## INSTALLATION MANUAL



## 42" and 60" HAYDEN



## CALIFORNIA PROPOSITION 65

 RAW WOOD PRODUCT EXPOSUREWARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood

## CALIFORNIA PROPOSITION 65

WARNING: This product can expose you to chemicals including formaldehyde, ethylbenzene, fitanium dioxide, cumene, carbon black, silica and wood dust, which are known to the State of California to cause cancer, and toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

On behalf of everyone at Mylen Stairs, we would like to thank you for your purchase of one of our products. This product is designed and manufactured in the USA. This stair comes with an Installation Manual. It is important that you read and fully understand this manual prior to installation. Following the steps exactly as specified in the manual will ease installation and reduce the amount of time necessary to complete the process. Keep this manual even after the installation process has been completed. Understand how to use tools that may be required during the installation process. Observe all safety warnings called out in this manual. Make sure those who may install this product for you understand this manual as well as you do.

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## NOTICE !!!

Unauthorized modifications may present extreme safety hazards and could also result in injury or product damage. Mylen Stairs strongly warns against, rejects and disclaims any modifications, add-on accessories or product alterations that are not designed, developed, tested and approved by Mylen Stairs' Engineering Department. Any Mylen Stairs product that is altered, modified or changed in any manner not specifically authorized after original manufacture - including the addition of "aftermarket" accessories or component parts not specifically approved by Mylen Stairs - will result in the Mylen Stairs warranty being voided. Any and all liability for personal injury and/or property damage caused by any unauthorized modifications, add-on accessories or products not approved by Mylen Stairs will be considered the responsibility of the individual(s) or company designing and/or making such changes. Mylen Stairs will vigorously pursue full indemnification and costs from any party responsible for such unauthorized post-manufacture modifications and/or accessories should personal injury and/or property damage result.

## This symbol means:

!
ATTENTION! BECOME ALERT!
Your safety and the safety of others is involved.

## Signal word definitions:

The signal words below are used to identify levels of hazard seriousness. For your safety and the safety of others, read and follow the information given with these signal words and/or the symbol shown above.

## DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.

## WARNING <br> WARNING indicates a potentially hazardous situation which, if not avoided, COULD result in death or serious injury.

## CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices or property damage.

## CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, MAY result in property damage

## Read the Installation Manual

- If anyone involved in the installation process cannot read English, it is the owner's responsibility to explain the contents of this manual to them.
- If any portion of this manual is unclear, contact the Mylen Stairs Customer Service Department for clarification.
- It is the owner's responsibility to be familiar with the use of any tools that may be necessary to complete the installation of this product. Read the manual for these specific tools.
- Do not install or allow anyone to install this product if there are any questions about the installation process.
- Never attempt to install this product if any of the components are damaged or have any unauthorized modifications.
- All persons should be trained. The owner is responsible for training the users.
- Wear the appropriate personal protective equipment during installation.
- Wear hearing protection.
- Wear safety glasses.
- Wear a dust mask to avoid breathing dust.
- Never allow children, unskilled or improperly trained people to participate in the installation process.
- Keep the Installation Manual legible and intact.
- Do not attempt to install this product while under the influence of drugs or alcohol.
- The owner/user can prevent and is responsible for accidents or injuries occurring to themselves, other people or property.


## Site Preparation

- Check the area where the product is to be installed.
- Be sure the area is clear of pets and people, especially young children. Stop the installation process if any enter the area.
- Installation should be done in daylight or in good artificial light.
- Only use components approved by the manufacturer.


## Installation Preparation

- Do not tamper with any component.
- Use extra care when unloading or moving any component. Some components may be heavy and require multiple people to move them safely.
- Keep all fasteners such as nuts and bolts well secured.
- Verify that all components are in good condition and are not damaged in any way.
- Do not start the assembly process until you read the Installation Manual.
- Do not use the stair until the assembly process is complete.


