

## Fasteners for Housing Boxes or Shade Brackets

Housing boxes must be mounted in a structurally sound fashion (check with your builder) with two fasteners, evenly spaced, at each end of the housing box. Bare brackets (no housing box) will be installed with fasteners through the bracket mounting holes. Installed fasteners must not touch the fabric roll.

- Baby Grande – 1 ¼" from the housing box end
- Grande – 2" from the housing box end
- Citadel – 2" from the housing box end

Wood 5x5 or larger	4" Torx head construction lag screws
Large heavy-walled hollow aluminum beams or posts	#14 x 1.5-2" self-drilling metal screws
Wood 2x6 or 2x8	4" bolts with washers/nuts, or T-nuts. Excess can be cut off if desired
Concrete	5/16" x 3-6" lag bolts with 3/8" concrete lag shield anchors
Alumawood (usually 2" or 3" thick)	<ul style="list-style-type: none"> <li>• Hollow: Bolts and nuts, put wood in the end of the hollow beam (2x6 or 2x8) or use conduit run through the holes.</li> <li>• If 2" with wood filler, 5/16" x 2" lag bolts (2 per side, with washers under the nuts).</li> <li>• If 3" with steel C-channel inside, if C-channel vertical web is on the housing box side then #14 x 1.56"-2" self-drilling screws.</li> <li>• If the C-channel vertical web is on the opposite side then fill the gap between the web and the opposing aluminum of the Alumawood beam with snugly fitting wood then mount using 5/16" through-bolts with washers and nuts or equivalent t-nuts. Excess bolt length can be cut off if desired.</li> </ul>
Durawood (Polyethylene)	Toggle bolts or if the structure has steel inside use long enough fasteners to anchor to the internal steel
Stucco	5/16" x 3-6" construction lag screws into wood backing material if two-by (or thicker) solid wood.
Hollow Wall with studs	If 4" Torx head construction lag screws will not line up with studs (1 ¼" from end cap on Baby Grande, 2" from end cap for Grande or Citadel Classic or Brawny) use heavy duty steel angle brackets with at least one 3-4" flange that is long enough to span two studs, at each end of the shade. Under mount the top of the housing box to the top 3-4" flange using bolts, washers and nuts.
Hollow Ceiling with joists	If 4" Torx head construction lag screws will not line up with joists (1 ¼" from end cap on Baby Grande, 2" from end cap for Grande or Citadel Classic or Brawny) use heavy duty steel angle brackets with at least one 3-4" flange that is long enough to span two joists, at each end of the shade. Surface mount the back of the housing box to the back 3-4" flange using bolts, washers and nuts.

## Fasteners for Wall-Mount Cable Brackets

Metal Post 2-3"	Metal screws appropriate for gauge/style of metal
Wood Post	2-3" wood screws
Block or concrete or stone	2-3" screws with masonry anchors
Stucco Post or Wall	3-4" wood screws into wood backing material if two-by (or thicker) solid wood
Alumawood	<ul style="list-style-type: none"> <li>• If attaching directly to aluminum center post with steel insert, #14 x 1-1.5" self-drilling metal screws</li> <li>• if attaching through foam-filled post sideplates into center post steel insert, #14 self-drilling metal screws long enough to anchor into the steel.</li> <li>• If anchoring to only a post sideplate, bolts with washer and nut (or T-nut) on the far side of the sideplate.</li> </ul>

## Fasteners for Citadel Side Rails and L-channel Brackets

Metal post or wall	Metal screws appropriate for gauge/style of metal
Wood post or wall	2-3" wood screws
Block or concrete or stone	2-3" screws with masonry anchors
Stucco post or wall	3-4" wood screws into wood backing material if two-by (or thicker) solid wood
Alumawood	<ul style="list-style-type: none"> <li>• If attaching directly to aluminum center post with steel insert, #14 x 1-1.5" self-drilling sheet metal screws</li> <li>• if attaching through foam-filled post sideplates into center post steel insert, #14 self-drilling sheet metal screws long enough to anchor into the steel.</li> <li>• If only anchoring to the sideplate, bolts with washer and nut (or T-nut) on the far side of the sideplate.</li> </ul>
Side Rail to L-channel	#14 x 1-1.5" self-drilling sheet metal screws

## Fasteners for Securing Cables to Composite Decking (if decking underside is not accessible)

If the underside of the composite decking is accessible, we recommend stainless-steel eye-bolts with a washer and nut on the underside. If it isn't accessible, the recommended method is to secure stainless-steel welded D-ring anchors to the deck using stainless-steel toggle-bolts. The Grande stainless-steel aircraft cables are then secured using the supplied stainless-steel Simplex clamps. Locate where to place the anchors using a plumb bob suspended from the cable tension adjuster holes in the bottom corners of the previously mounted housing box.

Suggested Stainless-Steel D-Ring Anchors:

[AMYSports Marine Grade \(316\) Stainless Steel Folding Pad Eye SUS316](#)

[Stainless Steel Tie Down, Surface Mount D-ring, 6,000 lb. Capacity](#)

[US STAINLESS Stainless Steel 316 Folding Pad Eye D-ring Tie Down](#)

Or other comparable product

Suggested Stainless-Steel Toggle Bolts:

[SnapToggle Stainless-Steel 18-8, #10-24](#)

[KapToggle Stainless-Steel 18-8, #10-24](#)

[Amazon Search](#)