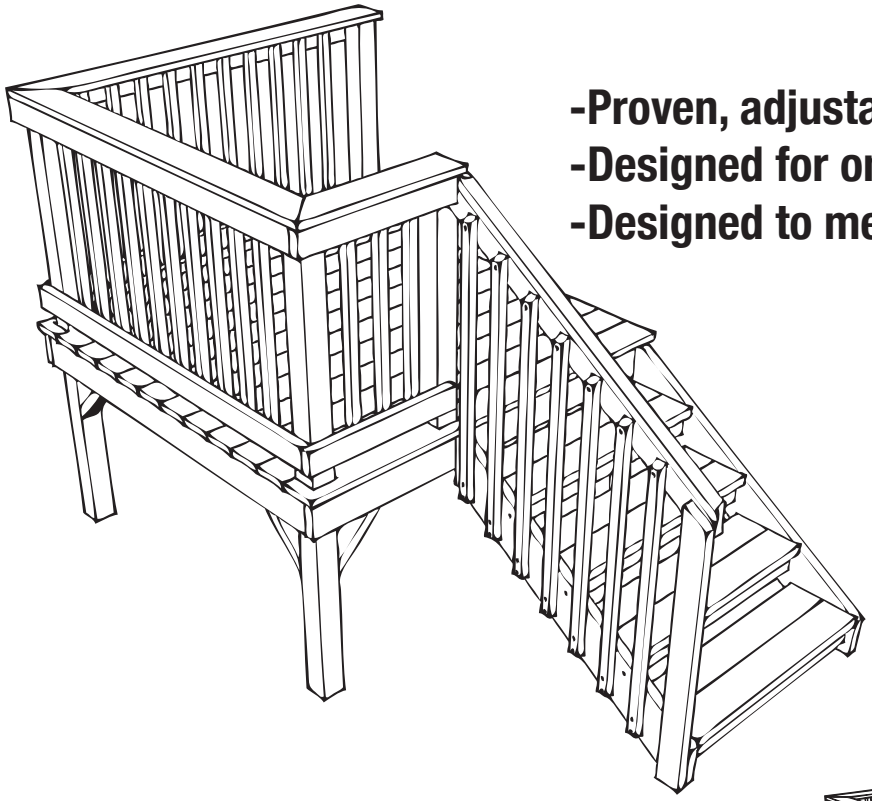
StairLok®
STRUCTURAL STAIR SYSTEM

Just-Add-Wood!

Stair System + Hardware and Plans for 3 Sizes of Free-Standing Decks

Includes:
- Pre-built stair treads
- Stair stringers -2
- Stair handrail - 1
- Stair 2x4 baluster - 1
- Stair balusters - 7
- 2x3 wood braces - 8
- Hardware package for the stair system
- Hardware package for the deck, up to 65½"x65½"
- Tips (S2, T25)



-Proven, adjustable stair system
-Designed for on-site speed
-Designed to meet code

4x4 (43½" x 43½")

Redwood	Qty.
2x6x8'	8
2x4x8'	2
4x4x8'	4
2x2x36"	12

(SHOPPING LISTS)

4x6 (43½" x 65½")

Redwood	Qty.
2x6x8'	7
2x6x12'	3
2x4x12'	1
2x4x8'	1
4x4x8'	4
2x2x36"	17

6x6 (65½" x 65½")

Redwood	Qty.
2x6x8'	1
2x6x12'	10
2x4x8'	4
4x4x8'	4
2x2x36"	25

You "Just Add Wood!"

Just-Add-Wood System

After **25 years** of providing Quickporch free-standing wood deck systems to manufactured housing in Colorado and the West, we have taken the engine to our successful whole-deck kits - **the stair system** - and made it more accessible and adaptable in order to serve the needs of North America.

Just-Add-Wood!

Stair system + Hardware and plans for 3 sizes of decks

The best and easiest wood stair system on the market

A proven, adjustable design that can adapt to your site and deliver the **consistent rise and run** required for each site to meet and exceed the IRC Code. *

Available in 3-, 4-, and 5- tread systems, optimized for manufactured housing

Graspable, reversable molded stair handrail

The **closed riser** is integrated to the tread, making it one of the strongest, safest, most accurate exterior stairs available.

Top-view plans and basic instructions for three **popular sizes**:

4x4 (43½" x 43½")

4x6 (43½" x 65½")

6x6 (65½" x 65½")

To maximize **on-site speed,** each deck is sized to use only full (un-ripped) deck boards. Only the outside deck boards should need to be notched for posts.

Buy and cut lists for all three sizes, plus a **quality hardware** set that builds up to the 6x6 (65½" x 65½"). Expansion Packs are available for decks up to 10x12 (115½" x 138½").

Deluxe rail design, which can be economized by:
- eliminating decking at top of deck rail
- eliminating lower guard rail by making decking flush to perimeter (maintain a ¾" lip at the stair), then face-mounting longer balusters to the rim joists

*Building code varies by location and inspector; it is the **builder's repsonsibility** to know and meet code.

43½" x 43½" Deck

BUY LIST

Redwood	Qty.	Materials Cost
2x6x8'	8	$_____/ea. = _____
2x4x8'	2	$_____/ea. = _____
4x4x8'	4	$_____/ea. = _____
2x2x36" (OR 8'	12 4)	$_____/ea. = _____
		SUBTOTAL: $ _____

CUT LIST

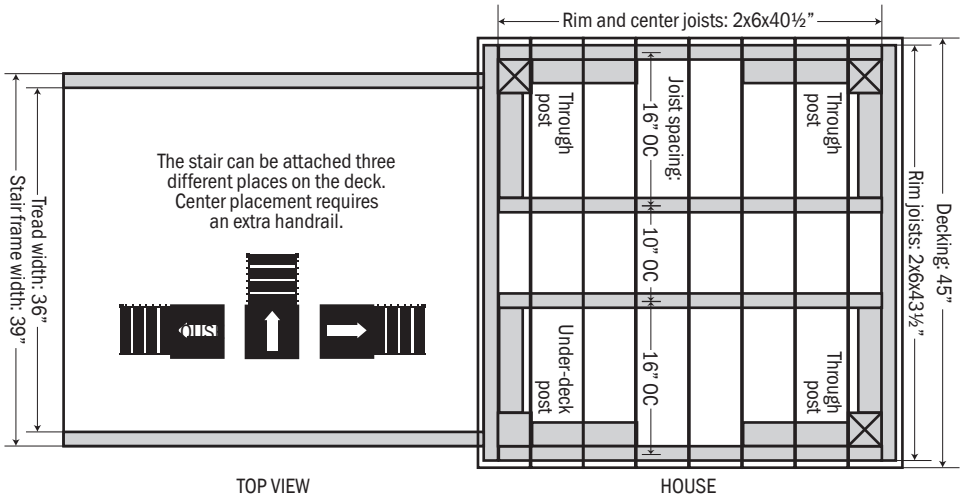
Cut from	Cut to	Qty.	Use
2x6x8'	43½"+	2	Top of deck rail (45º cuts)
	45"	8	Decking
	43½"	2	Rim joists (with hangers)
	40½"	2	Rim joists (sides)
	40½"	2	Center joists
2x4x8'	42"	4	Guardrail
4x4x8'	Height*	3	Posts - through
	Height	1	Post - framing under deck (yields extra half-post)
2x2x32" min.*		12	Deck rail balusters

