Bella Cavo (Horizontal Cable Railing)

(Style C90)

Installation Instructions

- *It is the responsibility of the installer to meet all code and safety requirements, and to obtain all required building permits. The installer should determine and implement the installation techniques appropriate for each unique installation situation. Digger Specialties, Inc. and its distributors shall not be held liable for improper or unsafe installations.*
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Tools Required
1) ¼" drive right angle ratchet
1) T30 Torx bit
1) Professional Model PT – CR Tension Gauge
1) Cable Cutter Wire Rope
1) Cable Lacing tool
1) T30 Torx Bit, 4" Long, ¼" Hex Shank
1) ¼" Drive Extension / 6" Long

Tools can be acquired as a kit or individually from DSI.

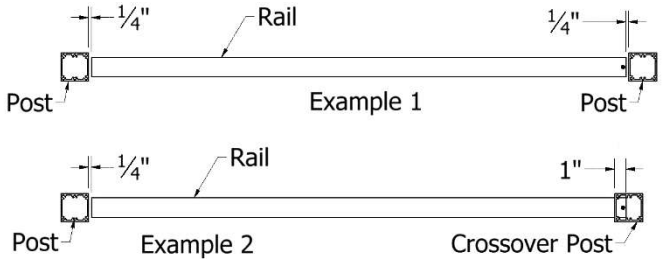
Do not use an Impact Driver!

Only use 1/8" Wire Rope 1 x 19 construction Stainless Steel AISI 316 for Bella Cavo railing.

(Level) Railing

Note: Top rail is 1" longer on each end to accommodate Crossover Railing.

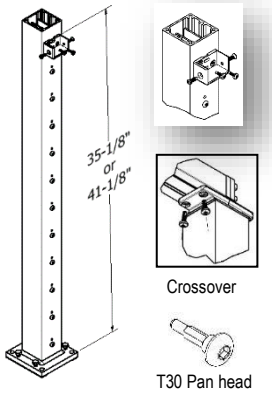
1. Measure the distance between the inside edges of the post where the rails will be placed. Mark the rails ½" shorter than the measurement between post. Cut rails.(See Example 1).



Crossover Railing: For top rail, make end spacing exactly 1" longer on all ends connecting to line crossover post (Example 2). If connecting to a corner crossover cut top rail ¼" short of post.

2. Attach top mount to post by measuring up 35-1/8" (for 36" tall railing) or 41-1/8" (for 42" tall railing) from the top of the top mount to the top of the plate. Keeping the mount centered on post, fasten mount to post with self-tapping pan head screws (provided).

3. Place the top rail into mounts. Fasten rails through the side of mounts with flat head self-tapping screws provided. **Crossover Railing:** Fasten top rail to crossover adaptor with pan head screws provided.



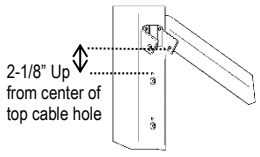
NOTE: *If screw stops penetrating rails, rotate screw in reverse several revolutions while maintaining penetration pressure to remove potential material burr from tip of screw. Then continue to install screw, repeat, as necessary.*

(Level) Railing cont'd

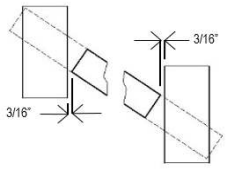
4. Carefully align the mount cover on mount base before applying even, downward pressure to snap cover into place. (Mount Covers can be damaged if the above process is not followed).

(Stair) Railing

1. Position rails against posts. Bottom of top rail should be minimum of 2-1/8" from center of top cable. Clamp rails to post. Mark rails for cutting. Mark posts for each mount position (Example 3). Cut rails 3/16" shorter than mark on each end. Rails should be cut straight on each end (Example 4).



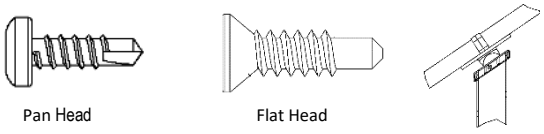
Example 3



Example 4

2. **Crossover Railing**: For crossover stairs set stair crossover kit into the 34° post. Fasten at proper height with self-tapping pan head screws provided. Mark top rails to cut making sure it fits snug into the crossover connector (Example 5). Set correct angle for crossover connector to match railing. Attach crossover rails with pan head screws.

3. Attach mounts to post with pan head self-tapping screws (provided).



Example 5

4. Place stair top (bottom) rail into mounts.

5. Attach rails to mounts by inserting flat head self-tapping screws (provided) through both sides of mounts. Lightly tap mount covers onto mounts. (Use caution when installing covers by applying pressure directly on top of the cover tab.)

