

Xi2-24 Zone 1 Rim Joist Uplift Hook Up



Strap can either be bolted with the swivel to the end of bracket, slid through swivel connector or through the slot in the bracket and crimped to fit. Provides joist bracket attachment for uplift strap.

Installs with (2) 1/2" X 3.25" w/ minimum 3" threads lag bolts from the bottom into the perimeter joist rail.



**Rim Joist Bracket
#59699**

4-11/16" x 2.75"
9 ga. Carbon Steel - Galvanized
3,150 lb. Design Load.



**Lag Bolt
#10424**

1/2" x 3.25"
w/min. 3" threads.

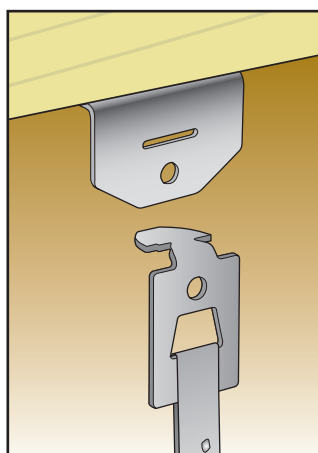
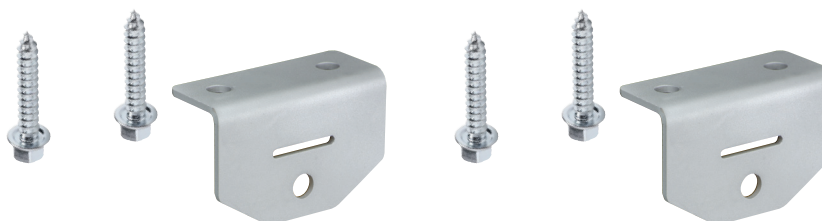
Rim Joist Bracket Kit #59700

Capacity 3,150 lbs.

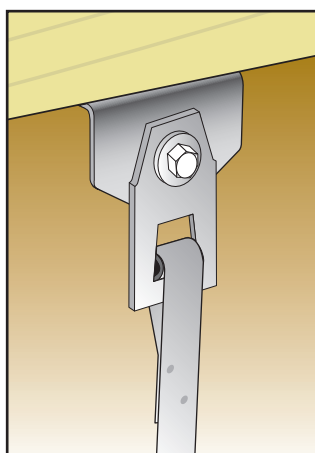
Kit Includes:

2 - Wall Brackets

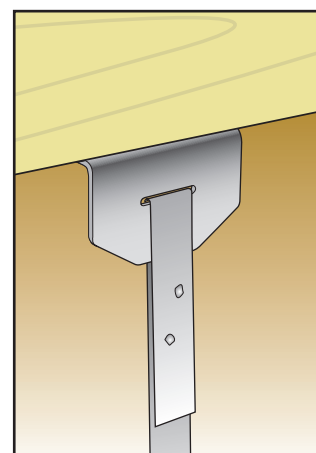
4 - Lag Bolts



**Hook Up
w/ Universal Strap**
59207 - 5 ft. Length
59208 - 6 ft. Length
3,150 lb. Design Load.



**Hook Up
w/ Swivel Strap**
59725 - 5 ft. Length
59726 - 6 ft. Length
3,150 lb. Design Load.



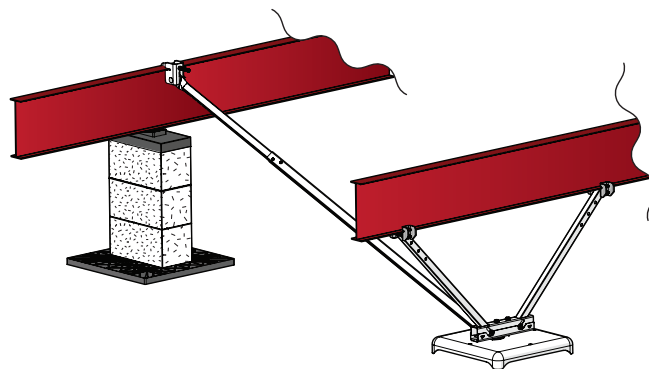
Rim Joist Bracket w/ Strap
59698 - 5 ft. Length
3,150 lb. Design Load.

XVG Steel Pier Ground System Installation Instructions for Wind Zone I, II & III Except Florida and California

Effective November 3, 2025

US Patent No.11,898,318

The XV Steel Pier System replaces the standard pier support and base pad. Installation instructions are for replacing normal lateral frame tie and longitudinal end tie anchorage and plates. In addition, the system requires a minimum amount of uplift anchors in Wind Zone I for enhanced wind protection. Check Anchor charts for details.



Ground Installation Requirements

- Install in type 4B (175-275 lbs.) soil or better.
- Main rail spacing must be 75.5" - 99.5". An exception could be made at 112" with the proper strut.
- Maximum pier height must be 48" with 6" maximum rise from the location of the system to the end of the home. For all other piers, use the manufacturers set up instructions.
- Maximum vertical projection at sidewall is 9' wall and 12" eave at roof rim. Higher walls may be used when possible for design loads to be adjusted accordingly. For 10' walls, check with Tie Down.
- Longitudinal strut angles need to be no more than 60 degrees and no less than 40 degrees.
- The XV System is installed on one of the pier footers required by the home manufacturer set up instructions. No other base pad required.
- Two systems designed to work with each other must be placed as evenly as possible. Measuring from the center of the block/pier, systems are to be placed a minimum of 2' and a recommended maximum of 10' (when needed may be a maximum of 1/4 the length of the home) from each end of the home as shown on pier placement chart.
- For roof slopes greater than 20 degrees (4.37" in 12" Pitch), see page 3.
- Although soil is the recommended base for the XV pan, properly selected and installed gravel may also be used. The gravel must be smooth (not crushed rock), clean, 3/8" diameter maximum, installed and compacted as necessary. Installing the incorrect gravel may not allow the system to obtain full design capacity.
- This system only replaces normal lateral frame tie and or longitudinal end tie anchorage, with minimum uplift anchorage added for Wind Zone I. Wind zones II & III (100+ mph) require additional vertical sidewall anchorage for high wind areas. The home manufacturer may require additional vertical anchor ties that are unique to the homes design. These locations may include shear walls, marriage line ridge beam supports, and rim plates. Check manufacturers installation instructions for set up requirements.

XV components exceed HUD code 3280.306 g "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 coated. The XVG Foundation System by Tie Down complies with 24CFR Part 3280 & 3285 when installed in accordance with the instructions provided by Tie Down.

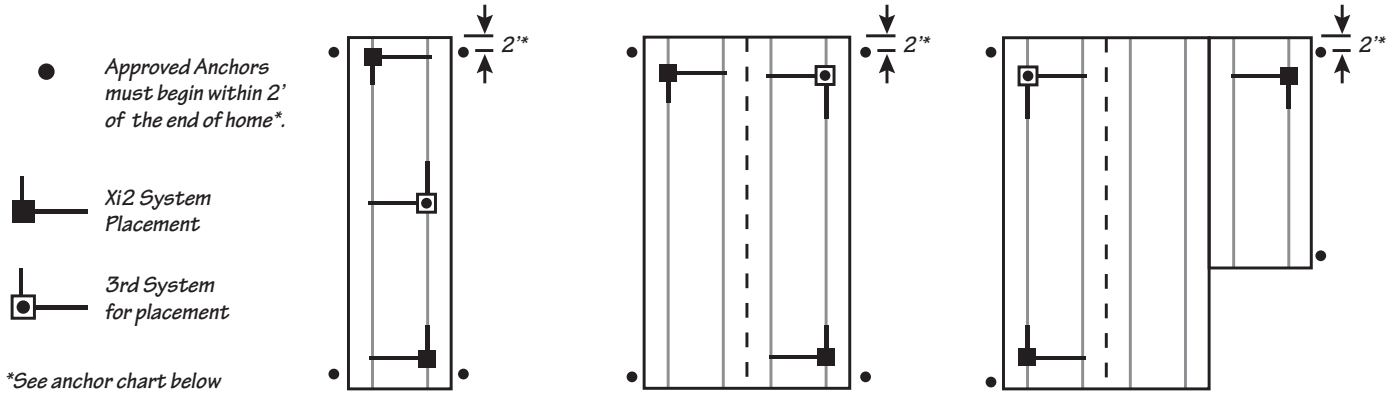


Up To Date
Ground
Installation Manual

WARNING: This product can expose you to chemicals including Nickel, which is known to the State of California to cause cancer. For more information go to: www.P65Warnings.ca.gov

Instruction #08461 (D2042 - Rev. 9/12/25)

XVG Steel Pier Placement



Wind Zones I & II

Single Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Double Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Triple Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Wind Zones III

Single Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Double Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Triple Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Wind Zone I Uplift Anchors Chart

Home Section	Home Width	4:12		5:12		6:12-7:12	
		Home Length	Anchors Per Side	Home Length	Anchors Per Side	Home Length	Anchors Per Side
Single	12 ft. up to 140 in.	up to 63 ft.	3	up to 55 ft.	4	up to 45 ft.	4
		64 ft. to 90 ft.	4	56 ft. to 74 ft.	5	46 ft. to 62 ft.	5
				75 ft. to 90 ft.	6	63 ft. to 78 ft.	6
Double	14 ft.-18 ft. 156 in. to 210 in.	up to 73 ft.	3	up to 58 ft.	4	up to 47 ft.	4
		74 ft. to 90 ft.	4	59 ft. to 78 ft.	5	48 ft. to 64 ft.	5
				79 ft. to 90 ft.	6	65 ft. to 81 ft.	6
Triple	20 ft. to 32 ft. 2 x 118 in. to 2 x 186 in. 20' (2 x 118 in.) 24 ft. to 32 ft. 2 x 140 in. to 2 x 186 in.	up to 90 ft.	2				
		up to 90 ft.	2	up to 90 ft.	3	up to 90 ft.	4
				up to 90 ft.	2	up to 90 ft.	3
Triple	36 ft. to 48 ft. 3 x 140 in. to 3 x 186 in.	up to 90 ft.	2	up to 90 ft.	2	up to 90 ft.	2

IMPORTANT: System Uplift Anchors are to be installed to the bottom of the rim joist with 3150lb. bracket and lag bolts, not I-beam. The corner anchors should be installed within 2' of the end of the home and any additional anchors installed as evenly as possible per side.

