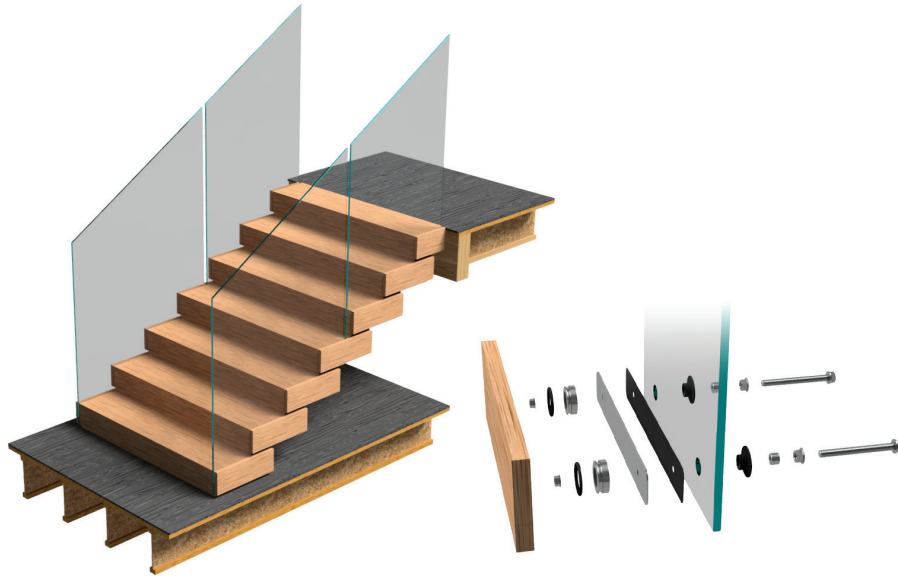


FLIGHT Stack Straight Stringer Installation



Tools Needed

- Pencil
- Tape Measure
- Chalk Line
- Impact Drill
- T-30 Bit
- 3/8" & 1/2" Wood Bits
- Construction Adhesive
- Pin Nails
- Socket Wrench
- Torque Wrench
- 3/4" Socket
- 1/2" Socket

Installation

1. Use the provided shop drawings to show header plate mounting location. It is a good idea to dry fit the stringer to ensure that the stringer and environment match up.

2. Header Plate Installation (See Figure A)

Wood Header: Secure the header plate to the header with wood screws in order to keep it in place.

Concrete Header: Secure the header plate to the header with concrete screws in order to keep it in place.

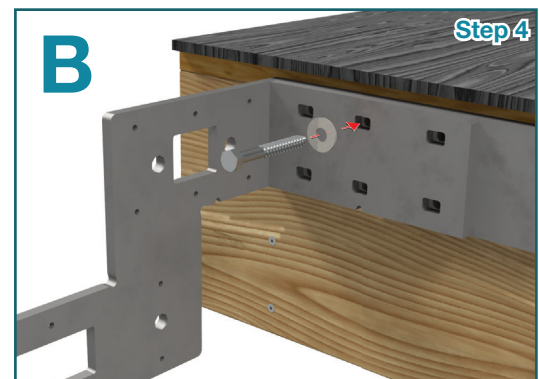
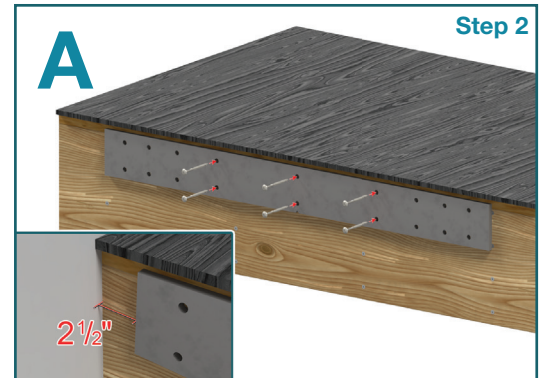
Note: If either side of the system is up against a wall, ensure that the stringer plate is no less than 1/2" from the wall. This means you will need to mount the Header Plate no closer than 2 1/2" to a wall.