## Suspending the Installation Procession

- If it is necessary to suspend the installation process, it is the owner's responsibility to mark off the area to limit access until the installation is complete.
- Do not allow anyone to use the stair until the assembly process is complete.

Parts \& Hardware

|  | $\sim$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| (1) <br> Base | (2) Baseplate Cover |  | (4) Centering Ring |  |
|  |  |  | $\square$ |  |
| (6) <br> Tread | Threaded Coupler | (8) Treaded Coupler w/ nut | Column Segment (both ends threaded) | Column Segment (one end threaded) |
|  |  | $\bigcirc$ |  |  |
|  | Column Cap | (13) <br> Platform Nut Spacer | (14) <br> Platform Bracket | (15) <br> Platform Rail |
| $0$ |  |  |  |  |
| (16) <br> Baluster Cup |  | Platform Rail Post (with set screw holes) | Platform Rail Post | (20) <br> Vertical Post |
|  | (0) |  |  |  |
| Platform Rail Capping | Baluster Line Rail Mount | (23) <br> Line Rail Cup | (24) <br> SS Line Rail - Coiled |  |
|  | $\longrightarrow$ |  |  |  |
| (26) <br> SS Line Rail - Straight | (27) <br> Threaded Rod |  |  |  |


|  | tem | Description | Item |  | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (A) |  | 3/8"x3" Lag Screw | (1) |  | \# 10-32x1-1/2" Flat Head Type F Screw |
| (B) |  | 3/8" Flat Washer | (N) |  | \#7x1-1/2" Fillister Head Screw |
| (C) |  | 5/8"-11 Hex Nut | (0) |  | 5/16"-18x5/16" Set Screw |
| (D) |  | 5/8" Structural Washer | (P) |  | 5/16"-18x1-1/2" Hex Drive Flat Head Screw |
| (E) |  | 5/16"-18 x 1" Hex Drive Flat Head Screw | Q) |  | 5/16"-18x2-1/2" Hex Drive Button Head Screw |
| (F) |  | 5/16"x.875" OD Flat Washer | (R) |  | 5/16"x1-1/4"OD Flat Washer |
| (G) |  | 5/16"-18 Hex Nut | (S) |  | \#12-14x1-1/2" SQ Drive Self Drilling Screw |
| (H) |  | 5/16"-9 Grade A Zinc Finish Hex Head Lag Screw | ( 1 |  | \#12-14x1" Flat Head Self Drilling Screw |
| (1) |  | $1 / 4 "-20 \times 3 / 8 "$ <br> Socket Set Screw | (1) |  | \# 12-24x3/4" Phillips Head Type F Screw |
| ( ${ }^{\text {a }}$ |  | \#10-16x1" Self Drilling Truss Head Screw | (V) |  | \#12-11x1" Flat Head Screw |
|  |  | \#12-11xl" Pan Head Screw | (1V) |  | \#12-14x1" Pan Head Self Drilling Screw |
| (L) |  | \# 10-16x3/4" Pan Head Self Drilling Screw | © |  | \#12-14x3/4" Flat Head SQ Drive Self Drilling Screw |

## READ BEFORE STARTING INSTALLATION

## WOOD HANDLING

UNFINISHED TREADS AND HANDRAILS ON THE JOB SITE WILL ABSORB MOISTURE FROM THE AIR. THESE MUST BE SEALED WITHIN 1 WEEK TO AVOID ADVERSE AFFECTS ON THE WOOD.

NEARBY PLASTERING, TILE WORK, CEMENT OR BRICKWORK INTRODUCE ENOUGH WATER IN THE IMMEDIATE ENVIRONMENT FOR THE WOOD TO BE AFFECTED.

IF NEEDED, STORE THE WOOD PROVIDED IN A COOL, DRY AND STRUCTURALLY STABLE LOCATION.

