



Rejuvenation Instructions Live-Front Access Interface Installation & Operation

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- Ultrinium™ sustained pressure injection method (U.S. Patent 7,615,247)
- Ultrinium™ formulation optimization injection method (U.S. Patent 7,611,748)
- Injection Adaptor (U.S. Patents 7,195,504, 7,538,274 and 7,683,260)
- Perfectium™ single visit, single switch injection (U.S. Patent 7,353,601)
- Formulation of Ultrinium™ & Perficio™ components (U.S. Patent 7,658,808, 7,700,871 and other patents pending)
- Predicting performance of Electrical Power cables (U.S. Patent 7,643,977, 7,700,871 and other patents pending)
- N-Rex™ submarine cable injection process (U.S. Patent 7,976,747)
- N-Ter™ injection or Novinium thermally enhanced rejuvenation (patent pending)
- Reticular Flash Preventer (RFP) provides safer operation of conventional injection elbows (patent pending)

Version 20120309

LFAI Installation and Removal



Caution: Working around energized high-voltage systems may cause serious injury or death. Installation should be performed by personnel familiar with good safety practice in handling high-voltage electrical equipment. De-energize, test and ground all electrical systems before handling the cable or accessory, or installing Terminator Fluid Injection Caps or other components.



DANGER

All apparatus must be de-energized during installation of part(s). Removal must be done using a hotstick.

Do not energize the injected cable before reading this NRI in its entirety.

Do not touch or move energized products by hand.

Inspect parts for damage, rating and compatibility with mating parts.

This product should be installed only by competent personnel trained in good safety practices involving high voltage electrical equipment. These instructions are not intended as a substitute for adequate training and experience in such safety practices.

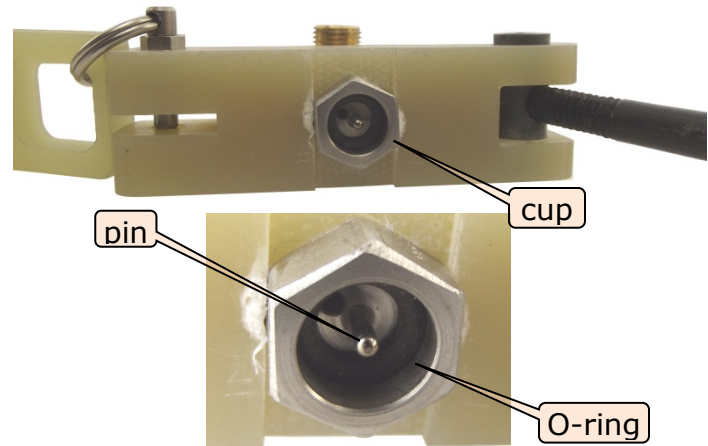
Direct or close proximity contact with any of the following in an energized system can result in electric shock, which will cause serious or fatal injury: Terminator Fluid Injection Cap (TFIC), Live-Front Access Interface (LFAI), tubing, tank, cable, fluid injection tube, and fluid injection collection containers and fittings.

If fluid has been injected into the cable, there may be considerable pressure, which could release when the Quick Disconnect Injection Tool or Live Front Access Interface is removed. Always wear approved eye protection when installing or removing this tool.

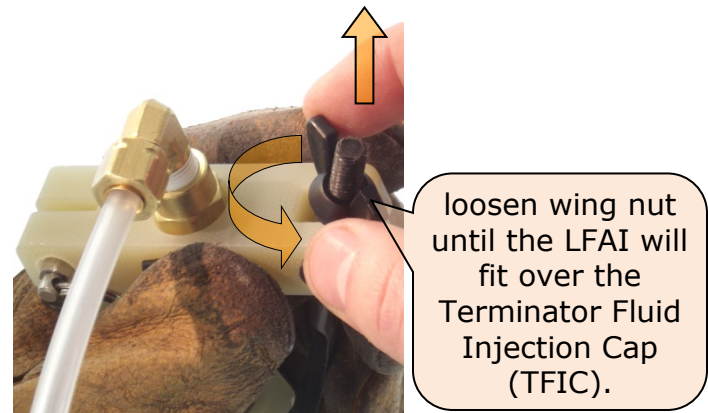
These instructions do not attempt to provide for every possible contingency.

Failure to follow these instructions could result in damage to the product and serious or fatal injury.