Note: In the event that the home has a solid foundation wall at the sidewall, instead of a bracket at the sidewall as described previously, the bracket can be relocated to a floor joist a maximum of 10" from the sidewall and connected with a vertical strap to a ground anchor, as long as the following limitations to the regular anchor spacings are observed.

Single Sections: 5/12 Max roof slope -add one bracket and anchor, evenly spaced per side.

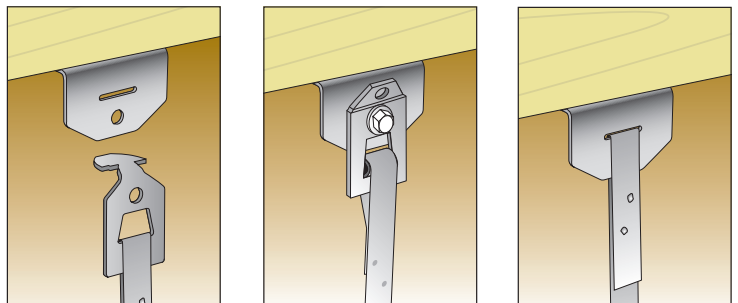
7/12 Max roof slope -add two brackets/anchors evenly spaced per side.

Doubles and Triple sections – no additional anchors required.

Uplift Rim Joist Bracket

Bracket attaches to the bottom of rim joist with (2) 1/2"-3.25" lag bolts with minimum 3" threads. Bracket can face inward or outward. Install lag bolts into 2 pre drilled 5/16" holes.

Strap can either be bolted with swivel to end of bracket, slid through swivel connector or through the slot in the bracket and crimped to fit. Strap angle must be 75 deg. to 90 deg.



Xi2-24 System Requirements for Roof Pitches Higher than 20 degrees

Additional Systems:

On a single section home, the 3rd system is placed in the middle of the home. When using 3 or 4 systems (double and triple sections), install on opposite corners. If needed, a 5th system would be in the center of the unit on either side.

Xi2 Longitudinal Stabilization for Wind Zones II & III

When using longitudinal stabilization only, in higher wind zones, Systems must be spaced as evenly as possible, no more than 10' from the end of the home. Longitudinal Struts DO NOT replace anchors on single section homes.

NOTE: On triple section homes in Wind Zones II & III an additional longitudinal system is required. It should be installed on the center section.

Length (Feet)	Wind Zone I				Wind Zone II				Wind Zone III			
	5:12	6:12	7:12	9:12	5:12	6:12	7:12	9:12	5:12	6:12	7:12	9:12
34	2	2	2	2	2	2	2	2	2	2	3	3
36	2	2	2	2	2	2	2	3	2	2	3	3
38	2	2	2	3	2	2	2	3	2	3	3	3
40	2	2	2	3	2	2	2	3	3	3	3	3
42	2	2	3	3	2	2	3	3	3	3	3	3
44	2	2	3	3	2	2	3	3	3	3	3	3
46	2	3	3	3	2	3	3	3	3	3	3	4
48	2	3	3	3	3	3	3	3	3	3	3	4
50	3	3	3	3	3	3	3	3	3	3	3	4
52	3	3	3	3	3	3	3	3	3	3	4	4
54	3	3	3	3	3	3	3	3	3	3	4	4
56	3	3	3	3	3	3	3	3	3	3	4	4
58	3	3	3	3	3	3	3	3	3	3	4	4
60	3	3	3	3	3	3	3	3	3	3	4	5
62	3	3	3	3	3	3	3	3	4	4	4	5
64	3	3	4	4	3	3	4	4	4	4	4	5
66	3	3	4	4	3	3	4	4	4	4	4	5
68	3	4	4	4	3	4	4	4	4	4	5	5
70	3	4	4	4	3	4	4	4	4	4	5	5
72	3	4	4	4	4	4	4	5	4	4	5	5
74	4	4	4	5	4	4	4	5	4	5	5	5
76	4	4	4	5	4	4	4	5	4	5	5	6
78	4	4	4	5	4	4	4	5	4	5	5	6
80	4	4	4	5	4	4	4	5	4	5	5	6

Fig. 3-1

Step 1

- Stand the steel pan on its side. Slide the u-bolt from the underside of the pan passing through to the top.
- Attach two flange nuts over the u-bolt, just enough to prevent the u-bolt from coming loose during pan installation. See Fig. 3-2.
- Clear all organic matter and debris from the pan site.
- Place pan centered under I-beam.
- Press or drive pan into ground until the top of the pan is level and flush with prepared surface.

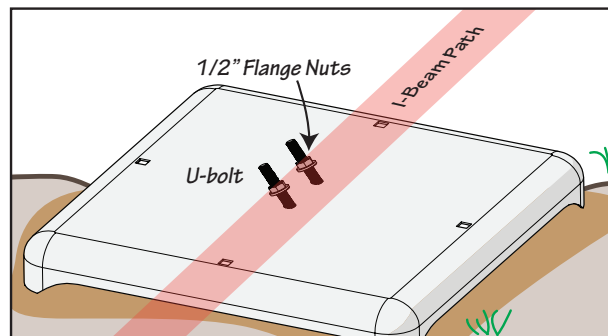


Fig. 3-2

Step 2

- Remove the flange nuts from the U-bolt. Place the U-bolt in a upright position.
- Slide the end of the lateral strut over the outer u-bolt leg as shown in Fig 3-3.
- Slide the pan washer over the u-bolt leg and on top of the lateral strut.
- Slide the lower tension bracket over the u-bolt/pan washer/lateral strut.
- Slide the upper tension bracket over the u-bolt and place it inside the lower tension bracket as shown right in Fig 3-3.
- Attach two flange nuts over the u-bolt and tension bracket. Loosely tighten flange nuts, DO NOT FULLY TIGHTEN NUTS.

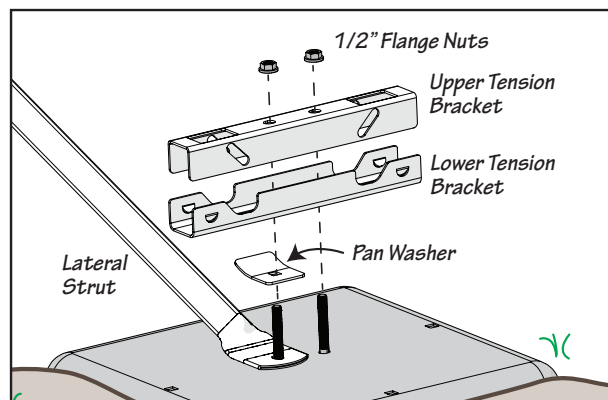


Fig. 3-3

Step 3 - Longitudinal Struts

- Insert the black end caps into the bottom end of two longitudinal struts.
- Insert longitudinal struts into the ends of the assembled tension bracket as shown in Fig. 3-4,. The struts will hang loose.

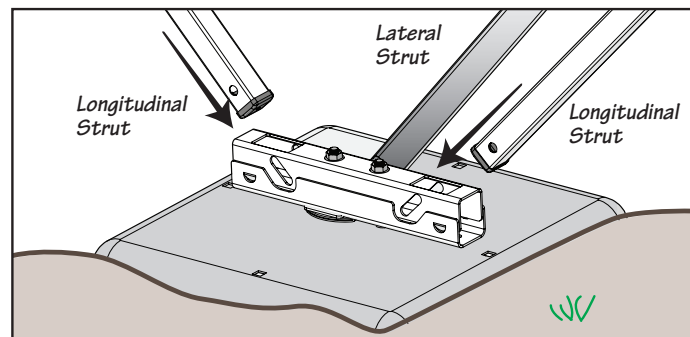


Fig. 3-4

Step 4 - Longitudinal Beam Clamp

- Position two longitudinal beam clamps on both sides of the I-beam. The I-beam frame will slide into the slots on the clamps.
- Raise the longitudinal strut upward and position it between the two beam brackets as shown right in Fig. 4-1.
- Insert a 4" carriage bolt through the clamp, strut, and opposite clamp as shown right.
- Attach a flange nut to the carriage bolt.

Step 5 - Longitudinal Strut

- Pull the beam bracket assembly outward removing any loose slack between the beam clamp and base.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the beam clamp assembly. Note: As the bolt/nut tighten, the two beam clamps will begin to crimp the I-beam frame.

Step 6 - Beam Clamp

- Extend the lateral strut outward to the opposite side I-beam as shown above. NOTE: The fully extended strut must maintain a minimum 6" to 8" overlap between inner and outer tubes.
- Slide the "J" bolt over the I-beam and between the home frame.
- Slide the beam clamp over the "J" bolt end passing through the top of the beam clamp and slide the clamp over the I-beam frame as shown in Fig. 4-3. Attach flange nut over the "J" bolt and loosely tighten nut.
- Align/insert the lateral strut end in the mounting slot on the bottom of the beam clamp. As shown right in Fig. 4-3.
- Pass a carriage bolt through the beam clamp and lateral strut coming out the opposite side beam clamp. Loosely tighten flange nut. Do not fully tighten nut.
- Slide the assembled beam clamp with the mounted lateral strut left or right aligning the strut perpendicular to the XV pan/hardware.
- Once the beam clamp/strut attachment is in its final location, tighten the two flange nuts.

Step 7 - XVG Base Final Tensioning

- Using a 3/4" deep socket/impact driver, tighten the two flange nuts on top of the tension bracket.
- As the flange nuts tighten, the upper tension bracket will compress downward into the lower tension bracket as shown in Fig 4-4 "A".
- Continue tightening the flange nuts until the upper bracket fully compress into the lower tension bracket as shown in Fig. 4-4 "B"

Step 8 - Strut Fasteners

- Secure the extended lateral strut by mounting 4 self tapping screws in the 4 holes in the outer lateral tube as shown in Fig. 4-2. Attach two screws per side.