(Stair) Swivel Mount

1. Identify top swivel mount and bottom swivel mount.

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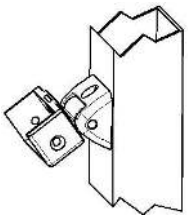
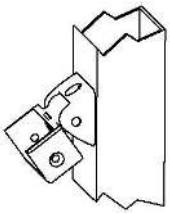
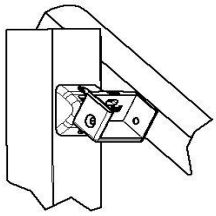
(Stair) Swivel Mount cont'd



Stair Swivel Mount Top Rail



Stair Swivel Mount Bottom Rail



Example 6

2. Clamp rails to post. Hold swivel stair mounts up against posts and beside the rail to determine where rails are to be cut to fit inside the swivel stair mounts. Mark posts for each stair swivel mount position (Example 6).

   NOTE: *This will vary depending on the angle of the stairs.*

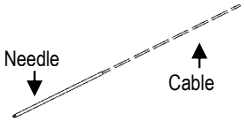
3. Attach top swivel mount base to post using pan head self-tapping screws (provided)

4. Attach rails to mounts using flat head self-tapping screws (provided) on each side of rail.

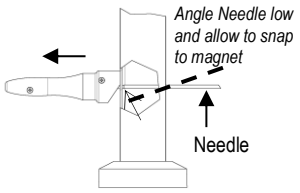
(Level) Cable

Note: *Max straight cable run is 100 feet. For each corner through post reduce this by 10%.* ***Example:*** *Two tensioning posts plus one corner through post will be 90 feet. Max number of corners allowed with 90° angle is two. Max number with 45° angle is four.*

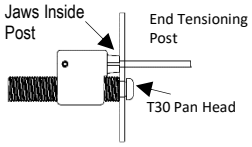
1. Insert needle on the end of your cable. Start lacing the cable at 1st line post from end tensioning post. Work from bottom to top.



2. Lace cable through all line, corner & stair post with magnetic lacing tool. Angle needle low and allow to snap to magnet. Push/Pull the cable through the post guiding it out with needle. Remove needle from cable before inserting cable into end post.



3. Insert/secure cable into tensioning post. **Note:** *If the cable does not grip into jaws, they are not set properly. To properly set, slowly turn the T30 pan head counterclockwise until you reach the limit. (Cable release position)*



(Level) Cable cont'd

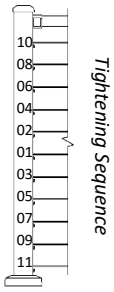
Then, slowly rotate T30 pan head clockwise; stop when jaws move inside post. (Cable engagement position) Insert cable until it stops.

4. Go to the other end of cable and pull tight and place against the tension post. Mark wire 1" past post face and cut.

5. Insert/secure cable as step 3 above.

6. Repeat lacing all cables on post. Do not tighten cables, go to **(Level) Spacer balusters** before proceeding.

7. Start tightening cables. **(See tightening Sequence)** Use a right-angle ratchet with T30 bit or a standard drill driver set to a mid-level torque setting. Tension cables slowly so as not to over tighten. Torque can be adjusted as needed to reach proper tension. **No impact drivers**. Tighten (T30 pan head) to secure the cable, turning it clockwise to tighten and counterclockwise to loosen. The proper cable tension is 220 ± 20lbs. per cable. A cable tension gauge is recommended. If additional tightening is necessary, move to other tensioning post. **Do not over tighten.**



Note: *When tightening cable, ensure that you pull the cable taut at all corner through posts. This maintains the proper tension throughout. Trim the cable if you cannot reach proper cable tension.*

(Stair) Cable

1. Beginning at lower end of stairs, lace top cable through stair line post(s) (If applicable). Insert cable into jaws on upper end post.

2. Place cable against the side of lower end post at cable hole and pull tight. Mark 1½" past post face. Cut cable and insert into jaws.

3. Repeat steps 1 & 2 all the way down the post. Go to **(Stair) Spacer balusters** before proceeding.

4. Start tightening cables. (See tightening Sequence above) Use a right-angle ratchet with T30 bit or a standard drill driver set to a mid-level torque setting. Tension cables slowly so as not to over tighten. Torque can be adjusted as needed to reach proper tension. No impact drivers. Tighten (T30 pan head) to secure the cable, turning it clockwise to tighten and counterclockwise to loosen. The proper cable tension is 220 ± 20lbs. per cable. A cable tension gauge is recommended. If additional tightening is necessary, move to other tensioning post. Do not over tighten.