## WOOD FINISHING

A. SAND ALL WOOD SURFACES BEFORE APPLYING ANY STAIN OR POLYURETHANE. NEARLY ALL PROBLEMS WITH FINISHING OCCUR DUE TO IMPROPER SANDING PRIOR TO STAIN OR POLYURETHANE APPLICATION. TREADS MAY RUB TOGETHER, OR AGAINST OTHER SURFACES DURING HANDLING AND TRANSPORTATION. THIS MAY CREATE "SHINY SPOTS" WHICH PREVENT AN EVEN FINISH. TAKE PRECAUTIONS WHEN TRANSPORTING TREADS.
B. SAND ALL WOOD SURFACES WITH 100 TO 220 GRIT RATING.
C. APPLY A STAIN IF ANY COLOR OTHER THAN THE NATURAL FINISH IS DESIRED.
D. THREE COATS OF SEALER MUST BE APPLIED TO ALL WOOD SURFACES. INADEQUATE FINISHING OF ALL SIX SIDES OF A TREAD (WHICH INCLUDES THE BOTTOM) WILL ALLOW MOISTURE TO BE ABSORBED.
E. CHECK WITH YOUR PAINT SPECIALTY DEALER FOR FURTHER INSTRUCTIONS IF NEEDED.

1. Measure the platform from the mounting face to the center of the large
hole to determine where to mount the base (1).
NOTE: Alternatively, you can lay the platform on the lower floor to get a
layout for where the column will fall. This is only possible if the mounting
wall(s)/surface(s) extend all the way to the lower floor and are plumb.
2. After positioning the base, fasten it to the floor with hardware (A) and
hardware (B).
3. Slide a sleeve (3) onto the base column and guide it through the baseplate cover.
4. Slide a Clear centering ring (4) onto the base column with the flanges facing down
5. Most stairs will need spacers (5). The number of spacers can be found by first sliding the tread (6) over the column. Press the tread firmly down onto the sleeve and measure the height.
6. The spacers are $1 / 8^{\prime \prime}\left(.125^{\prime \prime}\right)$ thick. Calculate how many spacers will be needed under the tread to raise the tread from the measured height with no spacers to your riser height. You can calculate your riser height by using the following simple calculation.
a. Add number of treads and platforms =
b. Measure the floor to floor height in inches =
c. Divide 4 b by $4 \mathrm{a}=$ $\qquad$ (This is the riser height of your stair)
d. Riser height is usually between $8 \frac{1}{2}$ " and $91 / 2^{\prime \prime}$.


NOTE: Treads may need anywhere from 0 to 8 spacers underneath the tread to raise the tread up to the riser height calculated in Step 4.


Hardware

Parts
(3) (4)(5) (6)
5. If spacers are required, remove the tread and add the correct number of spacers on top of the sleeve. All spacer must go on top of the first sleeve.

NOTE: The spacers have small bosses on one side and indents on the other. The bosses should sit in the indents of the adjacent centering ring or spacer.

6. Reinstall the tread (6) on top of the spacers (if any were required) and remeasure the height of the top of the tread. It should be within $1 / 8^{\prime \prime}$ of the riser height calculated in Step 4.
7. Slide a centering ring (4), sleeve (3), and centering (4) down the column. Ensure that the flanges of the centering rings extend into the sleeve.

8. Slide a tread (6) down the column. Press the tread firmly down onto the sleeve and measure the height from the top of the tread to the floor.
9. Because this is the second tread, the height from the floor to the top of the tread should be two times the riser height calculated in Step 4. Calculate how many spacers will be needed under the tread to raise the tread from the measured height (without spacers) to two times the riser height of the stair.

10. If spacers are required, remove the tread and add the correct number of spacers on top of the sleeve. Reinstall the centering rings (4), sleeve (3), tread (6) and spacers (5) if needed.