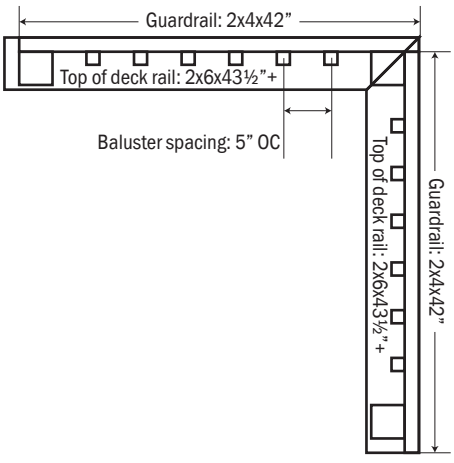
***Through post height**
After temporarily supporting and leveling the frame in place, measure down from the top of the rim joist to the post location and add 37" for 32" balusters, which will produce a 37" rail (or add 42" for 36" balusters, which makes a 42" guardrail). See the diagram on page 7.

DECK HARDWARE

In order of use	Qty.	Hardware
Rim corners	8	3" screws
Joists	4	Joist hangers
	40	1¼" screws
Posts	12	4" construction screws
Braces	8	2x3 wood braces
	28	3" screws
Decking	64	3" screws
Guardrail	8	4" construction screws
Balusters	51	2½" screws
Top of deck rail	12	3" screws

(For details on how to use hardware, see Deck Construction Details, pages 6-7.)





43½” x 65½” Deck

StairLok® STRUCTURAL STAIR SYSTEM

4

BUY LIST

Redwood	Qty.	Materials Cost
2x6x8’	7	$_____/ea. = _____
2x6x12’	3	$_____/ea. = _____
2x4x12’	1	$_____/ea. = _____
2x4x8’	1	$_____/ea. = _____
4x4x8’	4	$_____/ea. = _____
2x2x36” (OR 8’	17 6)	$_____/ea. = _____
		SUBTOTAL: $ _____

CUT LIST

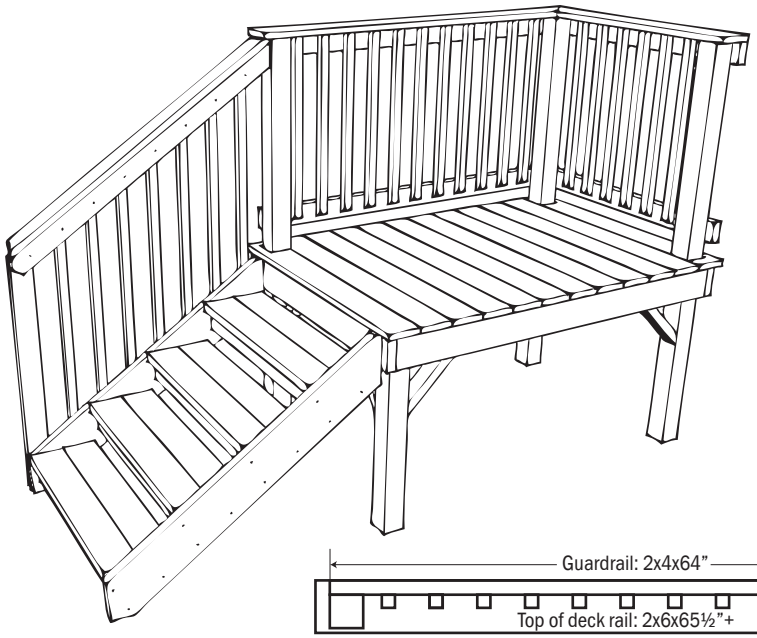
Cut from	Cut to	Qty.	Use
2x6x12’	65½”+	1	Top of deck rail (45º cut)
	43½”+	1	Top of deck rail (45º cut)
2x6x8’	45”+	12	Decking
	43½”	2	Rim joists (with hangers)
2x6x12’	62½”	2	Rim joists (sides)
	62½”	2	Center joists
2x4x12’	64”	2	Guardrail
2x4x8’	42”	2	Guardrail
4x4x8’	Height*	3	Posts - through
	Height	1	Post - framing under deck (yields extra half-post)
2x2x32” min.*		17	Deck rail balusters

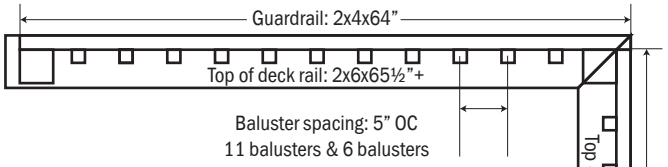
***Through post height**
After temporarily supporting and leveling the frame in place, measure down from the top of the rim joist to the post location and add 37” for 32” balusters, which will produce a 37” rail (or add 42” for 36” balusters, which makes a 42” guardrail). See the diagram on page 7.