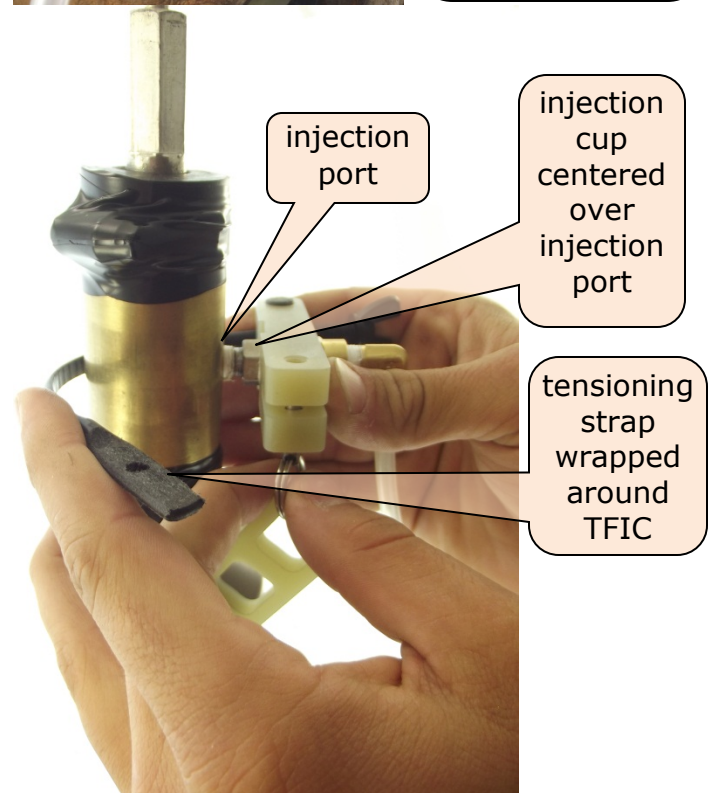
1. Inspect the injection cup of the LFAI to ensure that the O-ring seal and pin are present and do not show any signs of damage. Replace if necessary.



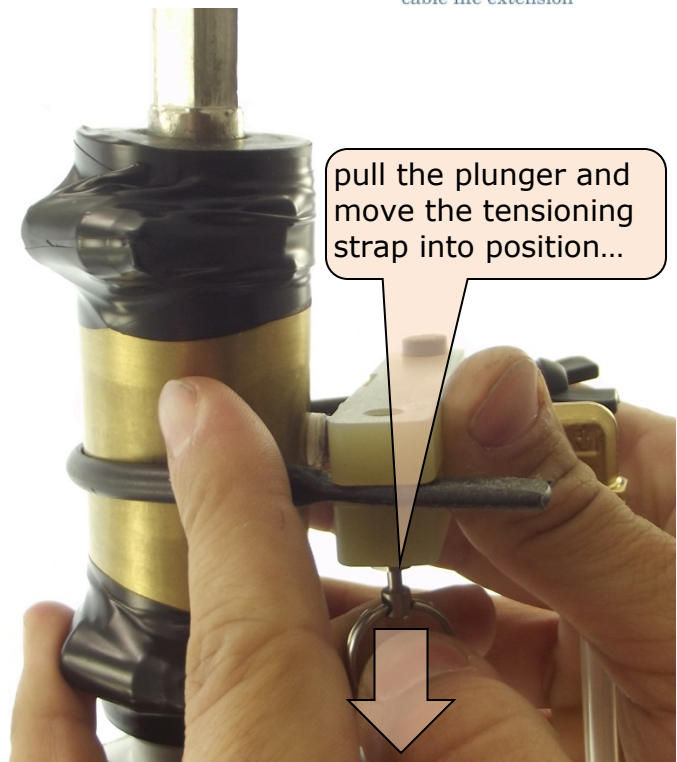
2. Back off the wing-nut until the tool will easily fit around Terminator Fluid Injection Cap (TFIC).