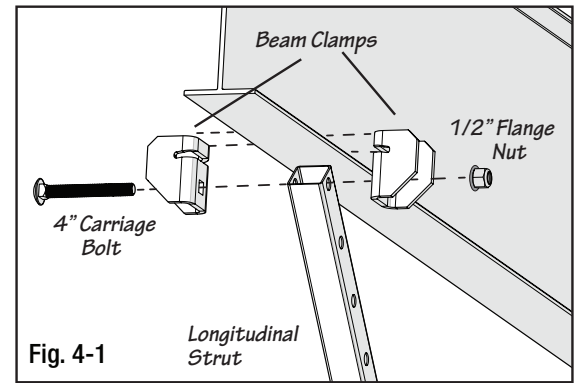


Fig. 4-1

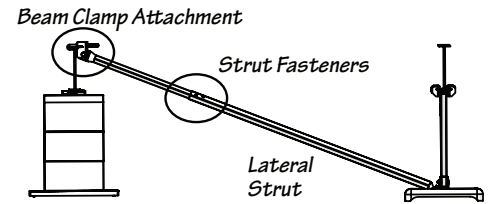


Fig. 4-2

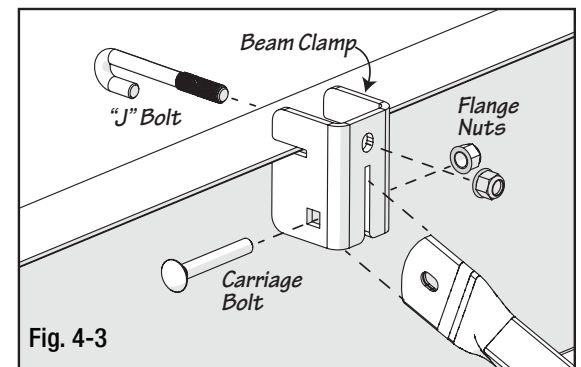


Fig. 4-3

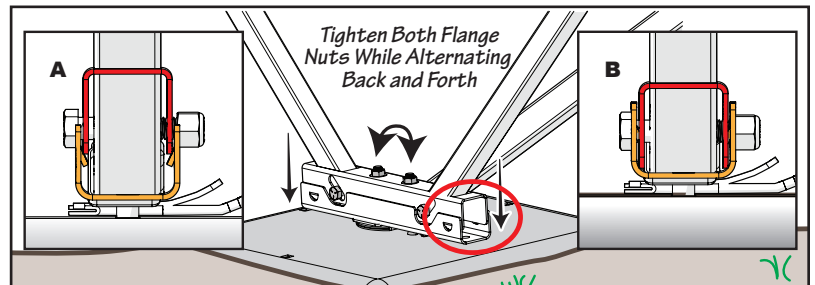


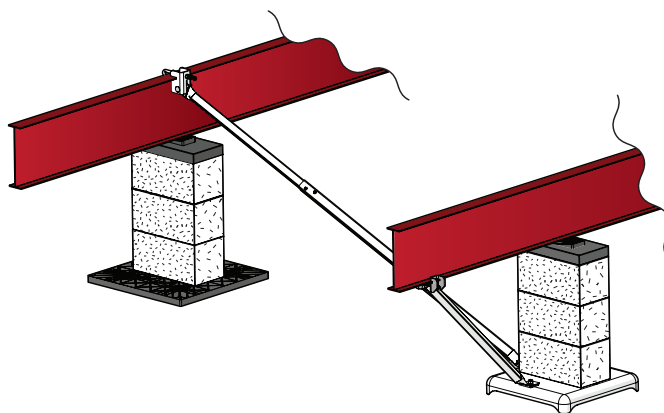
Fig. 4-4

Xi2-24 Ground Foundation System Installation Instructions for Wind Zone I, II & III Except Florida and California

Effective November 3, 2025

US Patent No.11,898,318

The Xi2-24 System Instructions use the lateral and longitudinal struts to replace normal lateral frame tie and longitudinal end tie anchorage and stabilizer plates. In addition the system requires a minimum amount of uplift anchors in Zone I for enhanced wind protection. Check anchor charts for details



Installation Requirements

- Install in any type soil, 4B (175-275 lbs.) or better.
- Main rail spacing must be 75.5" – 99.5", 112" exception with proper strut.
- Maximum pier height at system 48", with 6" maximum rise from location of system to end of home. For all other piers use the home manufacturers set up instructions.
- Maximum vertical projection at sidewall is 9' wall and roof rim (9' wall and 12" eave). Higher walls may be used, when possible for design loads to be adjusted accordingly. For 10' walls, check with Tie Down.
- Longitudinal strut angle no more than 50 degrees and no less than 25 degrees. The longitudinal component of the Xi2 system replaces end frame ties. Check manufacturers requirements.
- The Xi2-24 System is installed on or under one of the pier footers required by manufacturers set up instructions, no other base pad required. If home is already set, a new pier can be added between existing piers as long as the other requirements are met.
- For roof slopes greater than 20 degrees, (4.37" in 12" pitch) see page 3.
- Two systems designed to work with each other must be placed as evenly as possible. Measuring from the center of the block/pier, systems are to be placed a minimum of 2' to a recommended maximum of 10' (when needed may be a maximum of 1/4 the length of the home) from each end of home as shown on pier placement chart. Components of the Xi-24 system such as the longitudinal strut and connecting hardware, may extend beyond pier location and can face in or out as long as both systems share the same direction, both either facing in or both facing out.
- Although soil is the recommended base for the Xi-2 pan, properly selected and installed gravel may also be used. The gravel must be smooth (not crushed rock), clean, 3/8" diameter maximum, installed and compacted as necessary. Installing incorrect gravel may not allow the system to obtain full design capacity.
- This System only replaces normal lateral frame tie and or longitudinal end tie anchorage, with minimum uplift anchorage for Wind Zone I. Wind Zones II & III (100+ mph) require additional vertical sidewall anchorage for high wind areas. The home manufacturer may require additional vertical anchor ties that are unique to the home's design. These locations may include shear walls, marriage line ridge beam supports, and rim plates. Check the Manufacturers installation instructions for set-up requirements.



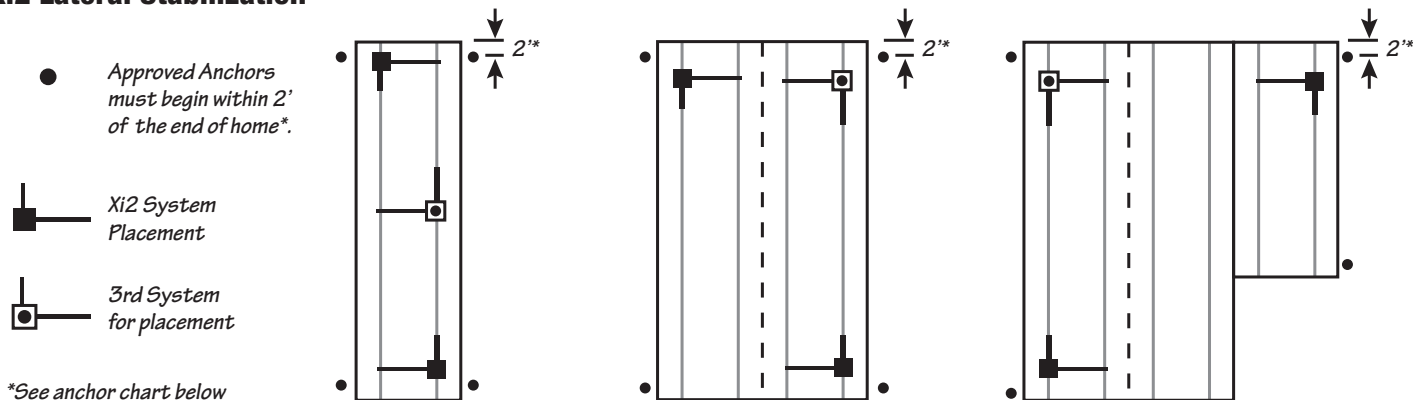
WARNING: This product can expose you to chemicals including Nickel, which is known to the State of California to cause cancer. For more information go to: www.P65Warnings.ca.gov



Up To Date
Ground Installation
Instructions

Instruction #08463 (D2044 - Rev. 9/12/25)

Xi2 Lateral Stabilization



Wind Zones I & II

Single Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Double Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Triple Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Wind Zones III

Single Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Double Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Triple Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Wind Zone I Uplift Anchors Chart

Home Section	Home Width	4:12		5:12		6:12-7:12	
		Home Length	Anchors Per Side	Home Length	Anchors Per Side	Home Length	Anchors Per Side
Single	12 ft. up to 140 in.	up to 63 ft.	3	up to 55 ft.	4	up to 45 ft.	4
		64 ft. to 90 ft.	4	56 ft. to 74 ft.	5	46 ft. to 62 ft.	5
	14 ft.-18 ft. 156 in. to 210 in.	up to 73 ft.	3	up to 58 ft.	4	up to 47 ft.	4
		74 ft. to 90 ft.	4	59 ft. to 78 ft.	5	48 ft. to 64 ft.	5
Double	20 ft. to 32 ft. 2 x 118 in. to 2 x 186 in.	up to 90 ft.	2	up to 90 ft.	3	up to 90 ft.	4
		up to 90 ft.	2		2	up to 90 ft.	3
	20' (2 x 118 in.) 24 ft. to 32 ft.						
	2 x 140 in. to 2 x 186 in.						
Triple	36 ft. to 48 ft.	up to 90 ft.	2	up to 90 ft.	2	up to 90 ft.	2
	3 x 140 in. to 3 x 186 in.						

IMPORTANT: System Uplift Anchors are to be installed to the bottom of the rim joist with 3150lb. bracket and lag bolts, not I-beam. The corner anchors should be installed within 2' of the end of the home and any additional anchors installed as evenly as possible per side.

Note: In the event that the home has a solid foundation wall at the sidewall, instead of a bracket at the sidewall as described previously, the bracket can be relocated to a floor joist a maximum of 10" from the sidewall and connected with a vertical strap to a ground anchor, as long as the following limitations to the regular anchor spacings are observed.

Single Sections: 5/12 Max roof slope -add one bracket anchor, evenly spaced per side.