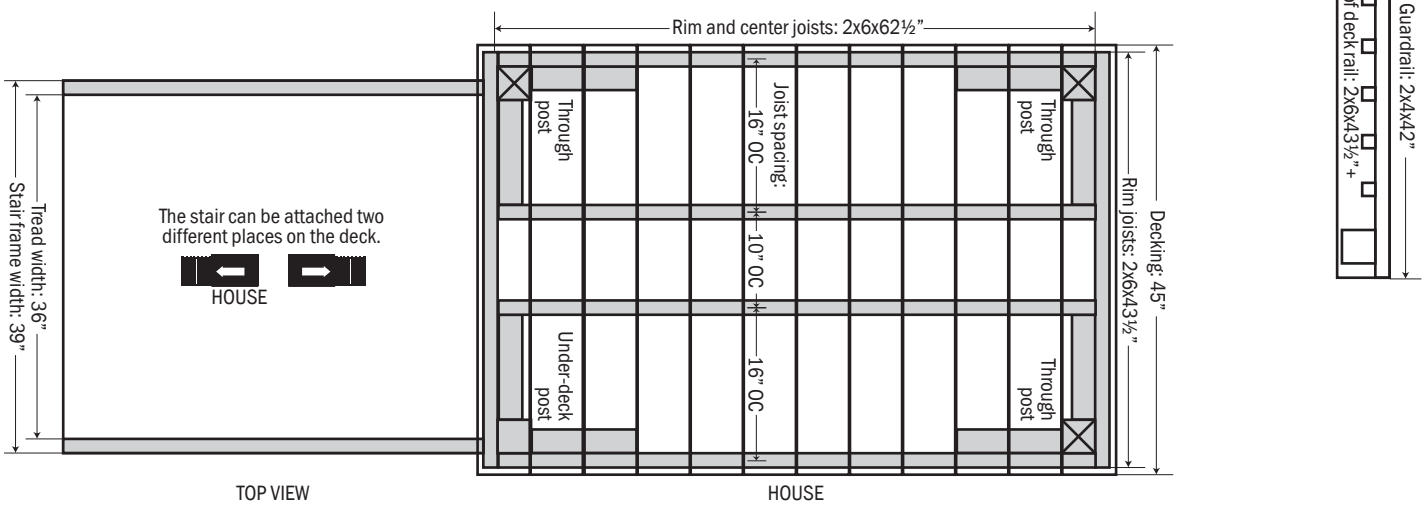
DECK HARDWARE

In order of use	Qty.	Hardware
Rim corners	8	3” screws
Joists	4	Joist hangers
	40	1¼” screws
Posts	12	4” construction screws
Braces	8	2x3 wood braces
	28	3” screws
Decking	96	3” screws
Guardrail	8	4” construction screws
Balusters	51	2½” screws
Top of deck rail	12	3” screws

(For details on how to use hardware, see Deck Construction Details, pages 6-7.)







65½” x 65½” Deck

BUY LIST

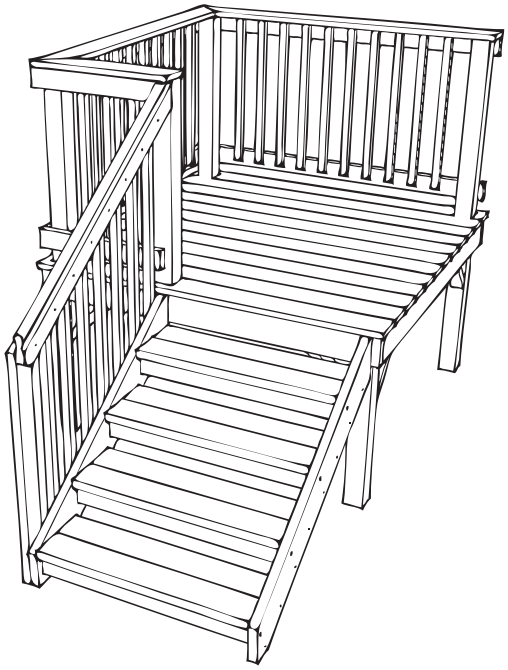
Redwood	Qty.
2x6x8’	1
$_____ /ea. = _____	
2x6x12’	10
$_____ /ea. = _____	
2x4x8’	4
$_____ /ea. = _____	
4x4x8’	4
$_____ /ea. = _____	
2x2x36”	25
(OR 8’	9)
$_____ /ea. = _____	

SUBTOTAL: $ _____

CUT LIST

Cut from	Cut to	Qty.	Use
2x6x8’	26½”+	1	Top of deck rail (45º cut)
	65½”+	1	Top of deck rail (45º cut)
2x6x12’	65½”+	1	Top of deck rail (45º cuts)
	67”	12	Decking
	65½”	2	Rim joists (with hangers)
	62½”	2	Rim joists (sides)
	62½”	3	Center joists
2x4x8’	64”	4	Guardrail
	25”	2	Guardrail
4x4x8’	Height*	3	Posts - through
	Height	1	Post - railing
	Height	1	Post - framing under deck
2x2x32” min.*		25	Deck rail balusters