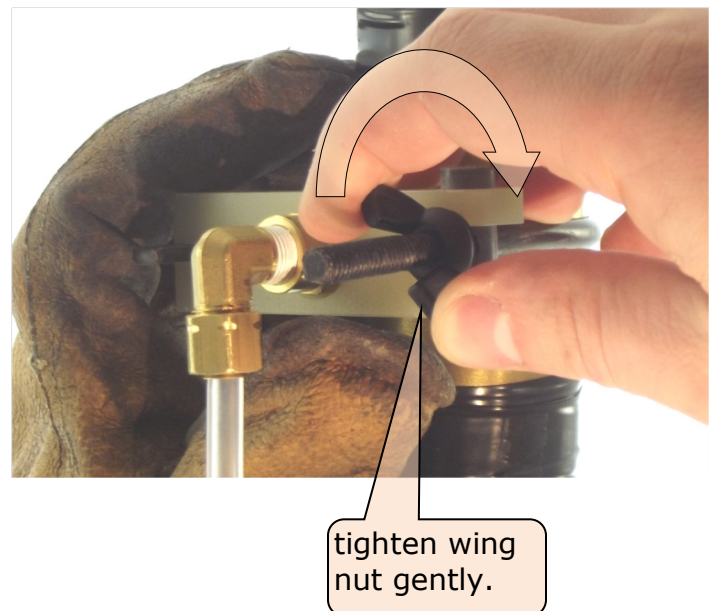
3. Place the Live Front Access Interface so it is centered over the injection port on the TFIC, then press the pin into the injection port. Wrap the tensioning strap around the TFIC.



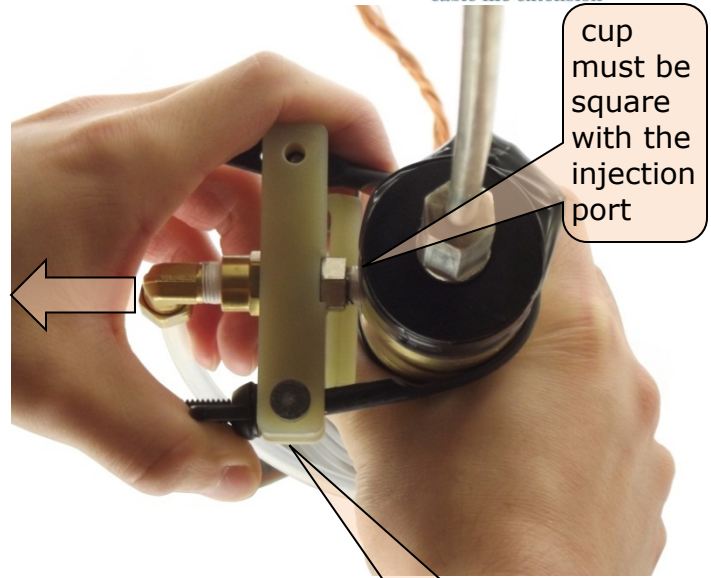
4. While holding the tool in position, pull the spring plunger straight out. Place the release bolt in the slot with the strap wrapped around the TFIC. Release the plunger so that the strap is held in place.



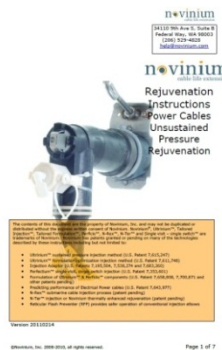
5. Lightly tighten the wing nut on the tensioning rod while holding the cup in position over the injection fitting on the TFIC. Do not over-tighten the wing nut or the tool will be damaged.



6. Check the cross bar for proper tightness; tugging on the crossbar should not cause separation of the cup from the injection port if the tool is correctly tightened. Ensure that the tool is squarely aligned with the injection port.

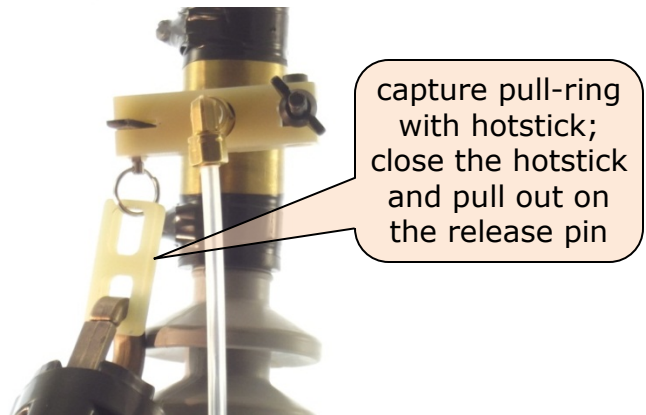


7. Inject the cable per [NRI 62: Unsustained Pressure Rejuvenation](#).



pulling the cross bar should not make the cup separate from the injection port

8. After injection is complete, use a hotstick to pull the spring plunger and release the LFAI from the TFIC. Keep the LFAI away from all energized parts while removing it from the TFIC.



9. Bring the LFAI away from the live-front using a hotstick. Use caution to avoid contact with energized parts. Wipe all residual fluid off of the LFAI when finished.

