



North Safety Products Ltd.
26 Dansk Court
Toronto, Ontario
Canada M9W 5V8

Telephone: (800) 836-8006
Fax: (800) 585-2354
saf-t-climb@northsafety.ca
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PRODUCT ADVISORY

BREAKAGE OF CARABINER PINS IN NORTH SAFETY PRODUCTS SAF-T-GRIP SLEEVES

- A broken carabiner pin WILL NOT keep the Saf-T-Grip sleeve from preventing a fall -
- Users SHOULD NOT detach their safety harness from the carabiner if the pin breaks –
- Correct use of the Saf-T-Climb system can reduce the likelihood of pin breakage -

North Safety has received reports that the pin attaching the carabiner to the Saf-T-Grip sleeve has occasionally broken in ordinary use. The pin is shown in Diagram A.

The pin in the carabiner assembly is part of an energy management system engineered into the Saf-T-Grip sleeve for safety purposes. It is *intended* to break if a fall occurs, permitting deployment of the force-limiting energy absorber that is attached at one end to the carabiner and at the other end to the D-ring on the sleeve. The energy management system engineered into the Saf-T-Grip sleeve will reduce deceleration forces on the user's body when the sleeve arrests a fall and, by reducing those forces, will reduce the severity of injuries they might otherwise cause.



Diagram A:



Breakage of the pin will not prevent the Saf-T-Grip sleeve from arresting a fall. It does, however, prevent normal use of the system. *Users must be clearly instructed that, if such an event occurs, they should not detach their safety harness from the carabiner unless they are near the ground or in some other safe location.* If they detach their harness from the carabiner they will be without any fall protection and could be injured or killed in a fall. A user who experiences such an occurrence should instead descend the ladder using the following method:



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- First, stop climbing. Keep three-point contact with the ladder, that is, both feet and one hand in contact with the ladder;
- Grasp the sleeve with the free hand and release its grip on the rail;
- Slide the sleeve down the rail a convenient distance;
- Climb down the ladder a corresponding distance;
- Repeat these steps until reaching the ground.

North Safety is conducting its own evaluation and testing to identify the root cause of the pin breakage and how to prevent it in the future. North Safety believes pin breakage is caused by cyclic loading that results from unusually frequent engagement of the sleeve with the rail. One cause for frequent engagement of the sleeve with the rail is users' attempts to climb too fast. Another is use of the Saf-T-Grip sleeve with a safety harness that is not equipped with an attaching D-ring near the level of the user's navel. Engagement of the sleeve with the rail should occur only infrequently if proper climbing technique is used as described in the training DVD and in the instructional manual. North Safety has also learned some users may be misusing the system to suspend themselves. To reduce the likelihood of pin breakage until North Safety has identified a permanent remedy for the problem, users are strongly encouraged to use the system as described in the instructional manual and as illustrated in the photographs and DVD that accompany this Advisory. Users should be told that:

- The Saf-T-Grip sleeve is designed for use *only* with harnesses with an attaching D-ring near the user's navel. It *should not be used* with harnesses equipped with a D-ring at chest level or anywhere other than near the navel. Use with improper harnesses will likely cause frequent engagement of the sleeve with the rail and may result in breakage of the pin. *Even more important, using an improper harness may prevent proper operation of the Saf-T-Climb system if a fall occurs and cause serious injury or death.* North Safety strongly recommends the Saf-T-Grip sleeve be used *only* with North Safety harnesses.
- If the Saf-T-Grip sleeve engages the rail while the user is climbing up a ladder, the user should not try to force the sleeve to continue sliding. Trying to force the engaged sleeve to move will put damaging stress on the pin in the carabiner and may also damage the metal bearings in the sleeve. Instead, the user should simply lower himself slightly to disengage the sleeve's grip on the rail and then resume climbing normally. If the sleeve engages while the user is climbing down the ladder, the user similarly should not try to force it. The user should simply raise himself slightly to free the sleeve and then continue descending normally.



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- Users *should not* suspend themselves in the Saf-T-Climb system. This is a misuse for which the system is not designed and puts damaging stress on components of the system, increasing the likelihood of breakage. The Saf-T-Climb system is designed to permit a user to rest while climbing, but a resting user must keep both feet on the ladder and maintain a grip on the ladder with at least one hand.

North Safety wishes to remind you how important it is to install the Saf-T-Grip sleeve on the rail right side up. A Saf-T-Grip sleeve installed upside down will not prevent a fall. There are warnings on the underside of the sleeve to alert users not to install it with that side up and a small moveable bar attached to the D-ring of the sleeve is designed to prevent upside-down installation. North Safety recommends this bar be inspected before each installation of the sleeve on a rail to assure it has not been damaged in a way that interferes with proper operation.

For more information on proper climbing and inspection techniques, consult the insert provided with this Advisory, the accompanying DVD, and the instruction manual. When North Safety has completed the work necessary to identify the root cause for the pin breakage and determined the best way to prevent such breakage, it will be in touch with you by means of a further Advisory. In the meantime, do not hesitate to direct any questions concerning this matter to saf-t-climb@northsafety.ca or (800) 836-8006.