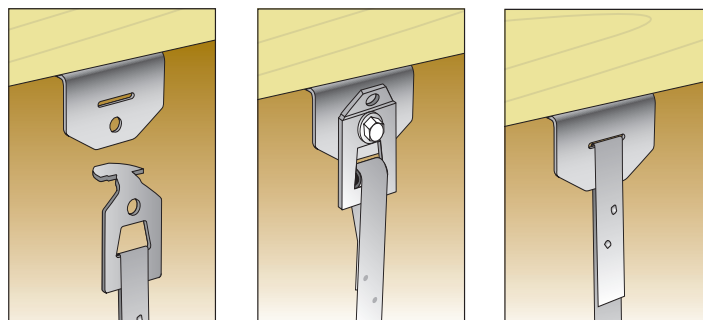
7/12 Max roof slope -add two brackets/anchors evenly spaced per side.

Doubles and Triple sections – no additional anchors required.

Uplift Rim Joist Bracket

Bracket attaches to the bottom of rim joist with (2) 1/2"-3.25" lag bolts with minimum 3" threads. Bracket can face inward or outward. Install lag bolts into 2 pre drilled 5/16" holes.

Strap can either be bolted with swivel to end of bracket, slid through swivel connector or through the slot in the bracket and crimped to fit. Strap angle must be 75 deg. to 90 deg.



Xi2-24 System Requirements for Roof Pitches Higher than 20 degrees

Additional Systems:

On a single section home, the 3rd system is placed in the middle of the home. When using 3 or 4 systems (double and triple sections), install on opposite corners. If needed, a 5th system would be in the center of the unit on either side.

Xi2 Longitudinal Stabilization for Wind Zones II & III

When using longitudinal stabilization only, in higher wind zones, Systems must be spaced as evenly as possible, no more than 10' from the end of the home. Longitudinal Struts DO NOT replace anchors on single section homes.

NOTE: (2) Longitudinal struts required on each end for Wind Zones II & III.

NOTE: On triple section homes in WZ II & III an additional longitudinal system is required. It should be installed on the center section.

Fig. 3-1

Length (Feet)	Wind Zone I				Wind Zone II				Wind Zone III			
	5:12	6:12	7:12	9:12	5:12	6:12	7:12	9:12	5:12	6:12	7:12	9:12
34	2	2	2	2	2	2	2	2	2	2	3	3
36	2	2	2	2	2	2	2	3	2	2	3	3
38	2	2	2	3	2	2	2	3	2	3	3	3
40	2	2	2	3	2	2	2	3	3	3	3	3
42	2	2	3	3	2	2	3	3	3	3	3	3
44	2	2	3	3	2	2	3	3	3	3	3	3
46	2	3	3	3	2	3	3	3	3	3	3	4
48	2	3	3	3	3	3	3	3	3	3	3	4
50	3	3	3	3	3	3	3	3	3	3	3	4
52	3	3	3	3	3	3	3	3	3	3	4	4
54	3	3	3	3	3	3	3	3	3	3	4	4
56	3	3	3	3	3	3	3	3	3	3	4	4
58	3	3	3	3	3	3	3	3	3	3	4	4
60	3	3	3	3	3	3	3	3	3	3	4	5
62	3	3	3	3	3	3	3	3	4	4	4	5
64	3	3	4	4	3	3	4	4	4	4	4	5
66	3	3	4	4	3	3	4	4	4	4	4	5
68	3	4	4	4	3	4	4	4	4	4	5	5
70	3	4	4	4	3	4	4	4	4	4	5	5
72	3	4	4	4	4	4	4	5	4	4	5	5
74	4	4	4	5	4	4	4	5	4	5	5	5
76	4	4	4	5	4	4	4	5	4	5	5	6
78	4	4	4	5	4	4	4	5	4	5	5	6
80	4	4	4	5	4	4	4	5	4	5	5	6

Xi2-24 Foundation System Installation for Ground Pads

Step 1 - Ground Pad

- Stand the ground pad on its side. Slide a carriage bolts through the pan washers passing through the ground pad as shown right in Fig 3-1.
- *Note: The curved side of the pan washer must be positioned away from the curved edge of the ground pad, as illustrated in Figure 3-2.**
- Attach two star washers over the carriage bolts on top of the ground pan, securing both bolts in place as in Fig 3-2.
- Clear all organic matter and debris from the pad site.
- Place pad centered under I-beam.
- Press or drive pan into ground until the top of the pan is level and flush with prepared surface.
- Stack the pier blocks as needed.

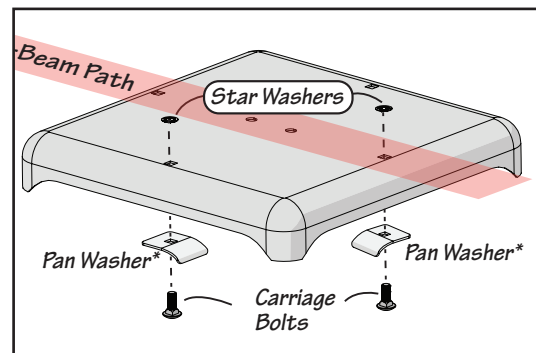


Fig. 3-2

Step 2 -Longitudinal Beam Strut Attachment

- Position Longitudinal beam clamps on both sides of the I-beam. The I-beam frame will slide into the slot on the clamp.
- Extend the top of the longitudinal strut upward and position it between the two beam brackets as shown right in Fig 3-3. **Note:** The fully extended Longitudinal Strut must maintain a minimum of 6" to 8" overlap between inner and outer tubes.
- Insert a 4 "carriage bolt through the bracket and insert the spacers on each side of the strut before sliding bolt all the way through.
- Attach a flange nut to the carriage bolt. **Note:** the two "loose" beam clamps will appear to be out of alignment with the frame.
- Do Not tighten beam clamps.

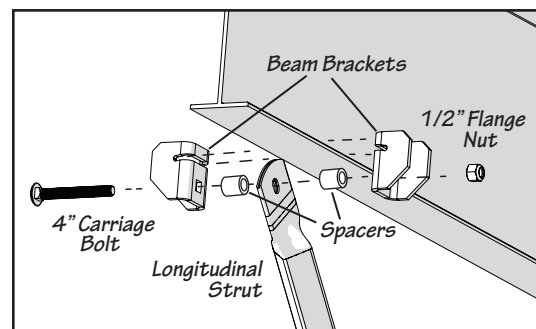


Fig. 3-3

Step 3 - Longitudinal Base Strut Attachment

- Slide the end of the Longitudinal strut over the carriage bolt on the ground pad.
- Slide a pan washer over the carriage bolt/longitudinal strut, install a flange nut over the carriage bolt as shown in figure 4-3.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the ground pad.
- Using a 3/4" deep socket/impact driver, tighten the flange on the beam clamp.

Step 4 - Longitudinal Strut Fasteners

- Secure the extended Longitudinal Strut by installing 4 self tapping screws in the 4 holes in the outer Longitudinal tube as shown in Fig. 4-4. Attach 2 screw per side.

Step 5 - Lateral Strut Beam Attachment

- Extend the lateral strut outward to the opposite side I-beam.
NOTE: The fully extended strut must maintain a minimum 6" to 8" overlap between inner and outer tubes.
- Slide the "J" bolt over the I-beam and between the home frame.
- Slide the beam clamp over the "J" bolt end passing through the top of the beam clamp and slide the clamp over the I-beam frame as shown in Fig. 4-2. Attach flange nut over the "J" bolt and loosely tighten nut.
- Align/insert the lateral strut end in the mounting slot on the bottom of the beam clamp as shown in Fig. 4-2.
- Pass a carriage bolt through the beam clamp and lateral strut coming out the opposite side beam clamp. Loosely tighten flange nut. Do not tighten nut.
- Slide the assembled beam clamp with the mounted lateral strut left or right aligning the strut perpendicular to the pad.
- Once the beam clamp/strut attachment is in its final location, tighten the two flange nuts.

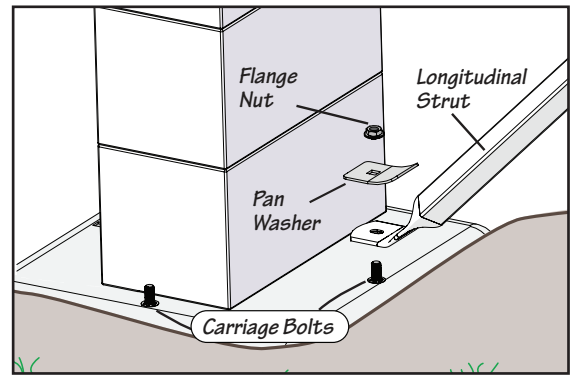


Fig. 4-1

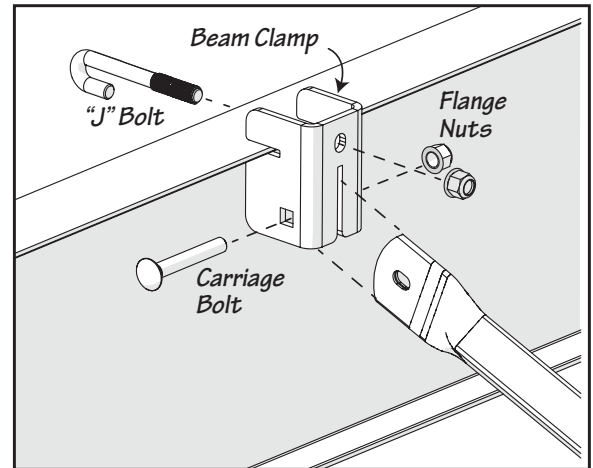


Fig. 4-2

Step 6 - Lateral Strut Base Attachment

- Slide the end of the lateral strut over the carriage bolt on the ground pad.
- Slide a pan washer over the carriage bolt/lateral strut, install a flange nut over the carriage bolt as shown right in Fig. 4-3.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the **ground pad**.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the **beam clamp**.