NOTE: If several spacers are required, they can be placed above and below the sleeve for a more even appearance as shown above. (not applicable to the sleeve below the first tread)
11. Verify that the height from the top of the tread to the ground is within $1 / 8^{\prime \prime}$ of two times the stair riser height calculated in Step 4. Add or remove spacers if off by more than $1 / 8$ ".
12. Repeat until the next sleeve will no longer fit on the column. Orient the treads so that they alternate being on the left and right to help balance the stair. They will be spun into position in later steps.

|  | Do not stand on the treads until after the platform and <br> balusters are fully installed in later steps. Ensure that the stair is <br> adequately braced while installing treads and additional <br> column segments in the next steps. Failure to brace the stair <br> could result in serious injury or death. |
| :--- | :--- |

Hardware
NOTE: The column comes in segments that are connected with threaded couplers. The column segments with threads in both ends are installed first. The column segment with threads in only one end (10) will be cut to length and installed at the top with the threaded coupler with the nut (8). See below for where to cut the segment.

Use these items first


Use these items last (at the top of the stair)


1. Screw a threaded coupler $(7 / 8)$ all the way into the column segment below.
2. Screw the next column segment (8/9) onto the threaded coupler installed in the previous step.

NOTE: Ensure that you use all threaded couplers and column segments with threads in both ends (7\&9) BEFORE using the segment and coupler meant to be used at the top ( $8 \& 10$ ). Shorter stairs may only need the top segment and coupler (7\&9). The threaded coupler with the nut (8) must be installed with the nut facing down.
3. Repeat steps $8-11$ from the previous section, adding column segments as needed. Stop when you get to installing the top segment (10) because it must be cut to length.

4. Screw the top column segment in and mark where the top of the platform will be in the column. Typically the top surface of the platform will be flush with the top floor.
5. Measure 4" down from the mark. Remove the top segment and cut at this line.
6. Reinstall the top column segment after cutting it to size. Add the remaining treads.


## Hardware

1. Screw the threaded rod (27) into the nut in the column. The threaded rod should protrude approximately 6 " up past the top of the column segment.
2. Slide the spacers (5) (if needed) centering rings (4) and sleeve onto the column segment. Use the same number of spacers as the tread below.


Do not install the platform unless the stair is braced. The weight of the platform could cause the stair to become unstable. Failure to brace the stair could result in serious injury or death.
3. Slide the platform (11) over the column. Temporarily hold the platform in position on the surface it will be mounted to.
4. Check that the platform is level while holding it in position. If it is not level, add or remove spacers below the platform to bring it to level.

5. The platform is reversible and will work with left hand up and right hand up stairs. Identify and mark which side of the platform will be facing up and which side will be facing down.

6. After marking the platform, remove it from the stair and fasten the mounting brackets (14) to the bottom surface in locations shown below. The brackets should be mounted flush to the edge of the platform. For a wood laminate platform drill small 3/16" pilot holes in the locations for the lag bolts (H). DO NOT DRILL THE PILOT HOLES COMPLETELY THROUGH THE PLATFORM. Loosely secure the platform mount brackets to the bottom of the platform with hardware (F) and (H).


Wood/Laminate Platform
Bracket Mounting

7. For metal platforms, loosely secure the platform mount brackets to the bottom of the platform with hardware (E), (F) and (G). There are pre-drilled holes where the mount brackets should be positioned.

Metal Platform: Bracket Mounting

8. With the mounting brackets installed on the bottom of the platform, reposition the platform onto the column. Hold the platform in position and fasten the mounting brackets to the wall using hardware (A) and (B). If needed, $3 / 16$ " pilot holes can be drilled for hardware A.
9. Push the platform against the mount surface to eliminate any gaps, then tighten all platform mounting hardware.

10. Slide the column cap (12) onto the column and through the hole in the platform. Ensure that the column cap is fully inserted and resting flush on the platform.