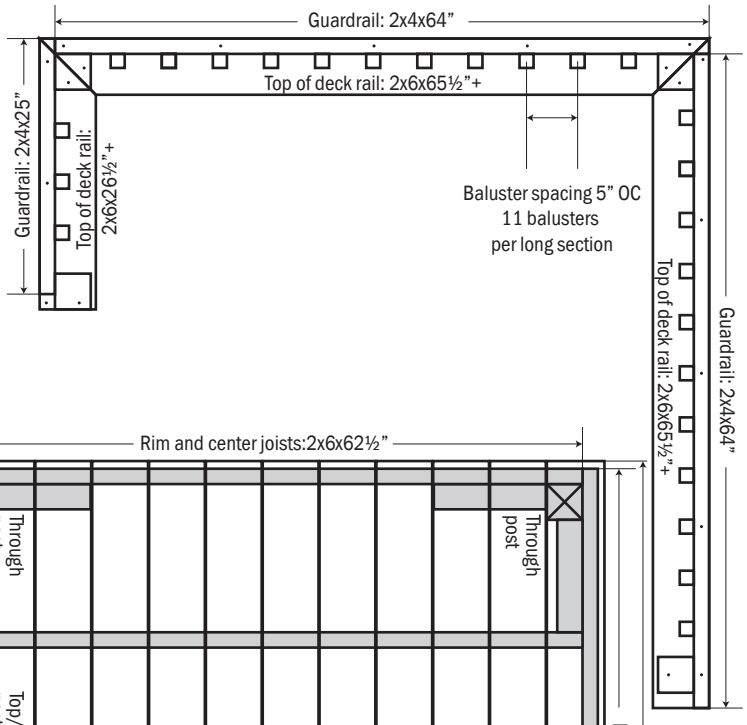
*See “Through post height” note page 7

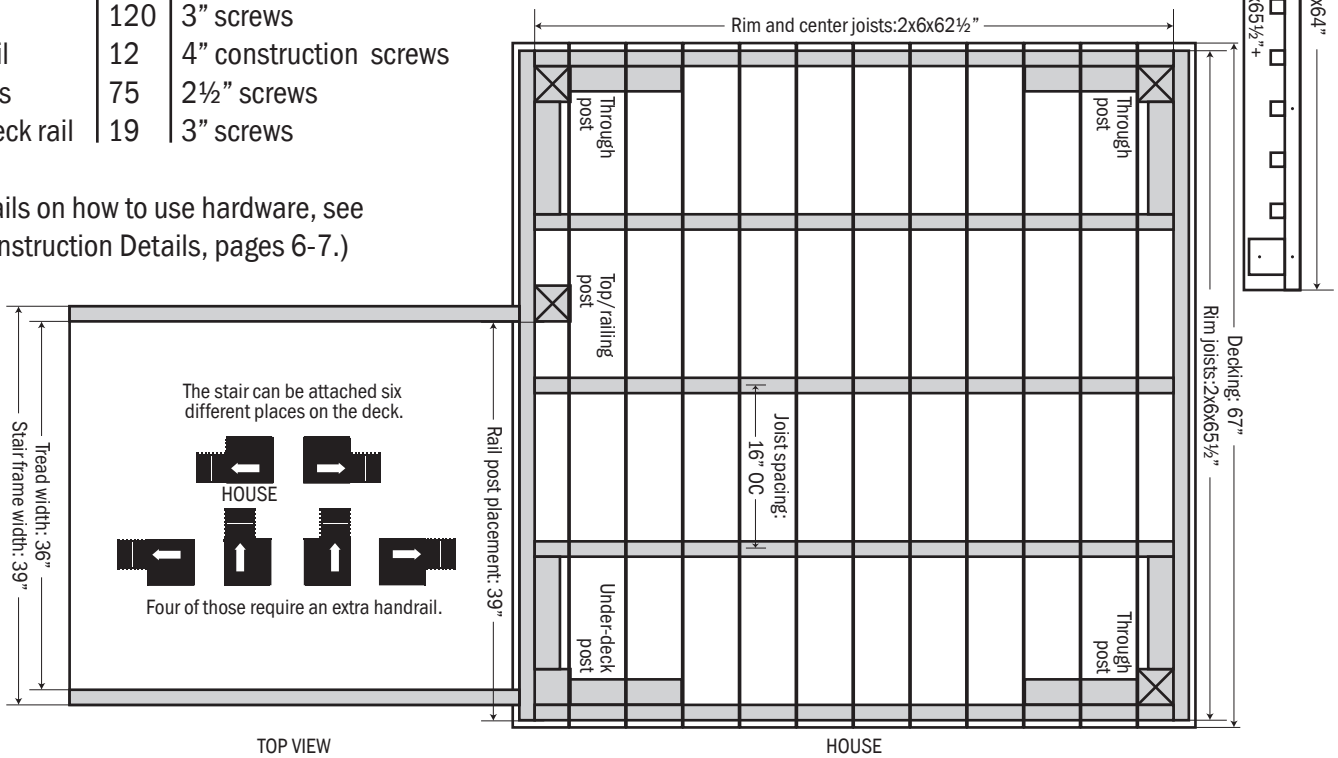


DECK HARDWARE

In order of use	Qty.	Hardware
Rim corners	8	3” screws
Joists	6	Joist hangers
	60	1¼” screws
Posts	15	4” construction screws
Braces	8	2x3 wood braces
	28	3” screws
Decking	120	3” screws
Guardrail	12	4” construction screws
Balusters	75	2½” screws
Top of deck rail	19	3” screws

(For details on how to use hardware, see Deck Construction Details, pages 6-7.)



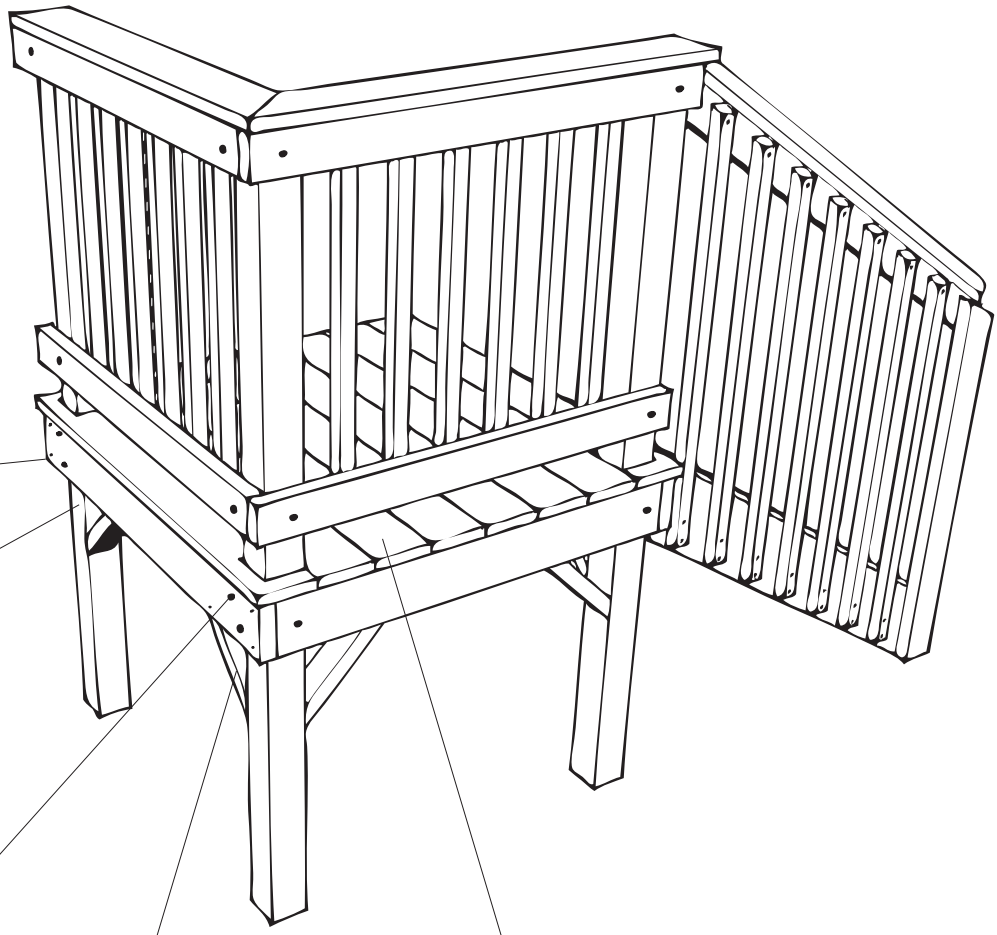


Deck Construction Details

1. Frame

-Attach the rim (side) joists with two 3” screws at each of the four corners.
-Attach center joists according to top view plan with provided joist hangers and nails.
-Then temporarily attach this frame 1½” below the desired decking height by screwing it to the house below the door. Prop up the outside and level side-to-side.

3” screw
x2 per corner



2. Through post height

After temporarily supporting and leveling the frame in place, measure down from the top of the rim joist to the post location and add 37” for 32” balusters, which will produce a 37” rail. (or add 42” for 36” balusters, which makes a 42” guardrail).

3. Attach corner posts

Attach each corner post through the rim (side) joists with three 4” construction screws:
- two through the rim joist with joist hangers, staggered
- one from the other rim joist, centered

4” construction screw
x3 per post

NOTE: Building code requires a concrete or improved surface for posts.

(For 65½” decks, see the note about stair-rail deck posts on the next page.)

