

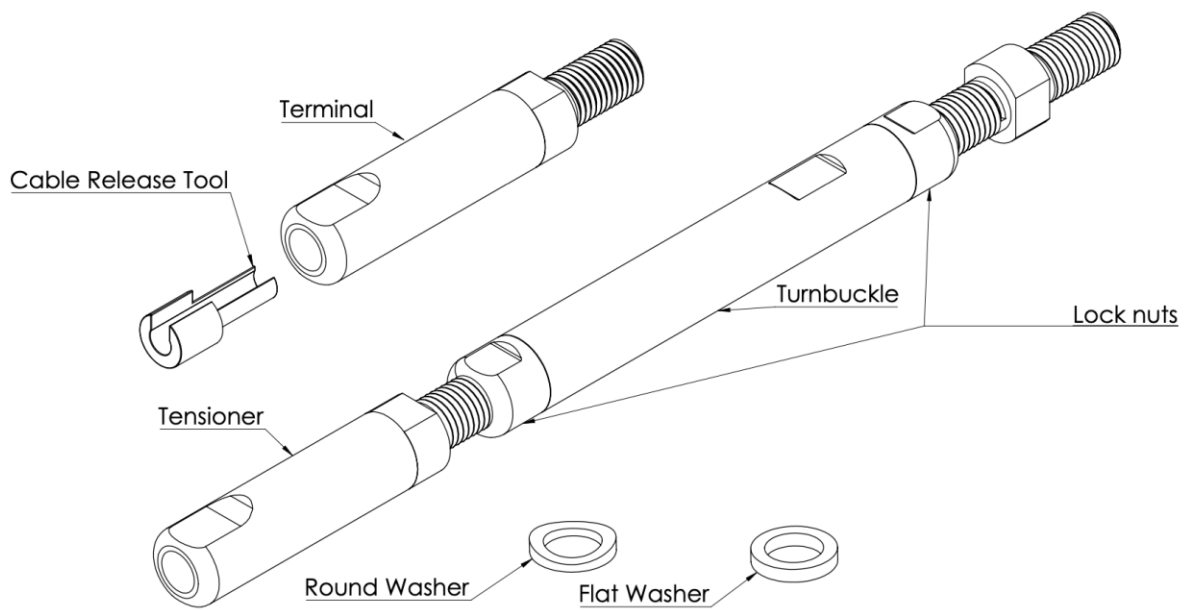
# Installation Guide

## Cable Tensioner System

### Overview

This guide offers detailed steps for installing the Cable Tensioner System.