11. Secure the platform to the column with the platform nut spacer (13) and hardware (C) and (D). There should be between $1 / 2^{\prime \prime}$ and $3 / 4^{\prime \prime}$ of threaded rod above the nut. Spin the threaded rod until it is within this range, then tighten the nut to $25 \mathrm{ft}-\mathrm{lbs}$. This will compress the column and remove any gaps between the treads and column segments. The column nut will be fully tightened in later steps.


|  | Do not stand on the treads or platform. They are not fully <br> secured at this time. Walking on the stair at this time could <br> cause the stair to become unstable and fall and result in <br> serious injury or death. |
| :--- | :--- |

1. Slide a baluster (15) through the platform and tread below. Fasten baluster line rail mounts (22) to the baluster with hardware (X). The line rail mounts will prevent the baluster from falling through the hole in the tread. Plumb the baluster by rotating the tread below before moving to the next baluster.

NOTE: Make sure the baluster line rail mounts on the correct side of the baluster for your specific installation. The angled profile on top of the baluster should angle upward toward the top of the stair. There are small marks on each side of the baluster to position the line rail mounts. Secure the baluster while installing the hardware(X).

2. Repeat Step 1 until you reach the final baluster that goes from the bottom tread to the floor. This baluster must be cut to size.
a. Metal treads - cut $5 / 8$ " off the bottom of this final baluster.
b. Laminate treads cut 1-7/8" off the bottom of this final baluster.
3. Slide the final baluster through the bottom tread. Use the level to plumb the baluster while it is resting on the floor. Mark the floor in the location of the final baluster and remove the final baluster.
4. Lift the second to last baluster to allow the final tread to swing out of the way. Position the baluster cup (16) on the location marked in Step 3 and fasten it to the floor with hardware (K).
5. Swing the last tread back into position and slide the final baluster through the tread and into the baluster cup. Fasten the line rail mounts (22) to this baluster with hardware (U). At this point all the balusters should be in location but able to rotate freely.
6. Start at the bottom baluster of the stair and slide the line rail cups (23) onto the lowest line rail mount and partially tighten the set screws closest to the baluster. The set screws should be tight enough to allow the line rail cups to still rotate.

7. Take a coiled section of stainless steel line rail (24) and insert it through the line rail cup installed in Step 6. Tighten the set screws to lock the line rail in place.

8. Slide a line rail cup down the line rail and secure it to the next baluster. Repeat this for the rest of the balusters. Tighten all the set screws after the line rail is installed.

NOTE: Only install the first line rail. The balusters now need to be fastened to the floor, treads, and platform.
9. Fasten the bottom baluster to the baluster cup using hardware (L).
10. Fasten the balusters to the treads and the platform using hardware (I) for metal treads or hardware (J) for laminate treads. Be sure to push the balusters up until they are flush with the bottom of the tread before installing the hardware.


NOTE: Do not install the other line rails at this time. Wait until after the handrail is installed in the next steps before installing the remaining line rails. The top two line rails can interfere with the installation of the handrail.

1. The handrail is shipped in a coil that is typically between 36 " and 48 " in diameter. The first step to fitting the handrail is increasing this diameter to the proper coil diameter listed below.

| Stair Diameter | $3^{\prime}-6^{\prime \prime}$ | $5^{\prime}-0^{\prime \prime}$ |
| :--- | :--- | :--- |
| Coil Diameter | $60^{\prime \prime}$ | $75^{\prime \prime}$ |

NOTE: The coil diameter should be larger than the stair diameter.
2. On a soft surface such as carpet, position the coil as depicted below. The cut end (1) should be approximately 4"-6" off the ground.
3. Insert a lever (2) into the cut end. A wooden handle (such as a broom handle) makes a suitable lever.
4. Hold the coil in place on the side opposite the cut end. Push the lever down until the coil bends slightly. It may be necessary to brace the coil where it contacts the ground to prevent it from slipping during this process.


NOTE: This example depicts a right hand up handrail. The lever would be on the left side of a left hand up handrail.

IMPORTANT - The handrail is best formed with a series of many small adjustments. To avoid kinks and/or warped sections, do not sharply bend the handrail.
5. Rotate the handrail counterclockwise (clockwise for left hand up) approximately 20 degrees.
6. Hold the coil in place on the side opposite the cut end. Push the lever down until the coil bends slightly. It may be necessary to brace the coil where it contacts the ground to prevent it from slipping while forming.