4. Braces

At each corner, first place the brace that goes between the post and the center joist (assumes 16” OC spacing) using two 3” screws into the post, and two more into the center joist.

Place the second brace so that the bottoms of the braces are even with each other, using two 3” screws into the post and one through the rim joist.

3” screw
x7 per set of braces

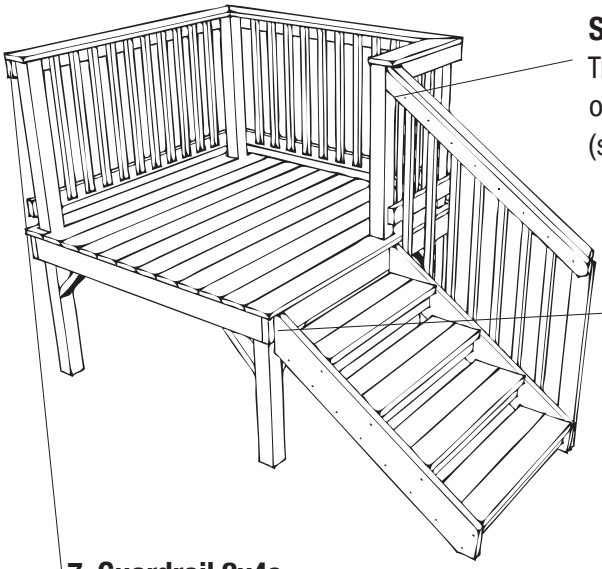
5. Deck Boards

Deck is sized to use full (un-ripped) deck boards. Only the outside deck boards should need to be notched for posts; notch 3¾” wide by 3½” deep. The inside deck boards next to the posts should touch the posts.

Deck boards should over-hang the framing by about ⅝ - ¾” on all sides. Use two 3” screws per joist connection per deck board.

The spacing between deck boards should range from 1/16” - ¼” depending on the width of deck boards.

3” screw
x2 per joist connection



Stair-rail deck post (for 65½" decks only)

This post should be flush with the inside of the stair handrail. The inside of the stair-rail deck post should be 39" from the outside of the frame (see top view). Attach with three 4" construction screws, staggered.

4" construction screw x3 at stair-rail deck post

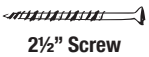
6. Stair Connection

Attaching the stair before beginning the railing makes it easier to access the top of the deck. The outside of the stair stringer is meant to attach 1½" from the outside of the frame on the house side (see pages 8-10).

7. Guardrail 2x4s

Align top guardrail 2x4s with the tops of the posts.
Tip: use 4x4 (3½") cutoffs to set the bottom guardrail.
On the side of the railing opposite the stair, guardrail 2x4s start in line with the rim joist, 1½" beyond the post.
Refer to top view for guardrail placement.
Guardrail 2x4s should be installed with 4" construction screws.

4" construction screw x4 per rail section (one per corner)



2½" Screw x3 per Baluster

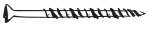
8. Decking at top of deck railing

Cut to be flush or slightly beyond rail posts.
Refer to top view for cuts and screw patterns.
Attach with 3" screws.

3" screws

9. Deck rail balusters

Balusters should be spaced 5" OC, symmetrically.
Attach each balusters with three 2½" screws (two at the top, one at the bottom).



2½" Screw x3 per Baluster

10. Stair railing

See Stair Railing, page 11.

***Through Post Height**
After temporarily supporting and leveling the frame in place, measure down from the top of the rim joist to the post location and add 37" for 32" balusters, which will produce a 37" rail (or add 42" for 36" balusters, which makes a 42" guardrail).

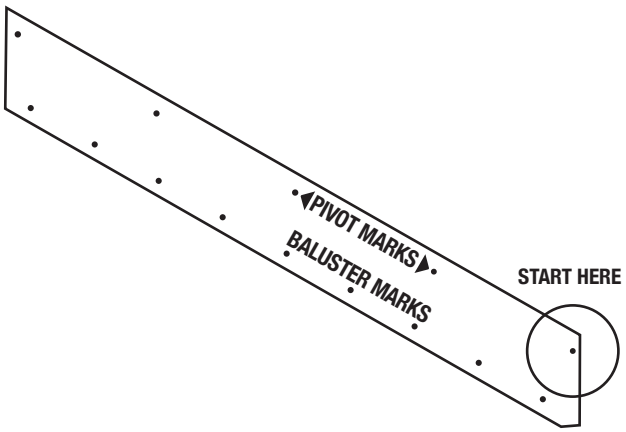
Building the Stair

The **StairLok® adjustable stair** is a new approach to an old problem. The StairLok® stair has developed and improved over the years, especially since 2011 with our proprietary tread hardware and **StairLok® Stair Template**. Pay careful attention to these instructions if this is your first StairLok® stair. After that, you probably only need the Stair Template.

Before you start laying out your stair stringers, determine your RISE per TREAD. Visit the Stair Numbers section on the **back cover**.

The StairLok® stair assembly is based on pre-punched marks. Each side of each stair stringer is punched with two rows of punch marks:
1. One row of **PIVOT MARKS** for attaching stair treads
2. Another row for attaching balusters

The stringers have both types of marks on each side, allowing you to choose the more attractive sides to face out.