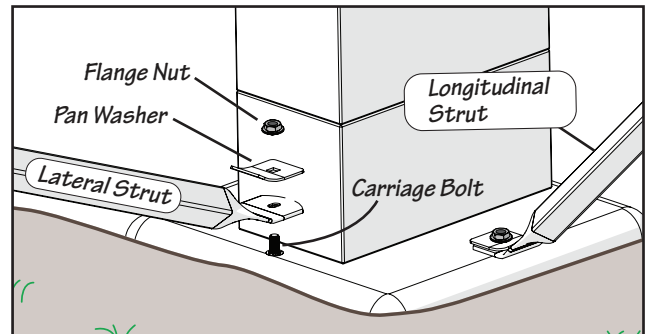


Fig. 4-3

Step 7 - Strut Fasteners

- Secure the extended lateral strut by mounting 4 self tapping screws in the 4 holes in the outer lateral tube as shown in Fig. 4-4. Attach two screws per side.

Lateral Strut Beam Attachment

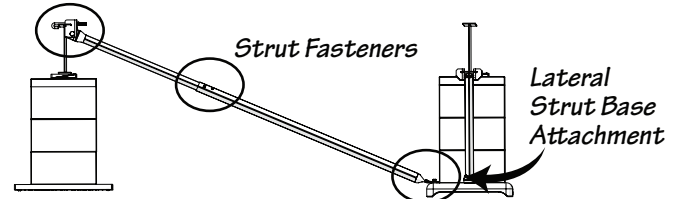


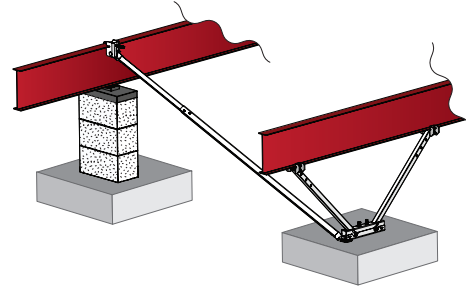
Fig. 4-4

XVC Steel Pier Concrete System Installation Instructions for Wind Zone I, II & III Except Florida and California

Effective November 3, 2025

US Patent No.11,898,318

The XV Steel Pier System replaces the standard pier support and base pad. Installation instructions are for replacing normal lateral frame tie and longitudinal end tie anchorage and plates. In addition, the system requires a minimum amount of uplift anchors in Wind Zone I for enhanced wind protection. Check Anchor charts for details.



Installation Requirements

- Install in type 4B (175-275 lbs.) soil or better.
- Main Rail Spacing must be 75.5" – 99.5", 112" exception with proper strut.
- Maximum pier height must be 48" with 6" maximum rise from the location of the system to the end of the home. For all other piers, use the manufacturers set up instructions.
- Maximum vertical protection at sidewall is 9' wall and 12" eave at roof rim. Higher walls may be used when possible for design loads to be adjusted accordingly. For 10' walls, check with Tie Down.
- Longitudinal strut angles need to be no more than 60 degrees and no less than 40 degrees.
- The XV System is installed on one of the pier footers required by the home manufacturer set up instructions. No other base pad required.
- Two systems designed to work with each other must be placed as evenly as possible. Measuring from the center of the block/pier, systems are to be placed a minimum of 2' and a recommended maximum of 10' (when needed may be a maximum of 1/4 the length of the home) from each end of the home as shown on pier placement chart.
- For roof slopes greater than 20 degrees (4.37" in 12" Pitch), see page 3.
- This system only replaces normal lateral frame tie and or longitudinal end tie anchorage, with minimum uplift anchorage added for Wind Zone I. Wind zones II & III (100+ mph) require additional vertical sidewall anchorage for high wind areas. The home manufacturer may require additional vertical anchor ties that are unique to the homes design. These locations may include shear walls, marriage line ridge beam supports, and rim plates. Check manufacturers installation instructions for set up requirements.

Concrete Installation Requirements

- Poured concrete must be must be 2,500 PSI minimum at 28 days. Bottom of footers must be below the frost line or a minimum of 4" below finished grade. Check with authorities for local requirements (LAHJ).
- **Footer Requirement:** Must to be large enough for the pier load at that location and be a minimum of 22" wide by 6" deep with anchor wedge bolts a minimum of 4" from any edge or 18" wide by 12" deep with anchor wedge bolts a minimum of 1-1/2" from edge. Strip footings minimum of 18" wide by 14' long by 6" deep or 27" wide by 14' long by 4" deep.

XV components exceed HUD code 3280.306 g "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 coated. The XV Foundation System by Tie Down complies with 24CFR Part 3280 & 3285 when installed in accordance with the instructions provided by Tie Down.

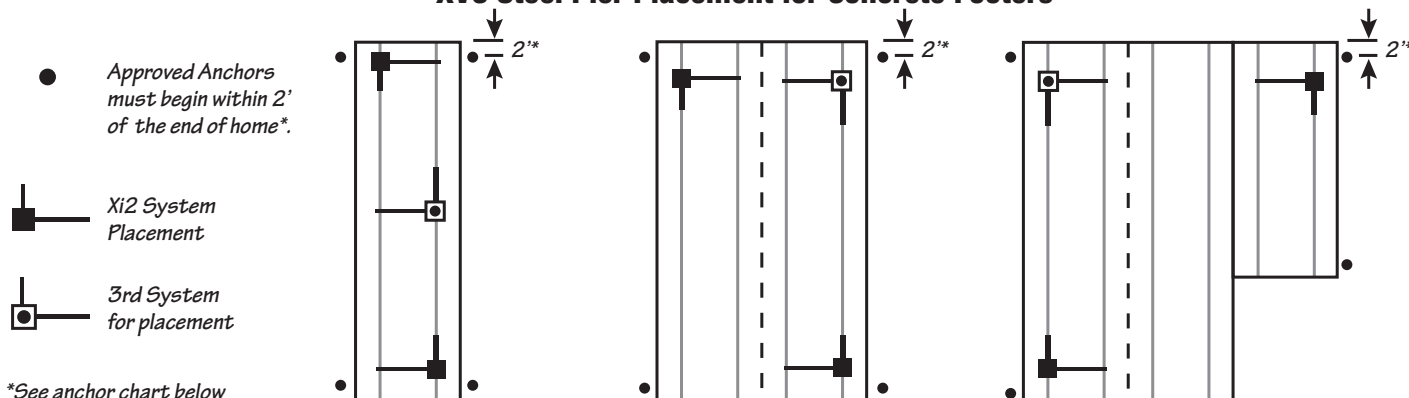


Online Concrete
Installation Manual

Instruction #08460 (D2041 - Rev. 9/12/25)

WARNING: This product can expose you to chemicals including Nickel, which is known to the State of California to cause cancer. For more information go to: www.P65Warnings.ca.gov

XVC Steel Pier Placement for Concrete Footers



Wind Zones I & II

Single Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Double Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Triple Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Wind Zones III

Single Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Double Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Triple Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Wind Zone I Uplift Anchors Chart

Home Section	Home Width	4:12		5:12		6:12-7:12	
		Home Length	Anchors Per Side	Home Length	Anchors Per Side	Home Length	Anchors Per Side
Single	12 ft. up to 140 in.	up to 63 ft.	3	up to 55 ft.	4	up to 45 ft.	4
		64 ft. to 90 ft.	4	56 ft. to 74 ft.	5	46 ft. to 62 ft.	5
				75 ft. to 90 ft.	6	63 ft. to 78 ft.	6
						79 ft. to 90 ft.	7
Double	14 ft.-18 ft. 156 in. to 210 in.	up to 73 ft.	3	up to 58 ft.	4	up to 47 ft.	4
		74 ft. to 90 ft.	4	59 ft. to 78 ft.	5	48 ft. to 64 ft.	5
				79 ft. to 90 ft.	6	65 ft. to 81 ft.	6
						82 ft. to 90'	7
Triple	20 ft. to 32 ft. 2 x 118 in. to 2 x 186 in. 20' (2 x 118 in.) 24 ft. to 32 ft. 2 x 140 in. to 2 x 186 in.	up to 90 ft.	2				
		up to 90 ft.	2				
				up to 90 ft.	3	up to 90 ft.	4
				up to 90 ft.	2	up to 90 ft.	3
Triple	36 ft. to 48 ft. 3 x 140 in. to 3 x 186 in.	up to 90 ft.	2	up to 90 ft.	2	up to 90 ft.	2

IMPORTANT: System Uplift Anchors are to be installed to the bottom of the rim joist with 3150lb. bracket and lag bolts, not I-beam. The corner anchors should be installed within 2' of the end of the home and any additional anchors installed as evenly as possible per side.

Note: In the event that the home has a solid foundation wall at the sidewall, instead of a bracket at the sidewall as described previously, the bracket can be relocated to a floor joist a maximum of 10" from the sidewall and connected with a vertical strap to a ground anchor, as long as the following limitations to the regular anchor spacings are observed.

Single Sections: 5/12 Max roof slope -add one bracket and anchor, evenly spaced per side.

7/12 Max roof slope -add two brackets/anchors evenly spaced per side.

Doubles and Triple sections – no additional anchors required.

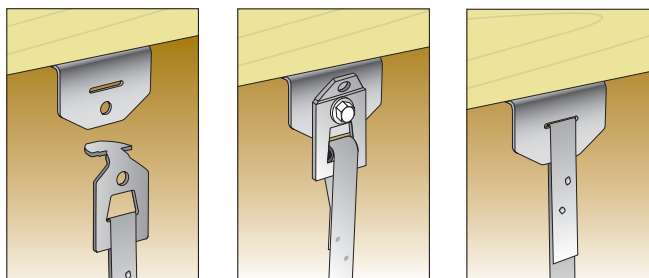
Alternative Concrete Footing Anchor method:

Anchors can be installed in the poured footings a minimum of 18" X 18" X 48" deep. (Check for local frost line depth requirements.) Required uplift anchors would be installed in the footings with straps installed vertically, replacing frame ties.

Uplift Rim Joist Bracket

Bracket attaches to the bottom of rim joist with (2) 1/2"-3.25" lag bolts with minimum 3" threads. Bracket can face inward or outward. Install lag bolts into 2 pre drilled 5/16" holes.

Strap can either be bolted with swivel to end of bracket, slid through swivel connector or through the slot in the bracket and crimped to fit. Strap angle must be 75 deg. to 90 deg.