### Parts

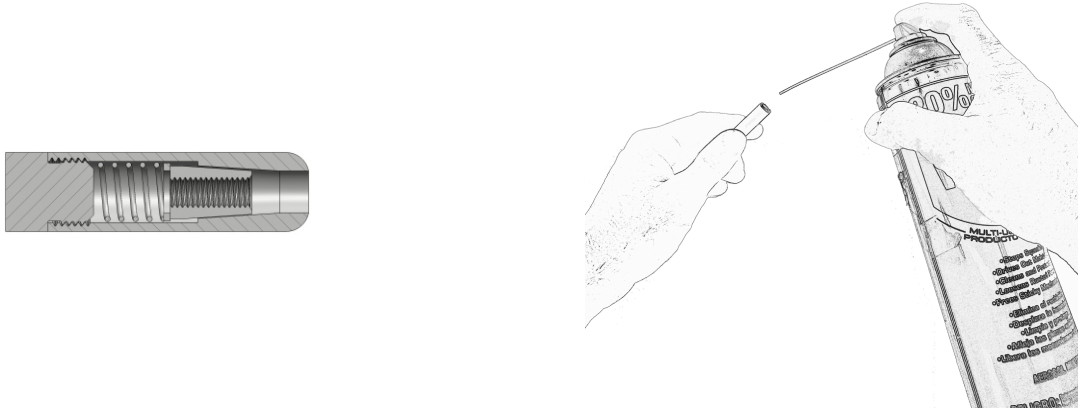


### Tools needed

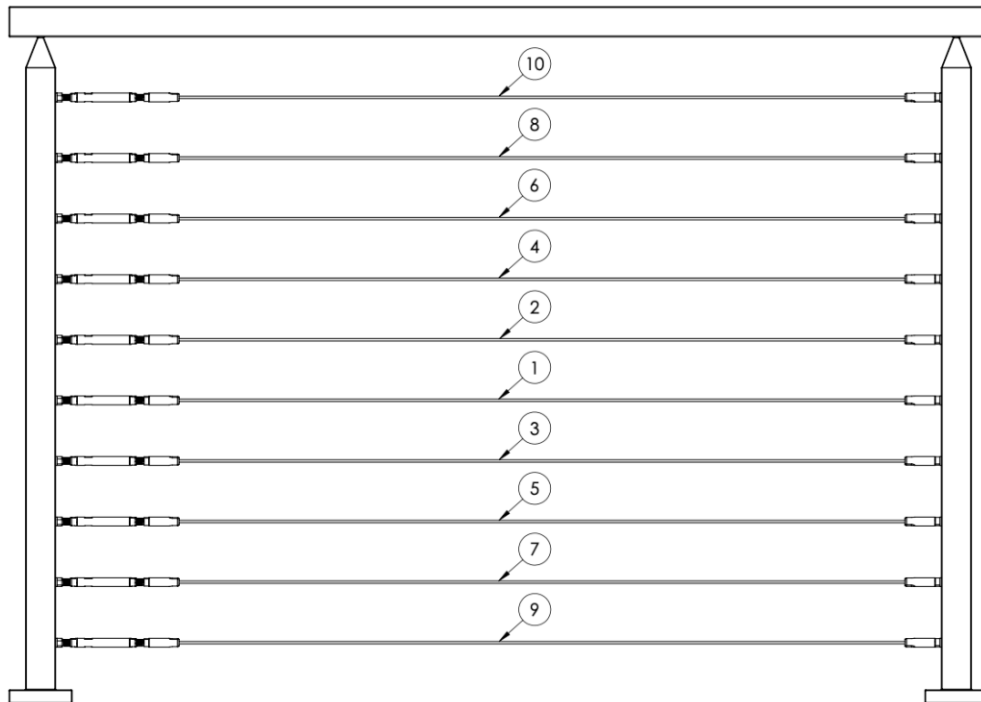
1. Cable Tension Meter Tool
2. Cable Cutter
3. 2 x 10mm wrench
4. High-Quality Electrical Tape

## Installation Guidelines

- 1) **Post and Handrail Installation:** Begin by installing the posts and handrails, ensuring all posts are properly leveled and aligned.
- 2) **Lubrication:** Apply WD40 inside the jaw latch mechanism of the Tensioners and Terminals. Utilize the provided Cable Release Tool to push the jaw and lubricate the inside spring.