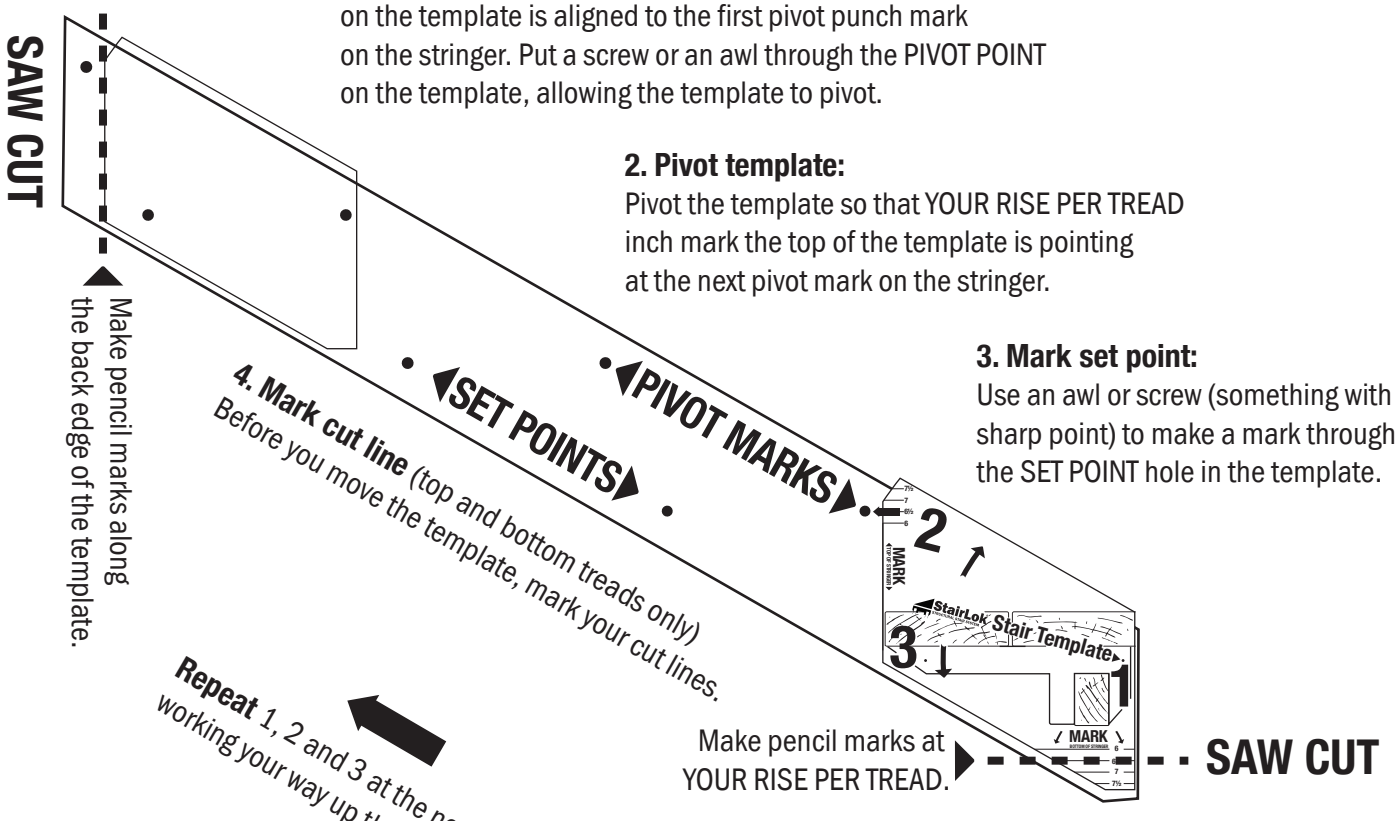


HOW TO USE THE STAIRLOK® STAIR TEMPLATE:

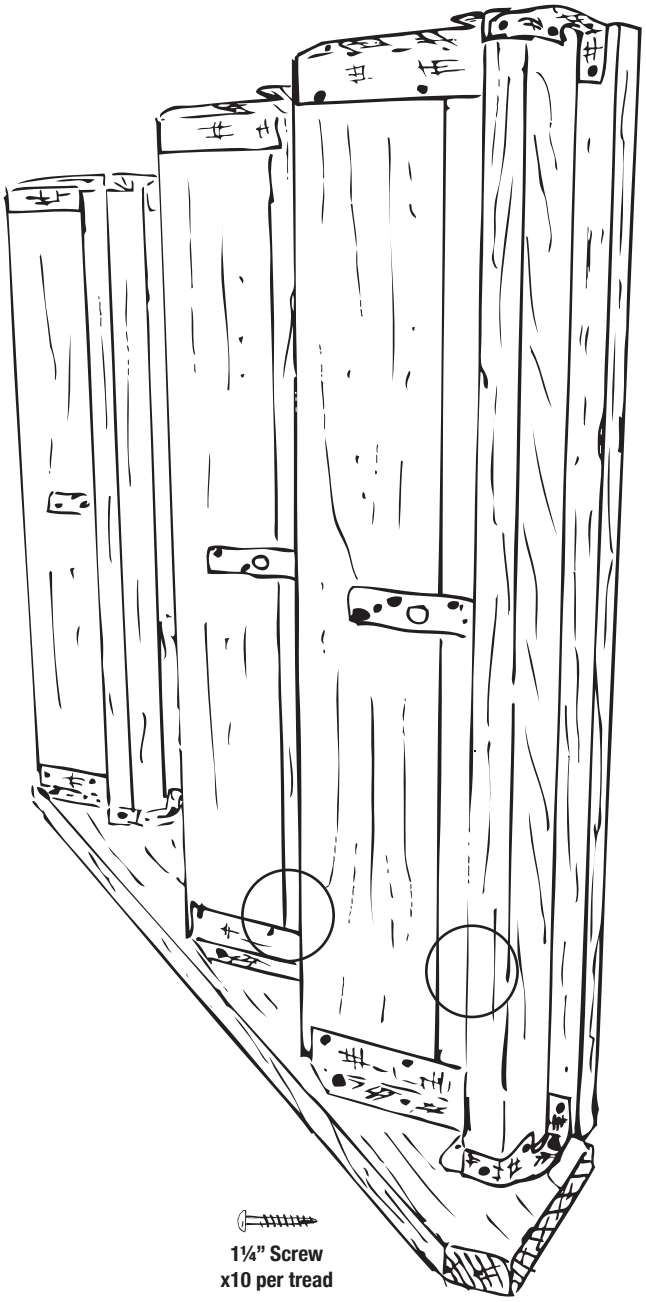
1. Align pivot point:
Place the template on the stringer so that the PIVOT POINT on the template is aligned to the first pivot punch mark on the stringer. Put a screw or an awl through the PIVOT POINT on the template, allowing the template to pivot.

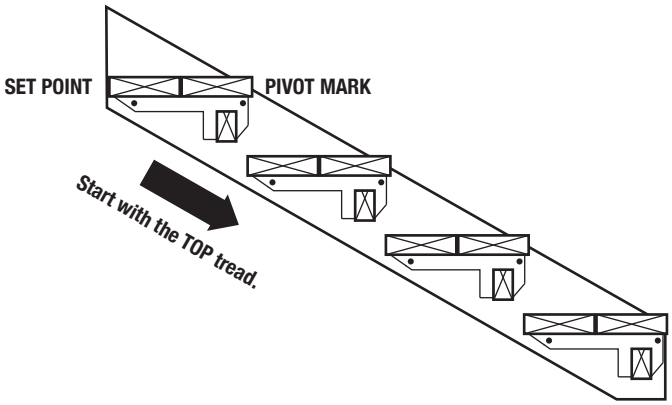
2. Pivot template:
Pivot the template so that YOUR RISE PER TREAD inch mark the top of the template is pointing at the next pivot mark on the stringer.

3. Mark set point:
Use an awl or screw (something with a sharp point) to make a mark through the SET POINT hole in the template.



Repeat process on the inside of the other stringer using the other side of the template.





Place one stringer on a flat surface. Starting with the top tread, place the tread so that the holes in the bracket correspond with the PIVOT MARK and SET POINT on the stringer. Attach with 1¼" screws.