3. Using a 3/8" bit, drill pilot holes through the holes in the header plate.

4. Stringer to Header Plate Connection (See Figure B)

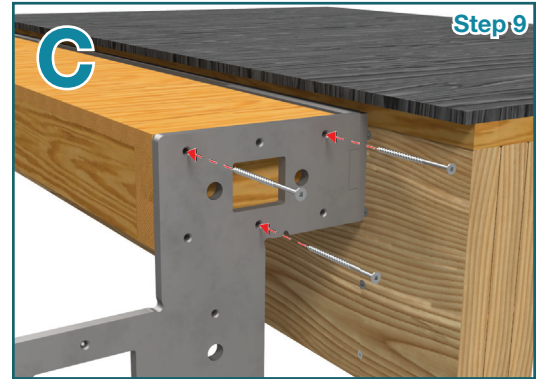
Wood Header: Align stringer to header plate. Fasten (one) 1/2" x 3 1/2" Hex Lag through each of the stringer plates and through the header plate. These should only be snug at this point.

Concrete Header: Refer to the recommendation of the brand of epoxy you are using and predrill the correct sized hole for a 1/2" threaded stud. You will only be drilling a hole in the top center of the stringer plate. Apply concrete epoxy in to the hole and insert a threaded stud. Slide a Washer and nut on to the threaded stud and tighten to the manufacture's specs of the fasteners being used.

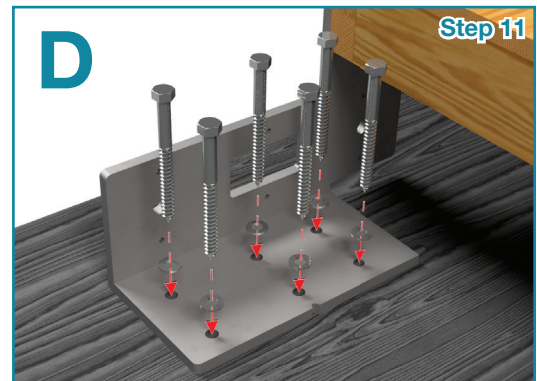


FLIGHT Stack Installation Steps (Continued)

5. Dry fit the top tread box in order to ensure that the stringers are in the correct place.
6. Set the tread box aside and adjust stringers side to side if needed.
7. Insert and secure the rest of the $\frac{1}{2}$ " x $3\frac{1}{2}$ " Hex Lags through the stringer and header plates.
8. Position the top tread box in place.
9. Using wood screws, install top step internal wood frame. *(See Figure C)*



10. Install the remaining internal wood frames into each location except for the 1st tread, leave that one off for now. Only populate 3 of the 6 wood screw holes. These are only a temporary mounting solution. *Note: The Internal Wood frame with the separated top is meant for the tread one.*



11. Foot Plate Installation *(See Figure D)*

Wood Floor: Predrill your footer plate holes with a $\frac{3}{8}$ " drill bit. Thread the $\frac{1}{2}$ " x 5" lags through the first washer, through the footer and into the wooden mounting materials.

Concrete Floor: Drill $\frac{1}{2}$ " holes for the concrete wedge anchors. Thread the wedge anchor through the first washer, through the footer and into the concrete. Tighten to the manufacture's specs of the fasteners being used.

12. Install the 1st tread, using the same wood screws used in step 9. *(See Figure C)*

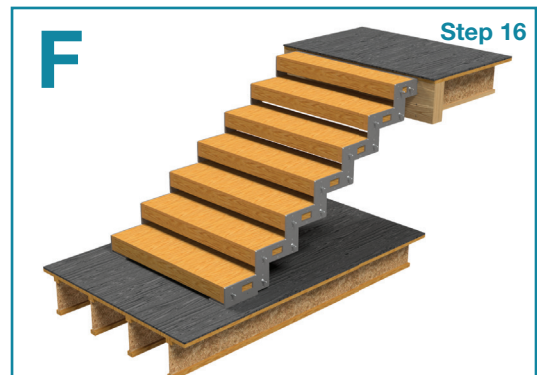
13. Using a $\frac{1}{2}$ " bit, drill pilot holes for each tread.

14. Insert the provided $\frac{1}{2}$ " Hex Drive bolts with a washer through the wood frame and stringer from inside each internal wood frame, through the holes drilled in the previous step. Secure with a $\frac{1}{2}$ " flange nut. *(See Figure E)*