Parts

7. Repeat steps 5 and 6 until the cut end is vertical. It should now be long enough to form by hand.
8. Hold the coil in place and pull the unsecured side outward and away from the center of the coil until the coil bends slightly. It may be necessary to brace the coil where it contacts the ground to prevent it from slipping while forming.

9. Continue rotating the coil and forming until the whole coil has been worked through. Measure the coil diameter to determine if more adjustment is needed. If so, repeat the forming process from the beginning.

IMPORTANT: Do not try to bend the handrail into shape on the first pass through the coil. For best results, make small adjustments and repeat the process as needed.
10. Lay the handrail down and find the cut end that contacts the ground. Use the method below to determine the orientation of the handrail.


NOTE: If the handrail orientation matches the orientation of the stairs being installed, skip to the next step.
11. Stand the handrail up. Push a cut end towards the center of the coil enough to clear the adjacent rail. Pull this cut end through the coil to the other side. The other cut end must be pulled away from the center of the coil and pushed over the adjacent rail.

Hardware

Parts
(11)

Tools



Hardware

1. Once the Handrail has been shaped, dry fit the rail to the baluster tips.

NOTE: The handrail may be slightly kinked on both ends. This is normal and the handrail should be positioned so that these ends can be cut off after installation.
2. With a helper, position the handrail (17) on top of the balusters.
3. Start at the top of the stair. Hold the handrail firmly against the baluster tip. Drill a $1 / 8$ " pilot hole into the handrail through the hole in the baluster tip.
4. Secure the handrail to the baluster with hardware (M).

5. Repeat Step 2-4 and work down the stair. If any minor adjustments need to be made to the aluminum handrail during installation, be sure to hold the rail firmly against the last secured baluster. Making adjustments to the rail without holding it against the baluster above could cause the screw to tear out.
6. Once the handrail has been attached to all of the main balusters, cut the railing $3^{\prime \prime}$ above the top baluster and 3 " below the bottom baluster. If your local building code requires a longer length, cut the handrail to meet the code.
7. Use the supplied two-part epoxy to bond the endcaps to the handrail.

## Hardware

1. Tighten the nut at the top of the column to 85 ft -lbs before proceeding to step 2.

## $\triangle$ WARNING

Failure to tighten the nut at the top of the column could result in the stair becoming unstable and fall and result in serious injury or death.
2. Thread hardware (O) into the bottom of the platform rail post (18).
3. Secure the platform rail mount plate (28) to the top of the post with hardware ( P ). The mount plate should sit on top of the notches.
4. Place the second platform rail post (19) into positon over the pre-drilled holes in the platform and secure with hardware (Q and R). Make sure that the holes in the post face away from the platform. These holes are for the line rail that will be installed later.

5. Install the platform post without holes (20) into the location next to the top baluster using hardware ( $Q$ and $R$ ).

6. Place the platform rail capping (21) on top of the posts and secure with hardware $(S)$.


Hardware

1. At this point, the balusters should be fastened to the treads with the handrail and the lowest line rail installed.
2. Start at the bottom baluster of the stair. Slide the rail cups (23) onto the line rail mounts and partially tighten the set screws closest to the baluster. They should be tight enough to where they can still rotate.
3. Take a coiled section of stainless line rail (24) and insert it through the line rail cup. Tighten the set screw that is furthest from the baluster to lock the line rail in place.
4. Slide a line rail cup down the line rail and secure to the next baluster. Repeat this for the rest of the balusters and line rail. Tighten all the set screws after the line rail is installed.

5. Mount platform rail mounts to the platform posts with hardware $(U)$ similar to Step 1. The platform line rail mounts have a flat bottom.
6. Install the line rail cups (23) to the mounts followed by the straight segments of the stainless line rail. Tighten all the set screws.
7. After all platform line rail is installed, go back through and cut off excess line rail if needed.