XVC Steel Pier Foundation System for Concrete

Xi2-24 System Requirements for Roof Pitches Higher than 20 degrees

Additional Systems:

On a single section home, the 3rd system is placed in the middle of the home. When using 3 or 4 systems (double and triple sections), install on opposite corners. If needed, a 5th system would be in the center of the unit on either side.

Xi2 Longitudinal Stabilization for Wind Zones II & III

When using longitudinal stabilization only, in higher wind zones, Systems must be spaced as evenly as possible, no more than 10' from the end of the home. Longitudinal Struts DO NOT replace anchors on single section homes.

NOTE: On triple section homes in Wind Zones II & III an additional longitudinal system is required. It should be installed on the center section.

Length (Feet)	Wind Zone I				Wind Zone II				Wind Zone III			
	5:12	6:12	7:12	9:12	5:12	6:12	7:12	9:12	5:12	6:12	7:12	9:12
34	2	2	2	2	2	2	2	2	2	2	3	3
36	2	2	2	2	2	2	2	3	2	2	3	3
38	2	2	2	3	2	2	2	3	2	3	3	3
40	2	2	2	3	2	2	2	3	3	3	3	3
42	2	2	3	3	2	2	3	3	3	3	3	3
44	2	2	3	3	2	2	3	3	3	3	3	3
46	2	3	3	3	2	3	3	3	3	3	3	4
48	2	3	3	3	3	3	3	3	3	3	3	4
50	3	3	3	3	3	3	3	3	3	3	3	4
52	3	3	3	3	3	3	3	3	3	3	4	4
54	3	3	3	3	3	3	3	3	3	3	4	4
56	3	3	3	3	3	3	3	3	3	3	4	4
58	3	3	3	3	3	3	3	3	3	3	4	4
60	3	3	3	3	3	3	3	3	3	3	4	5
62	3	3	3	3	3	3	3	3	4	4	4	5
64	3	3	4	4	3	3	4	4	4	4	4	5
66	3	3	4	4	3	3	4	4	4	4	4	5
68	3	4	4	4	3	4	4	4	4	4	5	5
70	3	4	4	4	3	4	4	4	4	4	5	5
72	3	4	4	4	4	4	4	5	4	4	5	5
74	4	4	4	5	4	4	4	5	4	5	5	5
76	4	4	4	5	4	4	4	5	4	5	5	6
78	4	4	4	5	4	4	4	5	4	5	5	6
80	4	4	4	5	4	4	4	5	4	5	5	6

Fig. 3-1

Step 1

- Build footer according to State, Local, or Home Manufacturers guidelines.
- For Dry Set: drill two 1/2"x 3" deep holes in the concrete using holes in the lower tension bracket as a guide (13" apart) . Place nut & washer on anchor, leave enough room for 1 to 2 threads showing on top of bolt. Using a hammer, tap the wedge bolts into hole through bracket, leaving nut & washer flush with bracket. Using a 9/16" socket wrench, tighten wedge/anchor bolt, securing bracket to the concrete.

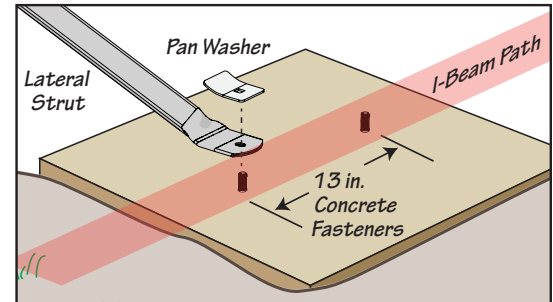


Fig. 3-2

Step 2

- Slide the end of the lateral strut over the outer most concrete anchor.
- Slide the pan washer over the concrete anchor and on top of the lateral strut as shown in Fig. 3-2.

Step 3

- Insert a u-bolt through the lower tension bracket.
- Slide both tension bracket/u-bolt over the two concrete anchors.
- Attach two flange nuts over the lower tension bracket and onto the two concrete anchors as shown right in Fig. 3-2

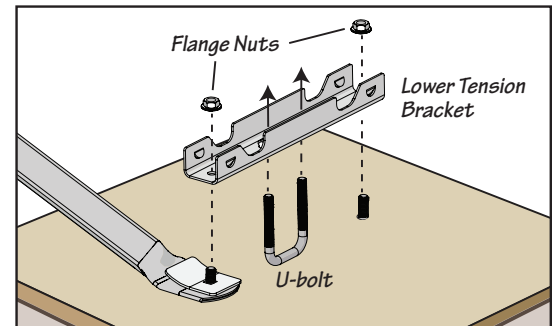


Fig. 3-3

Step 4

- Position the upper tension bracket just over the u-bolt aligning with the two hole in the center of the bracket.
- Slide the upper bracket over the u-bolt and in between the lower bracket as shown right in Fig. 3-4.
- Lightly attach two flange nuts over the u-bolt, do not tighten flange nuts.

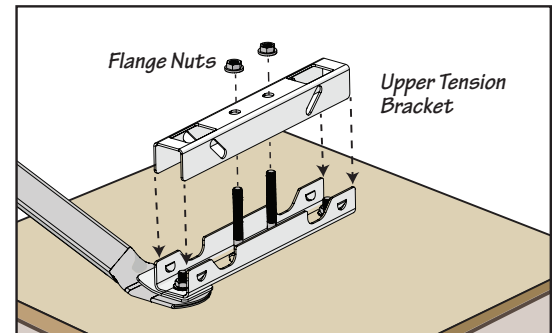


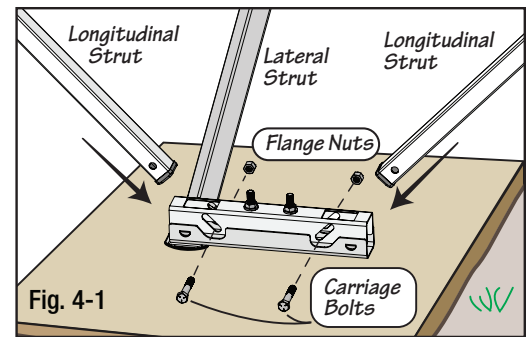
Fig. 3-4

Step 5 - Longitudinal Struts

- Insert the black end caps into the bottom end of two longitudinal struts.

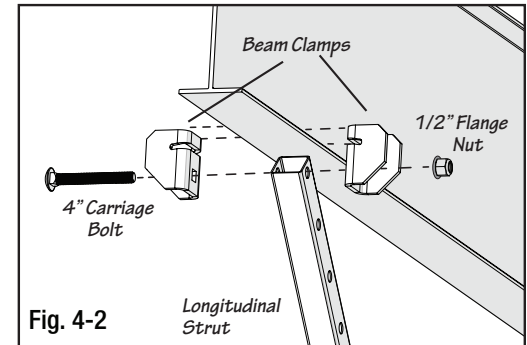
Step 6

- Insert longitudinal struts into the ends of the assembled tension bracket as shown in Fig. 4-1. The struts will hang loose.
- Insert a carriage bolt through one side of the tension bracket, passing the longitudinal strut out the opposite side of the tension bracket.
- Secure the carriage bolt in place with a flange nut. Firmly tighten the flange nut, do not over tighten.
- Repeat for opposite side longitudinal strut as shown in Fig. 4-1.



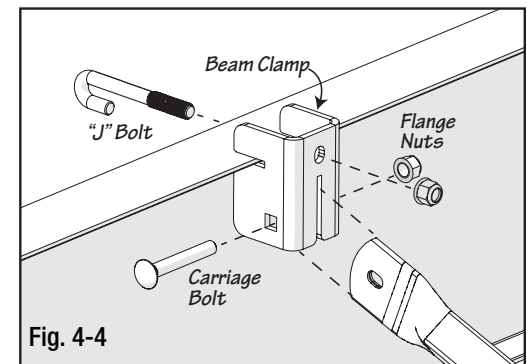
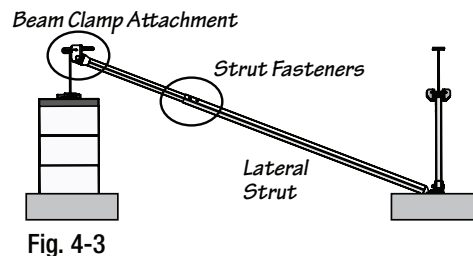
Step 7 - Longitudinal Beam Clamp

- Position two longitudinal beam clamps on both sides of the I-beam. The I-beam frame will slide into the slots on the clamps.
- Raise the longitudinal strut upward and position it between the two beam brackets as shown right in Fig. 4-2.
- Insert a 4" carriage bolt through the clamp, strut, and opposite clamp as shown right.
- Attach a flange nut to the carriage bolt.



Step 8 - Longitudinal Strut

- Pull the beam bracket assembly outward removing any loose slack between the beam clamp and base.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the beam clamp assembly.
Note: As the bolt/nut tighten, the two beam clamps will begin to crimp the I-beam frame.



Step 9 - Beam Clamp

- Extend the lateral strut outward to the opposite side I-beam as shown above.
NOTE: The fully extended strut must maintain a minimum 6" to 8" overlap between inner and outer tubes.
- Slide the "J" bolt over the I-beam and between the home frame.
- Slide the beam clamp over the "J" bolt end passing through the top of the beam clamp and slide the clamp over the I-beam frame as shown in Fig. 4-4. Attach flange nut over the "J" bolt and loosely tighten nut.
- Align/insert the lateral strut end in the mounting slot on the bottom of the beam clamp. As shown right in Fig. 4-4.
- Pass a carriage bolt through the beam clamp and lateral strut coming out the opposite side beam clamp. Loosely tighten flange nut. Do not fully tighten nut.
- Slide the assembled beam clamp with the mounted lateral strut left or right aligning the strut perpendicular to the XV pan/hardware.
- Once the beam clamp/strut attachment is in its final location, tighten the two flange nuts.