Do the same with the other treads, working your way down the stringer from top to bottom.

Gently roll the stair down and then up again onto the other stringer. Align the holes in the brackets with the PIVOT MARK and SET POINT on the stringer. One tread at a time, attach with 1¼" screws.

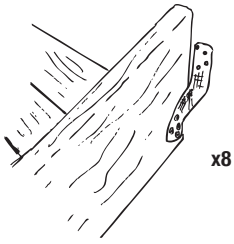
Fill the remaining holes in all the brackets with 1¼" screws.

Setting the Stair

The stair is attached to the platform with two brackets.

Attach these brackets to the stair before you attach the stair to the platform. Use four 1¼" screws on the outside of the stringer as shown.

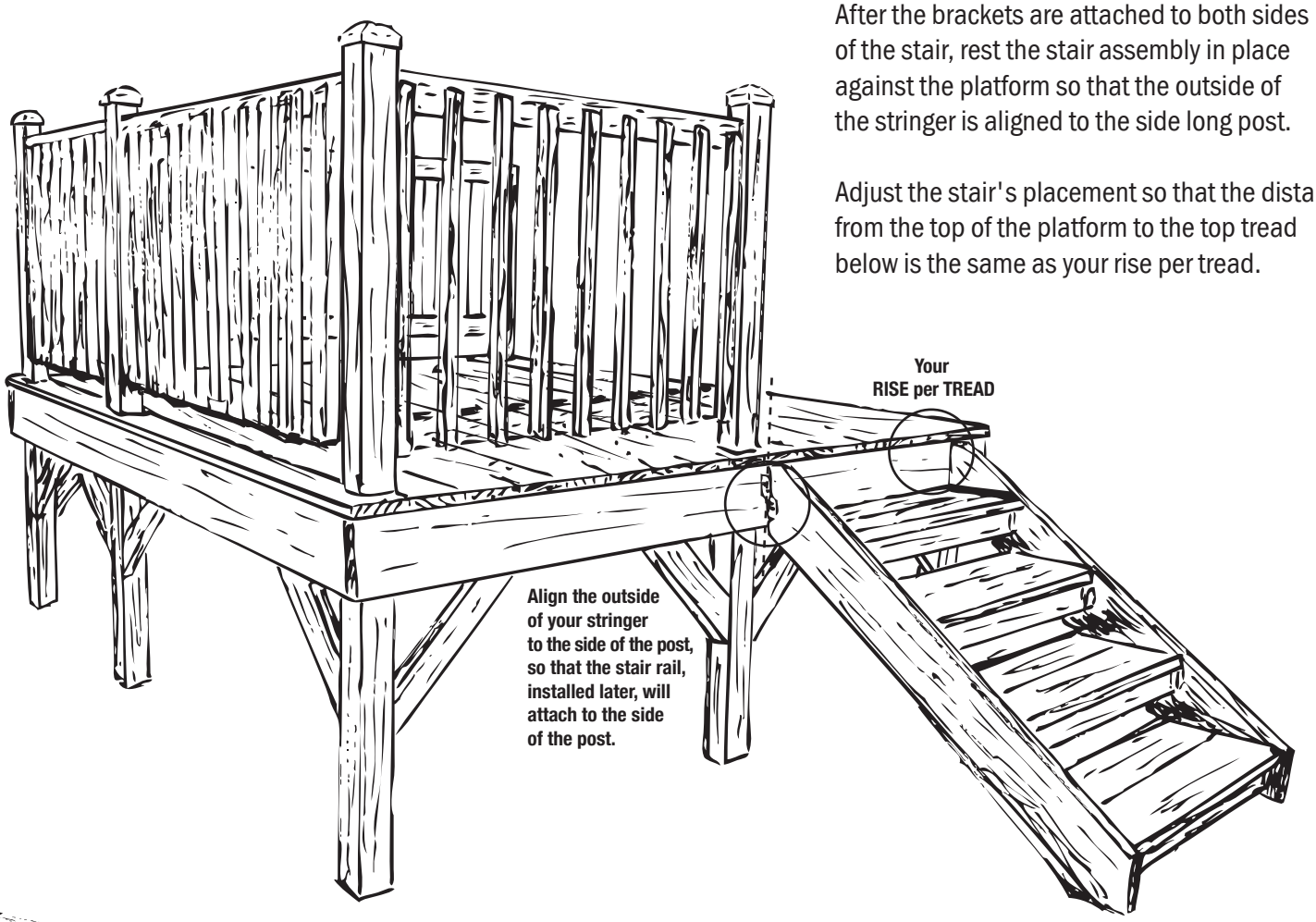
Attach the brackets about one inch away from the top of the stringer (so that the bracket attaches to the platform below the decking).

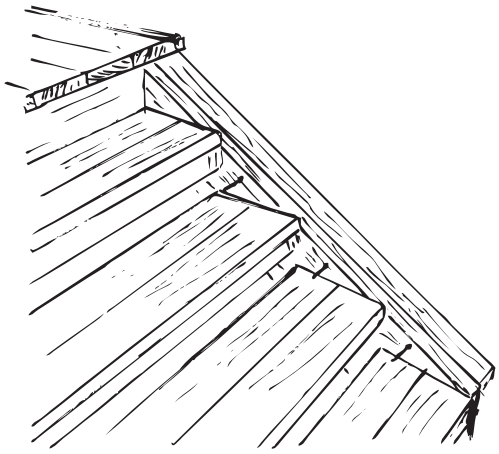


1¼" Screw
x8 per Attachment Bracket

After the brackets are attached to both sides of the stair, rest the stair assembly in place against the platform so that the outside of the stringer is aligned to the side long post.

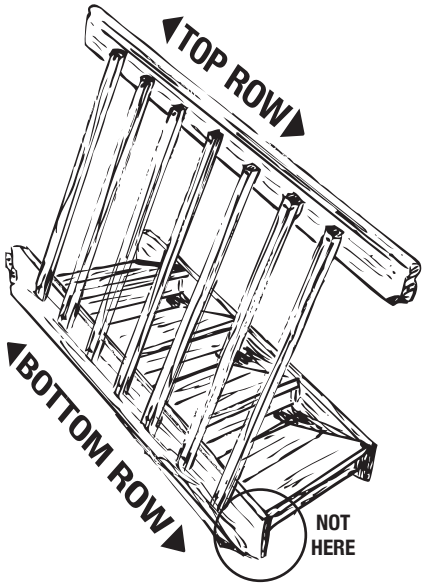
Adjust the stair's placement so that the distance from the top of the platform to the top tread below is the same as your rise per tread.