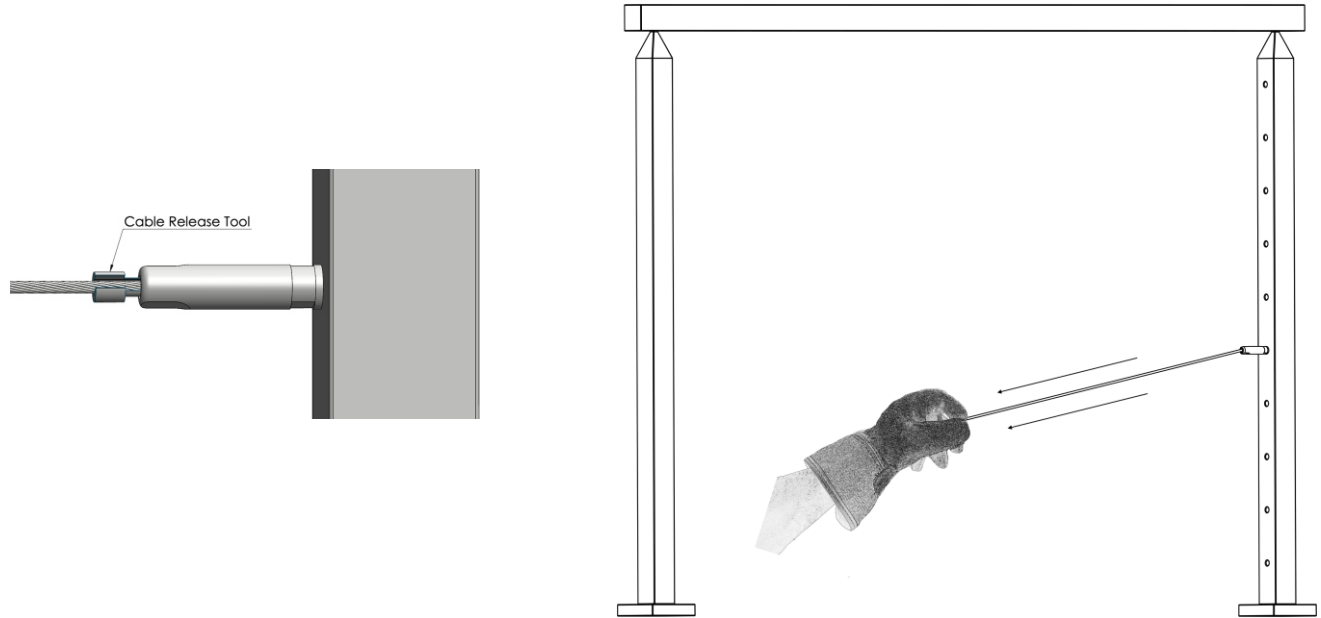


- 3) **Cable Run Definition:** Each cable run comprises a Tensioner on one side, a Terminal on the other side, and the Cable between them.
- 4) **Installation Sequence Guideline:** Start installing the middle cable run, working outward to the top and bottom alternatively.

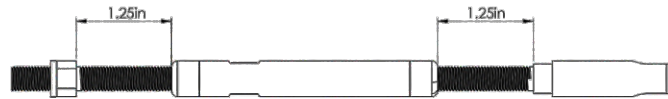


- 5) **Terminal Installation:** Use a 10mm wrench to install the Terminal, and employ the Curved Washer for round posts.
- 6) **Cable Cutting:** Measure and cut the cable. Wrap the section of the cable you intend to cut securely in high-quality electrical tape. This ensures the cable ends remain intact, preventing any single wires from shifting while being cut. Perform the cutting action swiftly and continuously; a slow or inconsistent motion may compress the cable instead of achieving a clean cut.