Step 10 - XV Base Final Tensioning

- Using a 3/4" deep socket/ impact driver, tighten the two flange nuts on top of the tension bracket, alternating between the two legs.
- As the flange nuts tighten, the upper tension bracket will compress downward into the lower tension bracket as shown in Fig 4-5 "A".
- Continue tightening while alternating the flange nuts until the upper bracket fully compresses into the lower tension bracket as shown in Fig. 4-5 "B"

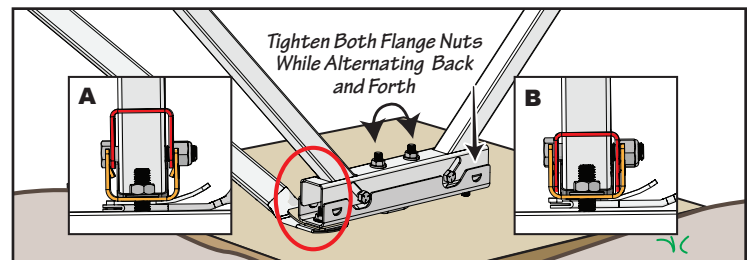


Fig. 4-5

Step 11 - Strut Fasteners

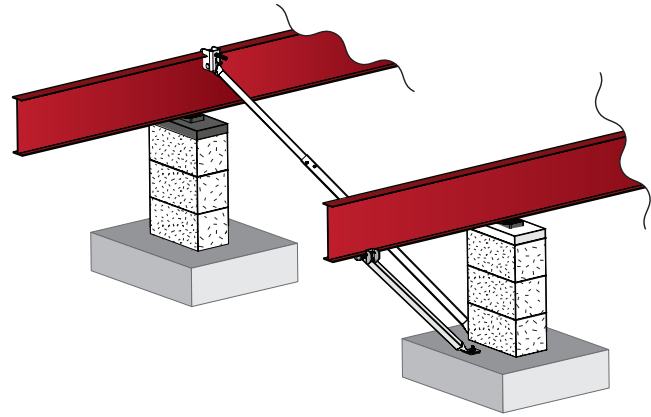
- Secure the extended lateral strut by mounting 4 self tapping screws in the 4 holes in the outer lateral tube as shown in Fig. 4-3. Attach two screws per side.

Xi2-24 Concrete Foundation System Installation Instructions for Wind Zone I, II & III Except Florida and California

Effective November 3, 2025

US Patent No.11,898,318

The Xi2-24 System Instructions use the lateral and longitudinal struts to replace normal lateral frame tie and longitudinal end tie anchorage and stabilizer plates. In addition the system requires a minimum amount of uplift anchors in Zone I for enhanced wind protection. Check zone charts for details



Installation Requirements

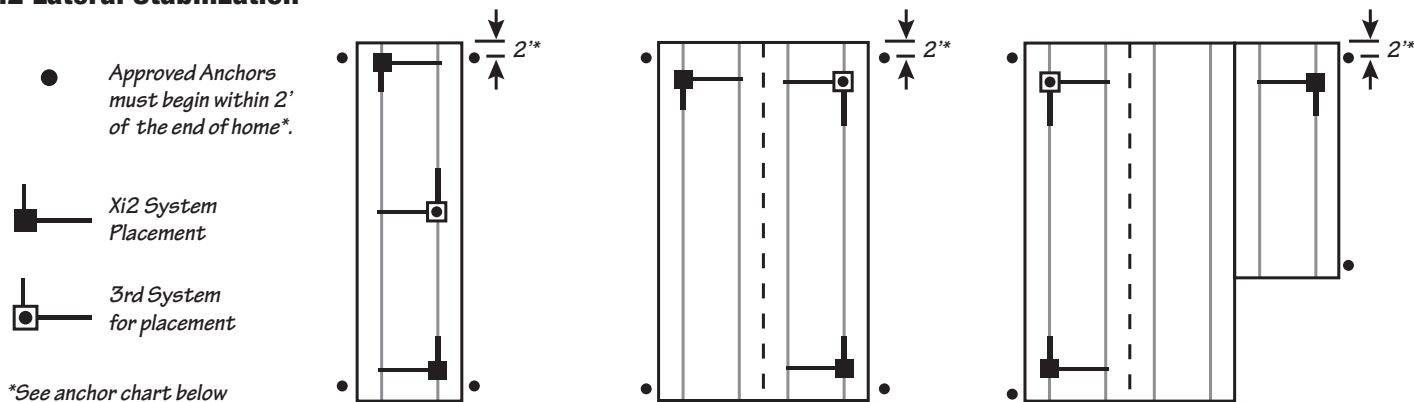
- Install in any type soil, 4B (175-275 lbs.) or better.
- Main rail spacing must be 75.5" – 99.5", 112" exception with proper strut.
- Maximum pier height at system 48", with 6" maximum rise from location of system to end of home. For all other piers use the home manufacturers set up instructions.
- Maximum vertical projection at sidewall is 9' wall and roof rim (9' wall and 12" eave). Higher walls may be used, when possible for design loads to be adjusted accordingly. For 10' walls, check with Tie Down.
- Longitudinal strut angle no more than 50 degrees and no less than 25 degrees. The longitudinal component of the Xi2 system replaces end frame ties. Check manufacturers requirements.
- For roof slopes greater than 20 degrees, (4.37" in 12" pitch) see page 3.
- Two systems designed to work with each other must be placed as evenly as possible. Measuring from the center of the block/pier, systems are to be placed a minimum of 2' to a recommended maximum of 10' (when needed may be a maximum of 1/4 the length of the home) from each end of home as shown on pier placement chart. Components of the Xi2 system such as the longitudinal strut and connecting hardware, may extend beyond pier location and can face in or out as long as both systems share the same direction, both either facing in or both facing out.
- This System only replaces normal lateral frame tie and or longitudinal end tie anchorage, with minimum uplift anchorage for Wind Zone I. Wind Zones II & III (100+ mph) require additional vertical sidewall anchorage for high wind areas. The home manufacturer may require additional vertical anchor ties that are unique to the home's design. These locations may include shear walls, marriage line ridge beam supports, and rim plates. Check the Manufacturers installation instructions for set-up requirements.
- **Footer Requirement:** Must be large enough for the pier load at that location and be a minimum of 22" wide by 6" deep with anchor wedge bolts a minimum of 4" from any edge or 18" wide by 12" deep with anchor wedge bolts a minimum of 1-1/2" from edge. Strip footings minimum of 18" wide by 14' long by 6" deep or 27" wide by 14' long by 4" deep.
- Poured concrete must be 2,500 PSI minimum at 28 days. Bottom of footers must be below the frost line or a minimum of 4" below finished grade. Check with authorities for local requirements (LAHJ).



Up To Date
Concrete
Installation Manual

Instruction #08462 (D2043 - Rev. 9/12/25)

Xi2 Lateral Stabilization



Wind Zones I & II

Single Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Double Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Triple Section Home

0 - 76' Box 2 Xi2 Systems
Over 76' Box 3 Xi2 Systems

Wind Zones III

Single Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Double Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Triple Section Home

0 - 64' Box 2 Xi2 Systems
Over 64' Box 3 Xi2 Systems

Wind Zone I Uplift Anchors Chart

Home Section	Home Width	4:12		5:12		6:12-7:12	
		Home Length	Anchors Per Side	Home Length	Anchors Per Side	Home Length	Anchors Per Side
Single	12 ft. up to 140 in.	up to 63 ft.	3	up to 55 ft.	4	up to 45 ft.	4
		64 ft. to 90 ft.	4	56 ft. to 74 ft.	5	46 ft. to 62 ft.	5
				75 ft. to 90 ft.	6	63 ft. to 78 ft.	6
						79 ft. to 90 ft.	7
Double	14 ft.-18 ft. 156 in. to 210 in.	up to 73 ft.	3	up to 58 ft.	4	up to 47 ft.	4
		74 ft. to 90 ft.	4	59 ft. to 78 ft.	5	48 ft. to 64 ft.	5
				79 ft. to 90 ft.	6	65 ft. to 81 ft.	6
						82 ft. to 90'	7
Triple	20 ft. to 32 ft. 2 x 118 in. to 2 x 186 in. 20' (2 x 118 in.) 24 ft. to 32 ft. 2 x 140 in. to 2 x 186 in.	up to 90 ft.	2				
		up to 90 ft.	2				
				up to 90 ft.	3	up to 90 ft.	4
				up to 90 ft.	2	up to 90 ft.	3
Triple	36 ft. to 48 ft. 3 x 140 in. to 3 x 186 in.	up to 90 ft.	2	up to 90 ft.	2	up to 90 ft.	2

IMPORTANT: System Uplift Anchors are to be installed to the bottom of the rim joist with 3150lb. bracket and lag bolts, not I-beam. The corner anchors should be installed within 2' of the end of the home and any additional anchors installed as evenly as possible per side.

Note: In the event that the home has a solid foundation wall at the sidewall, instead of a bracket at the sidewall as described previously, the bracket can be relocated to a floor joist a maximum of 10" from the sidewall and connected with a vertical strap to a ground anchor, as long as the following limitations to the regular anchor spacings are observed.

Single Sections: 5/12 Max roof slope -add one bracket and anchor, evenly spaced per side.

7/12 Max roof slope -add two brackets/anchors evenly spaced per side.

Doubles and Triple sections – no additional anchors required.

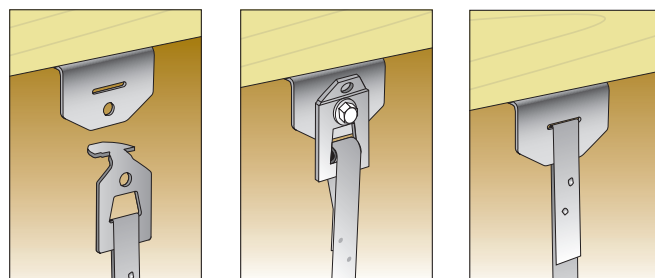
Alternative Concrete Footing Anchor method:

Anchors can be installed in the poured footings a minimum of 18" X 18" X 48" deep. (Check for local frost line depth requirements.) Required uplift anchors would be installed in the footings with straps installed vertically, replacing frame ties.

Uplift Rim Joist Bracket

Bracket attaches to the bottom of rim joist with (2) 1/2"-3.25" lag bolts with minimum 3" threads. Bracket can face inward or outward. Install lag bolts into 2 pre drilled 5/16" holes.

Strap can either be bolted with swivel to end of bracket, slid through swivel connector or through the slot in the bracket and crimped to fit. Strap angle must be 75 deg. to 90 deg.



