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SSE Micro-Puller Installation

(U.S. Patent #5,222,697)

- o The Micro-Puller is a self contained activation device, designed to be used with the SSE range of Altitude Sensing Devices.
- o The Micro-Puller is a pyrotechnic activated piston. When activated, the Micro-Puller will extend by 25 mm (0.984"). The foot is reacted by the closing loop and therefore, the pin will be pushed backwards by the "lug" as shown in figure Fig. 1.

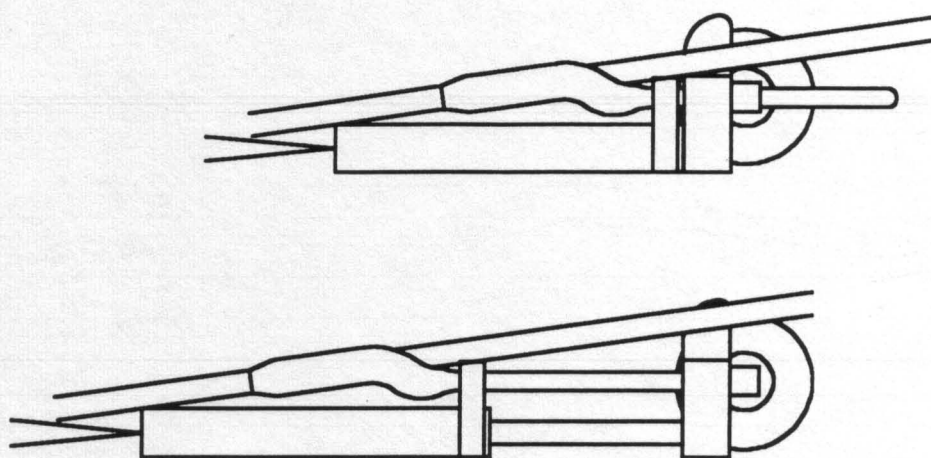


Fig. 1

SSE Micro-Puller in normal and actuated positions

The Micro-Puller is a "one-shot" device, it must be discarded when fired.

Riggers: We strongly suggest that you cut the cable off a fired Micro-Puller. This will ensure that it is not fitted to a rig by mistake.

WARNING

Do NOT fit the Micro-Puller to any container without prior written approval from the manufacturer of the container.

Follow the container manufacturers instructions when installing the Micro-Puller.



Installation:

- o Every Micro-Puller is shipped with a gage to check that the pin is suitable for use with a Micro-Puller. The gage should have a RED color code.

Slide the gage over the pin, *chamfered end first* as shown in the figure Fig. 2. The gage must slide freely over the pin. Slide the gage up to the shoulder of the pin. If the gage becomes stuck on the pin before reaching the shoulder it is probable that the pin is bent. Do not force the gage onto the pin.

The pin MUST NOT protrude out of the end of the gage.

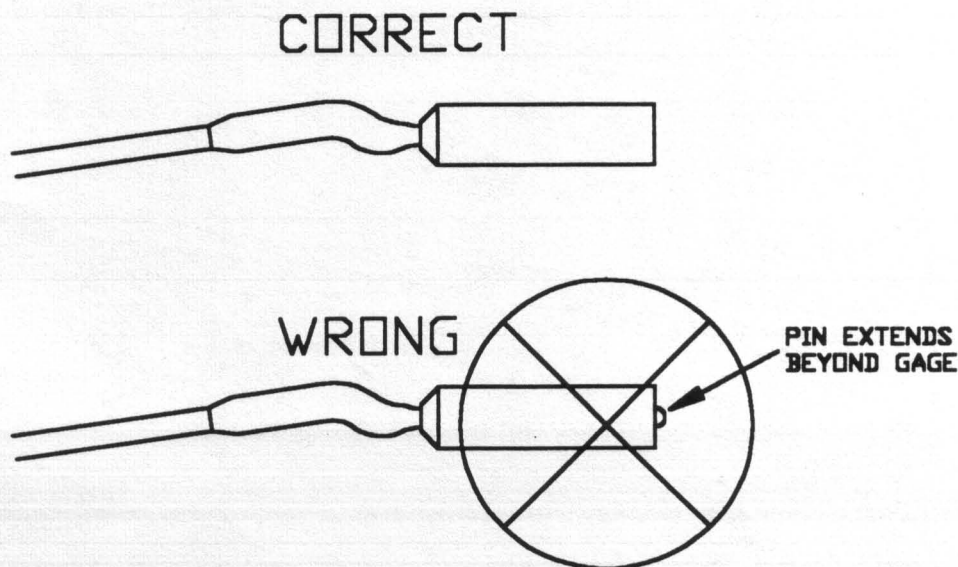


Fig. 2

Checking the pin with the gage supplied.

WARNING

Do not install the Micro-Puller if either the pin extends beyond the end of the gauge, or if the gage is not free to slide on the pin.

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- o The piston and foot are retained in the retracted position by a metal ring which is designed to shear when the unit is fired, the ring shears at approximately 20 lbs.

Hold the Micro-Puller metal body (NOT the electrical cable) and try to extend the Micro-Puller piston and "foot" with a force of approximately 5 lbs, it should NOT move. *If you are able to extend the foot it means that the unit has been previously fired - DO NOT install it.*

- o Slide the Micro-Puller onto the pin. The Micro-Puller must be free to slide on the pin. When the pin is held vertically, the Micro-Puller should fall off the pin. The Micro-Puller will extract a bent pin, however, the Micro-Puller must NOT be fitted to a bent pin.
- o Fit one micro-puller to each pin on the container to be activated. i.e. One Micro-Puller for a single pin container, two Micro-Pullers for a two pin container etc.

WARNING

Do not attempt to pull two pins with a single Micro-Puller.

- o The pin must be fully engaged in the Micro-Puller, and the foot of the Micro-Puller seated up against the closing loop as shown in the previous figure.
- o Check the following on any new installation:
 - The Micro-Puller stroke of 25 mm must be sufficient to pull the pin completely clear of the loop. i.e. the pin must extract into the Micro-Puller foot.
 - The Micro-Puller must slide freely on the pin and must not interfere with a manual ripcord activation.
 - The Micro-Puller must not interfere with any other equipment, e.g. RSL installations.



- o Plug the Micro-Puller into the SSE Altitude Sensing Device (Mk2000, Mk2100, or MARS FF-3).
- o The calibration and test sequence for the Micro-Puller is identical to the standard SSE Pin-Puller. Follow the directions in your SSE Automatic Activation Device operation and maintenance manual.
- o The Micro-Puller should be inspected prior to every jump.

Inspect the area where the electrical cable joins the metal body. The heatshrink cover should not be cracked or damaged in any manner.

WARNING

Inspect the area where the electrical cable joins the metal body of the Micro-Puller. Do NOT use the system if there is any sign of cracking of the protective heatshrink cover. This may indicate that the electrical connection has been damaged.

If, after reading these installation instructions and warnings, you do not wish to install a Micro-Puller, you may return the device to SSE Inc. for a full refund of your purchase price.

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If you have any questions, please call SSE Inc. at (609) 663 2234.

Thank you for buying an SSE product !