Home Manufacturers guidelines.
6. Install frame bracket clamps to I-beam on in side of block/pier. Do not tighten nuts at this time.
7. Insert u-bolt through mount bracket, attach with nut and bolt. Do not tighten at this time.
8. Insert strut in the frame bracket clamp, attach with nut and bolt. Do not tighten at this time.
9. Pull the frame bracket clamp with the fastened strut outward to remove any slack.
10. Tighten all nuts and bolts on the struts and beam clamps.

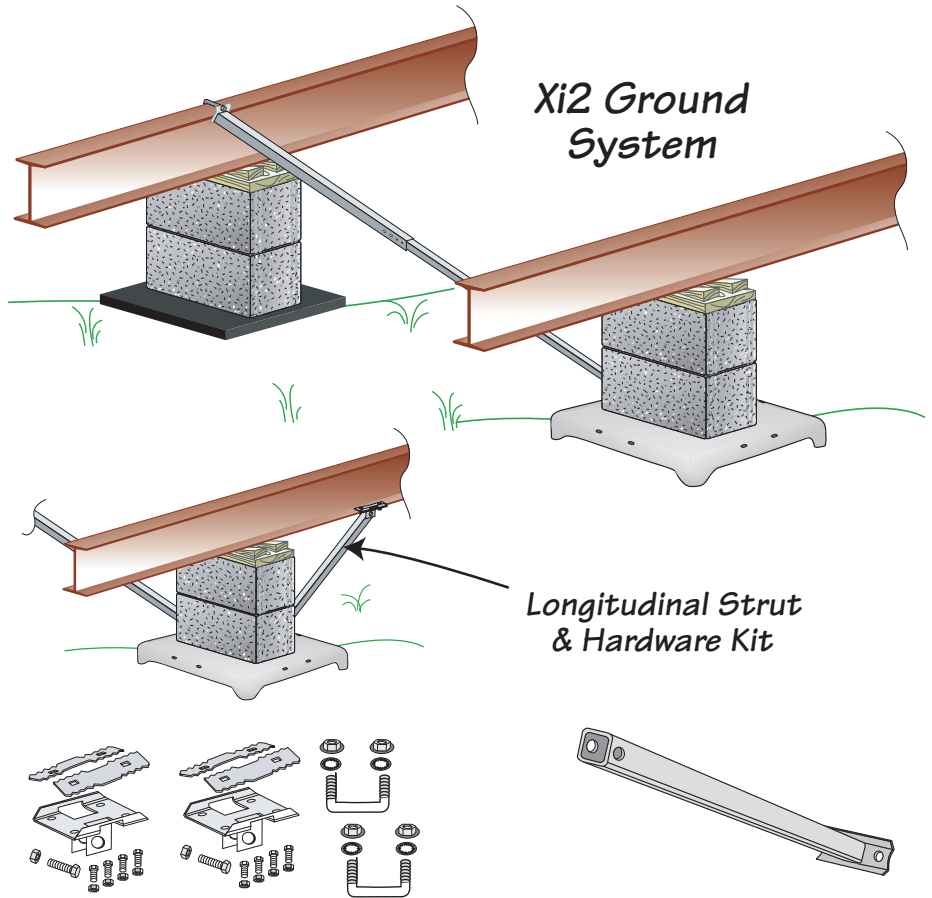
Note: Longitudinal stabilization can be combined economically with the Xi2 Lateral System. Combining LSD struts with the pad for the lateral system saves time and material costs. When combining the lateral and longitudinal systems, use the placement directions for the lateral system.

Xi2 System Requirements for Roof Pitches Higher than 20 degrees

Length of Building	Roof Pitch/Degree of Slope			
	5:12 23.6°	6:12 26.6°	7:12 30.3°	9:12 36.9°
34'	2	2	2	2
36'	2	2	2	2
38'	2	2	2	3
40'	2	2	2	3
42'	2	2	3	3
44'	2	2	3	3
46'	2	3	3	3
48'	2	3	3	3
50'	3	3	3	3
52'	3	3	3	3
54'	3	3	3	3
56'	3	3	3	3

Length of Building	Roof Pitch/Degree of Slope			
	5:12 23.6°	6:12 26.6°	7:12 30.3°	9:12 36.9°
58'	3	3	3	3
60'	3	3	3	3
62'	3	3	3	3
64'	3	3	4	4
66'	3	3	4	4
68'	3	4	4	4
70'	3	4	4	4
72'	3	4	4	4
74'	4	4	4	5
76'	4	4	4	5
78'	4	4	4	5
80'	4	4	4	5

Xi2 Ground Parts Detail



Xi2 Ground System

Includes: 5' Strut, pad & hardware.
Part Number 59306

LSD Hardware Kit

Includes: 2 I-beam brackets &
2 U-bolts with all nuts and bolts.
Part Number 59331

Struts for Longitudinal Systems

Part No.	Strut Length	Pier Height Up To:
59330-30	30"	2 Blocks or 18"
59330-39	39"	3 Blocks or 24"
59330-44	44"	4 Blocks or 32"
59330-53	53"	5 Blocks or 40"
59330-65	65"	6 Blocks or 48"

Ground Longitudinal Hardware Kit

Ground Longitudinal Strut