Xi2-24 System Requirements for Roof Pitches Higher than 20 degrees

Additional Systems:

On a single section home, the 3rd system is placed in the middle of the home. When using 3 or 4 systems (double and triple sections), install on opposite corners. If needed, a 5th system would be in the center of the unit on either side.

Xi2 Longitudinal Stabilization for Wind Zones II & III

When using longitudinal stabilization only, in higher wind zones, Systems must be spaced as evenly as possible, no more than 10' from the end of the home. Longitudinal Struts DO NOT replace anchors on single section homes.

NOTE: (2) Longitudinal struts required on each end for Wind Zones II & III.

NOTE: On triple section homes in Wind Zones II & III an additional longitudinal system is required. It should be installed on the center section.

Length (Feet)	Wind Zone I				Wind Zone II				Wind Zone III			
	5:12	6:12	7:12	9:12	5:12	6:12	7:12	9:12	5:12	6:12	7:12	9:12
34	2	2	2	2	2	2	2	2	2	2	3	3
36	2	2	2	2	2	2	2	3	2	2	3	3
38	2	2	2	3	2	2	2	3	2	3	3	3
40	2	2	2	3	2	2	2	3	3	3	3	3
42	2	2	3	3	2	2	3	3	3	3	3	3
44	2	2	3	3	2	2	3	3	3	3	3	3
46	2	3	3	3	2	3	3	3	3	3	3	4
48	2	3	3	3	3	3	3	3	3	3	3	4
50	3	3	3	3	3	3	3	3	3	3	3	4
52	3	3	3	3	3	3	3	3	3	3	4	4
54	3	3	3	3	3	3	3	3	3	3	4	4
56	3	3	3	3	3	3	3	3	3	3	4	4
58	3	3	3	3	3	3	3	3	3	3	4	4
60	3	3	3	3	3	3	3	3	3	3	4	5
62	3	3	3	3	3	3	3	3	4	4	4	5
64	3	3	4	4	3	3	4	4	4	4	4	5
66	3	3	4	4	3	3	4	4	4	4	4	5
68	3	4	4	4	3	4	4	4	4	4	5	5
70	3	4	4	4	3	4	4	4	4	4	5	5
72	3	4	4	4	4	4	4	5	4	4	5	5
74	4	4	4	5	4	4	4	5	4	5	5	5
76	4	4	4	5	4	4	4	5	4	5	5	6
78	4	4	4	5	4	4	4	5	4	5	5	6
80	4	4	4	5	4	4	4	5	4	5	5	6

Xi2-24 Foundation System Installation for Concrete

Step 1 – Concrete Footer

- Build footer according to State Local, or Home Manufacturer's guidelines.
- For Dry Set:** Depending on depth of footer, measure 1 1/2" from edge or 4" from edge of footer and drill a 1/2" x 3" hole on the side of the block under the beam for longitudinal and a hole at the end of the block for the lateral going across to the other beam. Place a nut and washer on the very top of anchor wedge bolt leaving no threads showing. Using a hammer, tap the bolts until snug in the hole, remove nut and washer and attach strut and pan washer to anchor bolt, followed by the washer and nut. Tighten wedge bolt to slab.

Note: Once the wedge bolts are set, proceed with standard installation steps.

- For Wet Set:** Follow steps for dry set except instead of drilling a hole in the footing insert the J bolt into the wet concrete up to the bottom of the threads at the proper placement and allow to dry.

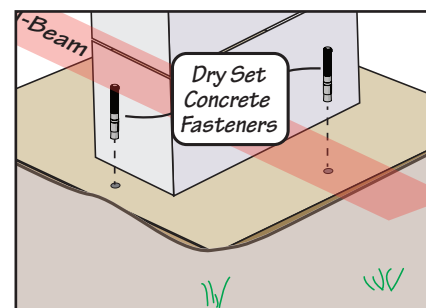


Fig. 3-2

Step 2 – Longitudinal Beam Strut Attachment

- Position Longitudinal beam clamps on both sides of the I-beam. The I-beam frame will slide into the slot on the clamp
- Extend the top of the longitudinal strut (smaller, pressed flat) upward and position it between the two beam brackets as shown in Fig.3-3
Note: The fully extended longitudinal strut must maintain a minimum of 6" to 8" overlap between inner and outer tubes.
- Insert a 4" carriage bolt into the bracket and insert the spacers on each side of the strut before sliding bolt all the way through.
- Attach a flange nut to the carriage bolt. **Note:** The two "loose" beam clamps will appear to be out of alignment with the frame.
- Do Not tighten beam clamps.

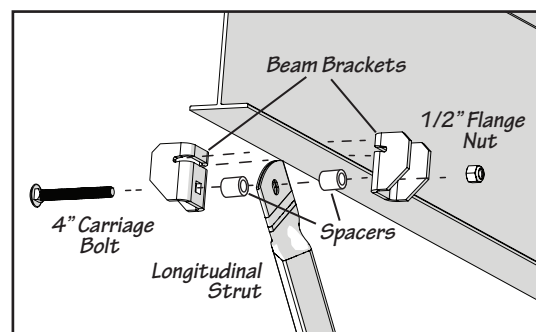


Fig. 3-3

Step 3 – Longitudinal Base Strut Attachment

- Slide the bottom of the longitudinal strut (larger, bent end) over the concrete wedge bolt on the footer.
- Slide a pan washer over the wedge bolt and install a flange nut over the wedge bolt as shown right in Fig.4-1
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the footer.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the beam clamp.

Step 4 – Strut Fasteners

- Secure the extended Longitudinal Strut by installing 4 self tapping screws in the 4 holes in the outer longitudinal tube as shown in Fig 4-4. Attach 2 screws per side.

Step 5 - Longitudinal Strut

- Slide the end of the longitudinal strut over the wedge bolt on the footer.
- Slide a pan washer over the wedge bolt, install a flange nut over the wedge bolt as show right in Fig. 4-1
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the footer.
- Pull outward on the longitudinal beam clamp removing any slack between the clamp and ground pad.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the beam clamp.

Note: As the bolt/nut tighten, the two beam clamps will begin to crimp the I-beam.

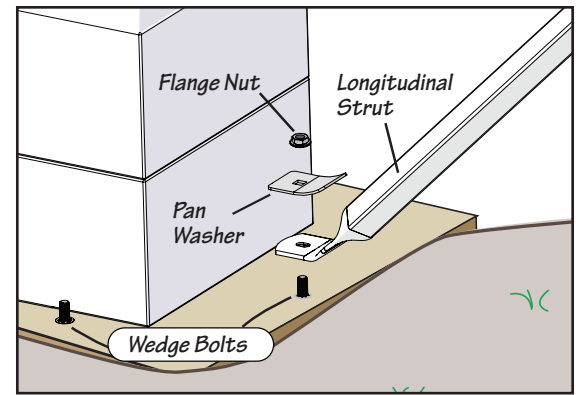


Fig. 4-1

Step 6 - Lateral Strut Beam Attachment

- Extend the lateral strut outward to the opposite side I-beam.
NOTE: The fully extended strut must maintain a minimum 6" to 8" overlap between inner and outer tubes.
- Slide the "J" bolt over the I-beam and between the home frame.
- Slide the beam clamp over the "J" bolt end passing through the top of the beam clamp and slide the clamp over the i-beam frame as shown in Fig. 4-2. Attach flange nut over the "J" bolt and loosely tighten nut.
- Align/insert the lateral strut end in the mounting slot on the bottom of the beam clamp as shown in Fig. 4-2.
- Pass a carriage bolt through the beam clamp and lateral strut coming out the opposite side beam clamp. Loosely tighten flange nut. Do not tighten nut.
- Slide the assembled beam clamp with the mounted lateral strut left or right aligning the strut perpendicular to the pad.
- Once the beam clamp/strut attachment is in its final location, tighten the two flange nuts.

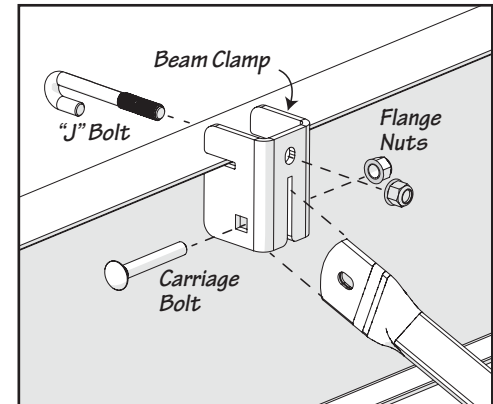


Fig. 4-2

Step 7 - Lateral Strut Base Attachment

- Slide the end of the lateral strut over the carriage bolt on the ground pad.
- Slide a pan washer over the carriage bolt/lateral strut, install a flange nut over the carriage bolt as show right in Fig. 4-3.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the ground pad.
- Using a 3/4" deep socket/impact driver, tighten the flange nut on the beam clamp.

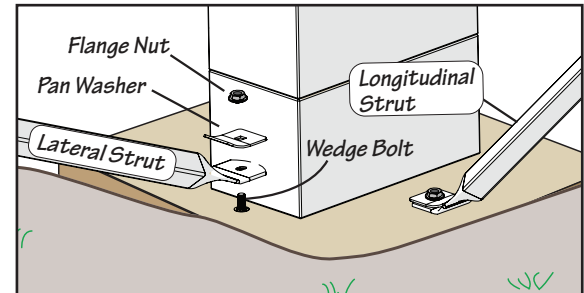


Fig. 4-3

Step 8 - Strut Fasteners

- Secure the extended lateral strut by mounting 4 self tapping screws in the 4 holes in the outer lateral tube as shown in Fig. 4-4. Attach two screws per side.

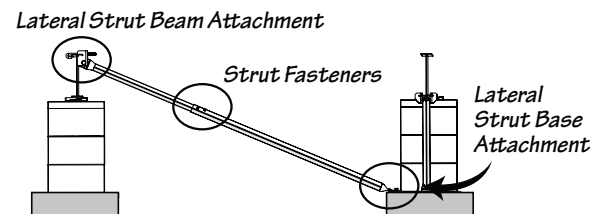


Fig. 4-4