   Note: *If T30 pan heads are hard to get to with your drill, use an Allen wrench or right-angle ratchet.*

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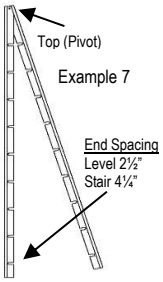
(Level) Spacer Baluster

1. Identify Spacer Baluster for level. Required for post spacing exceeding 4 ft. (Level has a shorter end spacing to holes. Open Baluster as shown in (Example 7).

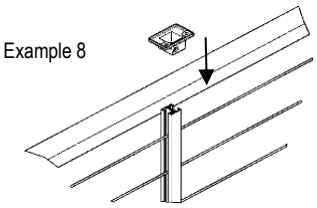


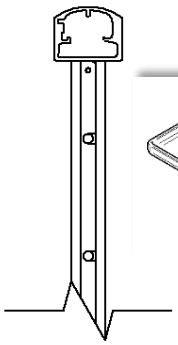
Example 7

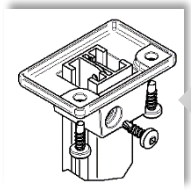
2. Place Baluster over top cable and close over all cables. See (Example 9) for Baluster and mount requirements. Space Balusters evenly between post.

3. With the cables loose, pull baluster out and up from under top rail. Slide on top & bot mounts. (Example 8)

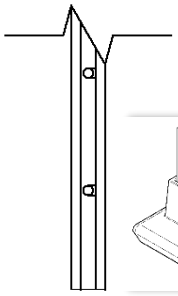
Note: *Position level mounts so screws holes are facing toward deck. When installing a bottom rail, baluster will need to be cut.*

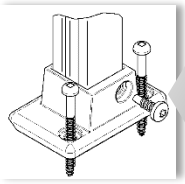

Example 8


Example 9


(Level Mount) Top
(3) #10 x 5/8"
Self-tapping

Please note: *Begin by inserting screws into the top mount first. Then, plumb baluster and insert screws accordingly.*




(Level Mount) Bottom
1. Structural blocking 2 x 4 or 2 x 6 required.
(1) #10 x 5/8" Self-tapping
(2) #10 x 2" wood screw

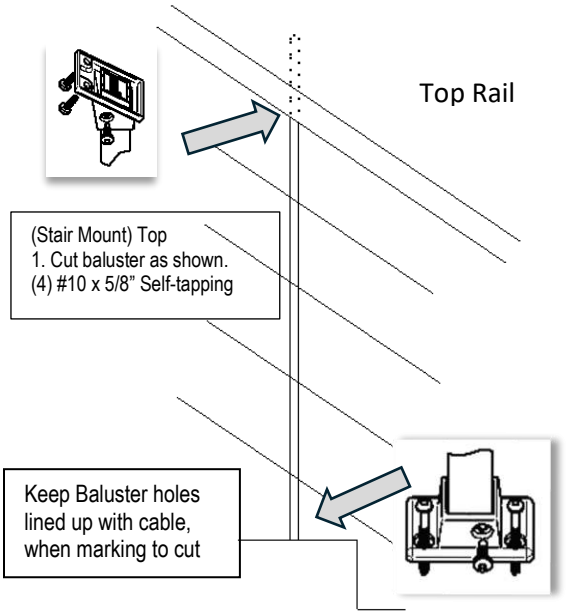
(Stair) Spacer Baluster

1. Identify Spacer Baluster for stair. Required for post spacing exceeding 4 ft. Stair has longer end spacing to holes. (See Example 7).

2. Place Baluster up against rails, verify holes are lined up with cables. Pivot should be to bottom. Mark baluster with pencil and cut. If Bottom rail is used, mark baluster and cut. Mark the pivot end after cutting, this will be the bottom of your baluster.

3. Place Baluster over cables and snap together over all cables. Keep the holes in the baluster lined up, since you have cut the pivot pin off. Baluster and mount requirements (Example 10) below.

4. With the cables loose, pull baluster out and up from under top rail. Slide on top & bot mounts. (Example 8)



Please note: *Begin by inserting screws into the top mount first. Then, Plumb the baluster and insert screws accordingly. Level mount screw holes should be facing inside toward stairs for ease of installing screws.*

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Care and Cleaning

Remove all particles and residue from Westbury aluminum components by referring to the Care and Cleaning requirements on the DSI website. Scan Below:

SCAN ME

Warranty

For product Warranty and Registration please scan below:

SCAN ME