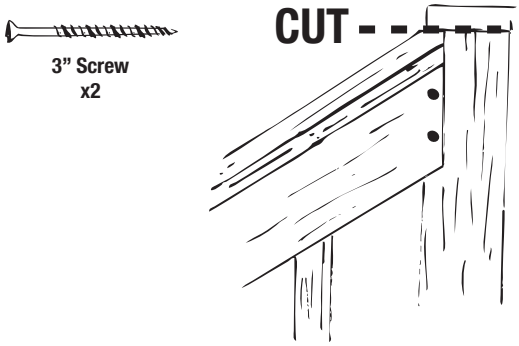
You may need to cut the top corners of the stringers so that the stair can fit underneath the overhanging deck boards.

Also, you may have a space between the stair stringer and the house greater than 4". If the space is too large, you may need to attach a 2x4 or 2x6 filler board.



1. Using the 2½" screws, attach the bottom of each baluster (which is the end with two pre-drilled holes) to the outside of the stringer using the baluster punch marks along the bottom of the stringer.

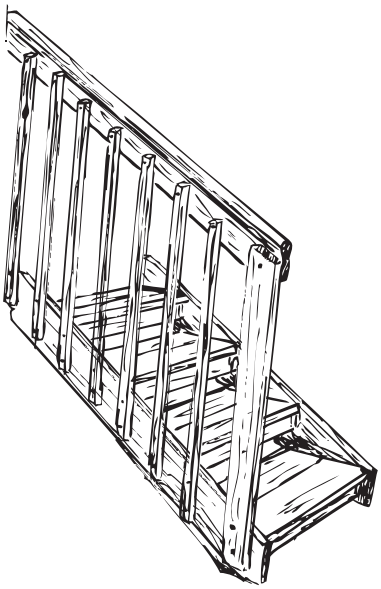
Next attach the top of each baluster to the stair handrail using the punch marks.

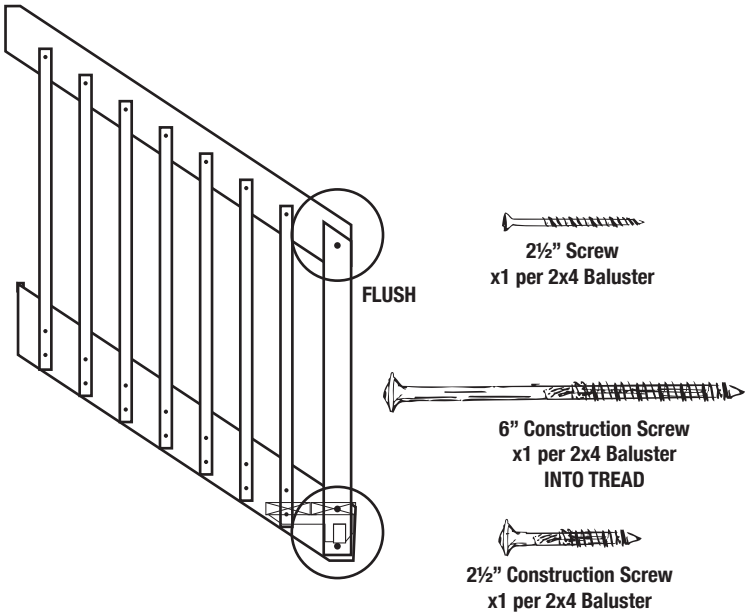


2. Shove the rail into place so that the balusters are vertical. Mark the top of the handrail where it needs to be cut. Then pull the handrail back to cut it. Put the handrail back into place and attach with two 3" screws.

3. Apply screws through the remaining pre-drilled holes of the balusters.

4. Attach the 2x4 stair baluster so that the TOP is flush with the end of the stair handrail and the BOTTOM such that the 6" construction screw will go into the tread.





Determining rise-per-tread for 3, 4, or 5-tread stairs:

To determine your RISE per TREAD, do this quick math or find your TOTAL RISE on the chart below.

39”
30”

If your TOTAL RISE is higher than 39”, divide by 6 rises (5 treads).

If your TOTAL RISE is lower than 30”, divide by 4 rises (3 treads).

TOTAL RISE	÷ 5 RISES (4 TREADS)	= RISE PER TREAD

RISE per TREAD	3 TREADS (4 RISES)	4 TREADS (5 RISES)	5 TREADS (6 RISES)
7 3/4	31	38 3/4	46 1/2
7 5/8	30 1/2	38 1/8	45 3/4
7 1/2	30	37 1/2	45
7 3/8	29 1/2	36 7/8	44 1/4
7 1/4	29	36 1/4	43 1/2
7 1/8	28 1/2	35 5/8	42 3/4
7	28	35	42
6 7/8	27 1/2	34 3/8	41 1/4
6 3/4	27	33 3/4	40 1/2
6 5/8	26 1/2	33 1/8	39 3/4
6 1/2	26	32 1/2	39
6 3/8	25 1/2	31 7/8	38 1/4
6 1/4	25	31 1/4	37 1/2
6 1/8	24 1/2	30 5/8	36 3/4
6	24	30	36

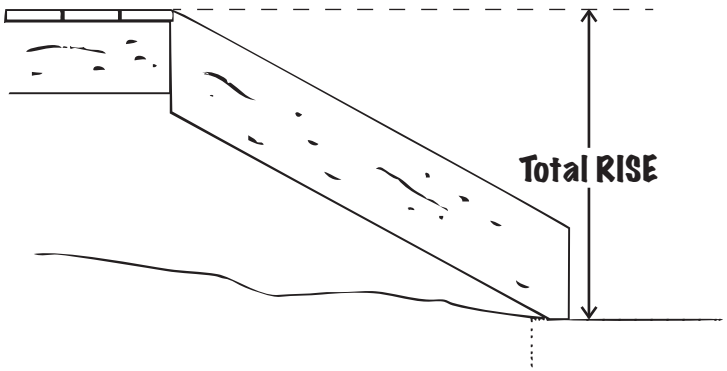
Baluster spacing could be more than 4” at this range.

Most manufactured houses require a 4-TREAD stair kit that will comfortably cover a TOTAL RISEfrom 30 to 39” (38¾” will “stretch” within building code to 39”).

If your TOTAL RISE is higher than 39”, you will have to exchange your 4-TREAD stair kit for a 5-TREAD stair kit.

If your TOTAL RISE is lower than 30”, you can exchange your 4-TREAD stair kit for a 3-TREAD stair kit, or simply cut the 4-TREAD kit at the third tread.

Adjustable stairs are ordered by the number of treads. The number of rises is one more than the number of treads.



Your TOTAL is the vertical distance between the top of the platform and the landing point of the stair. It is important to measure at your landing point because there may be a change in elevation between the point directly below the platform and the landing point.