

The Ultimate in Fall Protection

# LAD-SAF Cable Stop Kit

## Installation Procedure

- **1.0** This Instruction is provided by Capital Safety to allow installation of a supplemental Cable Stop fitting Located above the carrier clamp on LAD-SAF ladder safety systems. Installing the Cable Stop is not a Capital Safety mandatory procedure but may be conducted at the option of the system owner.
  - Although a supplemental Cable Stop is not required by Capital Safety, some system users have requested guidance in how to install a Cable Stop onto their LAD-SAF systems. These systems are often installed on very tall structures making pre-climb inspections difficult, or the structures may be located in remote locations or exposed to severe weather conditions, or the structures may be infrequently climbed or subject to potential tampering by others with access to the site. In such situations, the supplemental Cable Stop may provide system owners with added confidence that the system is ready for use.
  - Installing the Cable Stop does not void the Capital Safety warranty for the Lad-Saf System.

**CAUTION:** Read and understand these instructions before attempting to conduct this procedure. Failure to do so could result in an unsafe system.

- **1.1 GENERAL:** This procedure must be completed by a competent person. The procedure consists of a visual inspection of the Ladder Safety system and installation of the Cable Stop fitting. The Cable Stop Installation Kit (PN 6100344) includes a zinc plated copper cable stop, a tension indicator ring and a weather cap. Other system components may require replacement depending on the condition of those components. Contact capital Safety for a full list of LAD-SAF system components.
- **1.2 PRE-INSTALLATION VISUAL INSPECTION:** Prior to utilizing the Ladder Safety system or installation of the Cable Stop fitting, the Ladder Safety system must have recently been inspected (within the last year recommended) or, an inspection of the system must be conducted to determine if the system is in usable condition. The inspection points below provide a guideline for inspecting the Ladder Safety System. If the system fails inspection, do not use the system for fall protection, an alternative method of fall protection must be utilized. Visual aids such as binoculars, zoom lens camera, or a telescope may help facilitate inspection.

## **1.3 INSPECTION GUIDELINES:**

- A properly installed Ladder Safety System cable should be tensioned taught with no noticeable slack.
- Inspect system cable for kinks or other damage that may obstruct or interfere with free movement of the LAD-SAF climbing sleeve. Cable must not have broken wires or strands or areas of abrasive wear due to contact with the structure. Cable base metal must not show red rust or pitting.
- Top and bottom brackets must be secure to the structure with all fasteners in place and tight. System cable must be secured to the bottom bracket tension rod with both clamps. Brackets must not be rusted or show other signs of breakdown of corrosion protection.
- Ladder Safety cable path should be clear of any obstacles, equipment or tower accessories and should allow an unobstructed path for the system cable and for the climber to climb the tower.
- System cable should be secured to the structure by properly spaced cable guides (not greater than 40ft spacing).
- If the system fails the visual inspection the system owner must be notified that corrective action is needed.
- **2.0 CABLE STOP INSTALLATION PROCEDURE:** The Cable Stop installation is completed by installing a mechanically swaged Cable Stop to the system cable just above the carrier clamp located in the top bracket assembly. To accomplish this, the system cable must be disconnected at the bottom allowing access to the cable at the top bracket by lifting the cable and carrier clamp out of the bracket. A zinc plated copper cable stop is installed on the cable just above the carrier clamp using a hand operated swage tool. Following installation of the Cable Stop the system must be properly tensioned at the bottom connection.
- **2.1 EQUIPMENT:** The equipment needed to conduct installation of the cable stop includes a specific swage tool (DBI-SALA P/N 9600092 or Nicopress P/N: 3-F6-950) to achieve the finished specified swage size. The remainder of necessary equipment is illustrated in the procedure diagram.



## 2.2 CABLE STOP INSTALLATION STEPS:

- 1. Ascend the structure to the top bracket level and attach the cable grip several feet below the top bracket allowing sufficient room for the portable hoist to lift the system cable about 1ft (0.3m). Anchor the portable hoist above the cable grip using a sling or other anchor means of sufficient strength to allow lifting of the system cable using the cable grip. Note, the cable weight is approximately 25lbs (11kg) per 100ft (30m).
- 2. Disconnect the system cable at the bottom bracket by removing the nuts that secure the tension rod to the bottom bracket. Restrain the free cable end if needed to prevent damage to surrounding equipment or injury to personnel. Do not connect to the Ladder Safety System with the cable disconnected at the bottom.
- 3. Remove the weather cap from the top bracket. Using the hoist arrangement shown in the procedure diagram, raise the carrier clamp and cable out of the top bracket approximately 1ft (0.3m). Inspect the carrier clamp for corrosion or contamination. If the carrier clamp is in poor condition it should be replaced prior to installation of the cable stop. Inspect the elastomer energy absorber for damage or cracks, and replace if needed. Note, replacing the carrier clamp or elastomer energy absorber may require cutting the cable to remove the old components. Check that there is between 1 and 2 inches (25-50mm) of cable extending above the carrier clamp. If there is less than this amount, the carrier clamp must be moved down the cable until the correct amount of cable is exposed. Do not extend more than 1 to 2 inches (25-50mm) of cable through the clamp or it will not allow the weather cap to fit properly onto the top bracket.
- 4. Install the cable stop onto the cable above the carrier clamp cable such that approximately 1/4 1/2 inches (6-12 mm) of cable is extending above the stop. Crimp the cable stop using the swaging tool. The entire length of the cable stop must be swaged. Using a caliper, inspect the cable stop finished size opposite the swage flash. This dimension should be 0.595 inches (15.1mm) or less.
- 5. Using the portable hoist, lower the system cable and seat the shock absorber and carrier clamp back into the top bracket. Make sure the cable bushing on the shock absorber extends through the cable hole at the bottom of the top bracket tube. Remove the cable grip from the system cable and install the new weather cap. At this point the system may be reconnected at the bottom bracket and tensioned, using the tension ring indicator provided in the kit. Once tensioned, make sure the system cable is secured in the cable guides. Do not use the system for fall protection until properly tensioned.



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