15. Secure the walking surface of tread 1 to the tread 1 box frame using construction adhesive and wood screws.

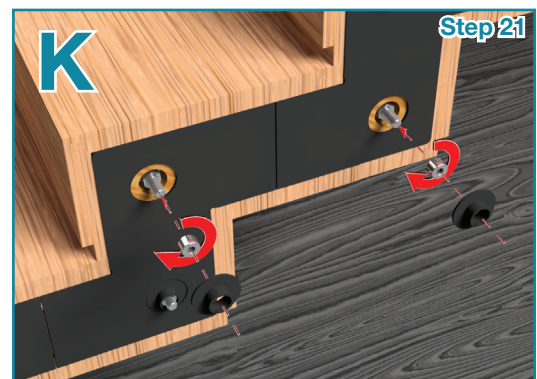
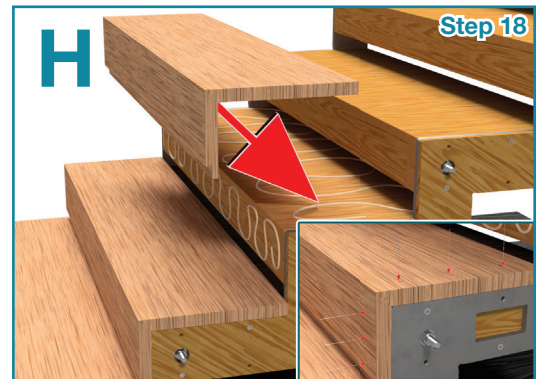
16. If needed, you can begin using the stairs in place of temporary stairs for the remainder of your construction project. *(See Figure F)*



FLIGHT Stack Straight Stringer Installation Instructions

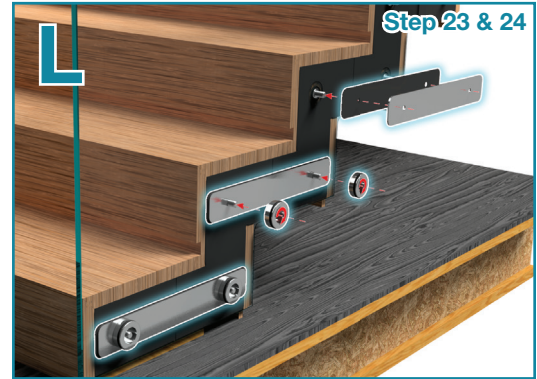
Finishing Steps - To be done after all other construction is completed

17. Using wood screws attach the plywood stringer covers on to each stringer. Use the alternating holes in the metal stringer for the wood screws.
(See Figure G)
18. It is a good practice to dry fit each rise/run assembly to ensure that all edges line up with the stringers. Using construction adhesive and pin nails, attach the riser/run assemblies on top of each tread box, starting at the bottom tread. It is during this step that you connect the LED harnesses to the main harness if applicable.
(See Figure H)
19. Again, using construction adhesive and pin nails, attach the anti-riser/anti-run assemblies under the system. You start from the top tread this time and work your way down.
(See Figure I)
20. Using Construction Adhesive, attach the Stringer Gasket into place.
(See Figure J)
21. Thread a Glass Stud over each bolt until the stud is flush against the tread. Then slide a plastic bushing over each Glass Stud.
(See Figure K)
22. Refer to the engineering prints provided to you to identify the first panel. With the help of a partner, use Glass Suction Cup Handles to position the 1st glass panel into place. Slide the holes in the panel over each gasket and hold this in place while the remaining hardware is mounted.



FLIGHT Stack Finishing Steps (Continued)

23. While your partner holds the glass in place, slide the Plastic Shim then the Metal Clamp Plate over each of the hanger bolts as shown. (See Figure L)



24. Slide a pin on to each of the hanger bolts. Continue to hold the panel in place as the fastening mechanism is applied in the following step. (See Figure L)

25. Hand tighten a nut on to each hanger bolt. There will be play in the exact positioning of the glass panel, this will allow you to make adjustments. (See Figure M)



26. Using a torque wrench and a 9/16" socket head, tighten the first and either the last or second to last nut on the pin to 23 lb ft. This will make it easier if you need to readjust the fitment once all the other glass panels are installed. (See Figure N)

27. Repeat steps 21-26 for the remaining glass panels on the run.

28. Once all the panels are in place, ensure that each is aligned with its neighbors. There will be a 1" gap between panels.

29. Using a torque wrench and a 9/16" socket head, tighten all the remaining nuts on the pins to 23 lb ft.



30. Identify and prepare the wood covers. Although the rubber O rings will provide a snug fit in the predrilled holes for the wood covers, it is recommended to use silicone on the face of the pin around the bolt hole in order to provide additional strength. Apply a line of silicone around each O ring. Attach the wood covers onto each pin. These will fit snugly and could require soft taps to place. (See Figure O)