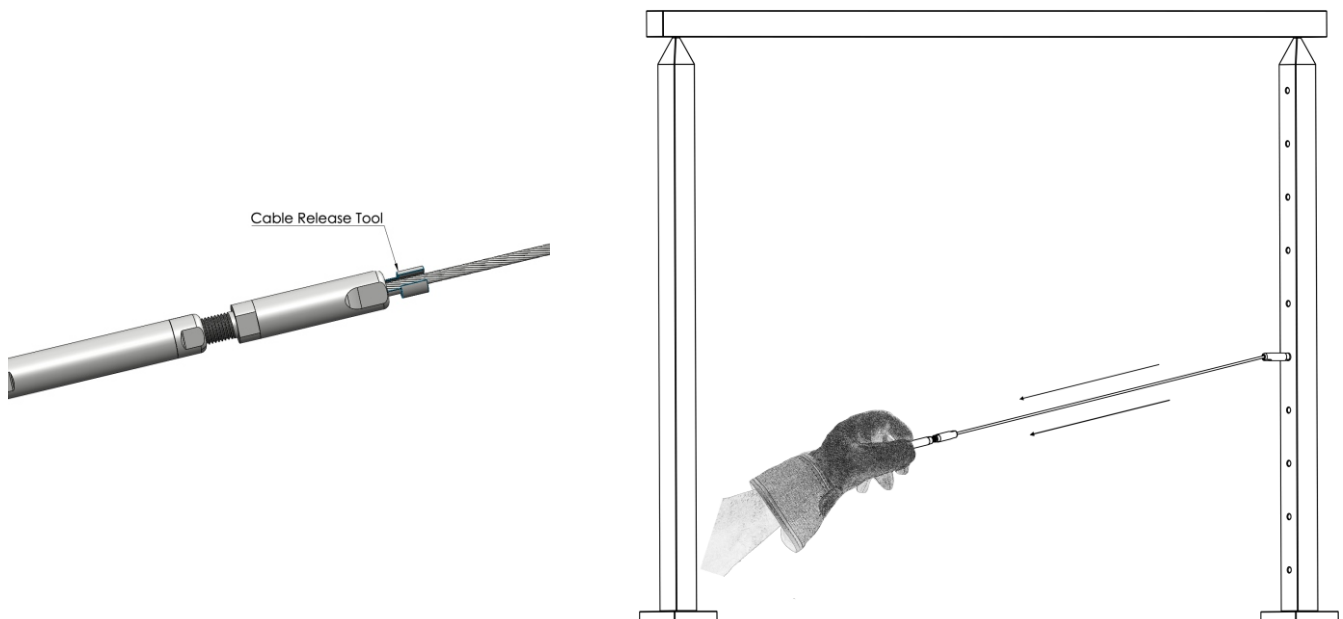
- 7) **Cable Attachment To Terminal:** Place the cable release tool into the fixed Terminal on the post to activate the jaw, subsequently, insert the cable. Once the cable is fully inserted, remove the cable release tool while keeping the cable pushed in. Grasp the cable in your hand while using protective working gloves, and then apply a sudden pulling force (a quick jerk) to activate the Jaws of the Press and Latch mechanism, securing the cable.



- 8) **Tensioner Preparation:** Unwind the turnbuckle of the Tensioner 1 1/4" from each side



- 9) **Cable Attachment To Tensioner:** Place the cable release tool into the unattached Tensioner to activate the jaw, subsequently, insert the cable. Once the cable is fully inserted, remove the cable release tool while keeping the cable pushed in. Grasp the Tensioner in your hand while using protective working gloves, and then apply a sudden pulling force (a quick jerk) to activate the Jaws of the Press and Latch mechanism, securing the cable.



- 10) **Tensioner Installation:** Secure the Tensioner to the post using a 10mm wrench, utilizing the Curved Washer for round posts.

11) **Tensioning:** Adjust the turnbuckle of the Tensioner with a 10mm wrench to achieve the desired tension. Ensure equal tension across all cables using a tension meter (Scale 20 for 1/8" cable, Scale 24 for 5/32" cable, approximately 200 lbs).

12) **Final Adjustment:** After achieving uniform tension across all cables, tighten the lock nuts of the Tensioners turnbuckles using two 10mm wrenches—one to hold the turnbuckle and the other to tighten the lock nut.

## Common Issues And Troubleshooting

**Long cable** - One common problem is cutting the cable too long. In this case, the cable tensioner doesn't have enough threads left over to tighten the cable. Use the release tool to take the cable out, and return to step 3.

**Cable pulling out** - Another common problem is the cable keep pulling out from the cable fittings. In this case, the jaws inside don't latch on the cable. Apply WD-40, and make sudden pulls to ensure the cable is latched. Repeat the same for the rest of the cables of this run.

**Tensioning** - The tensioners have a very high tensioning capability. The goal is to have equal tension force on all the cables. Over-tightening one cable will make the other cable loose. Be careful not to over tighten the cables. Use the supplied tension meter tool. Make sure as well that the top rail tubing is properly installed and solid.