



(9-18-21 updated instructions)

Piranha User Instructions

Features:

Precision Machined all Stainless Steel Construction!

Compact size- 3/8" x 2"

Lightweight- about 22gms

Uses a specially designed line cutting piston as the powder measure!

Lifetime Tech Support!

Lifetime Unconditional Warranty!

Parts List:

1 - SS Housing

1 - SS Line Cutter/Powder Measure Piston

1 - SS Cap Screw

1 - pk 004-70 O-rings

1 - pk Zip-ties (Cable ties)

1 - 1/16" Long Allen wrench for disassembly

Cotton Swabs (Q-tips)

Powder Vial

1 - Container TR Lube

(Warranty is simple: you break it, we will fix or replace it at no charge to you other than postage!)



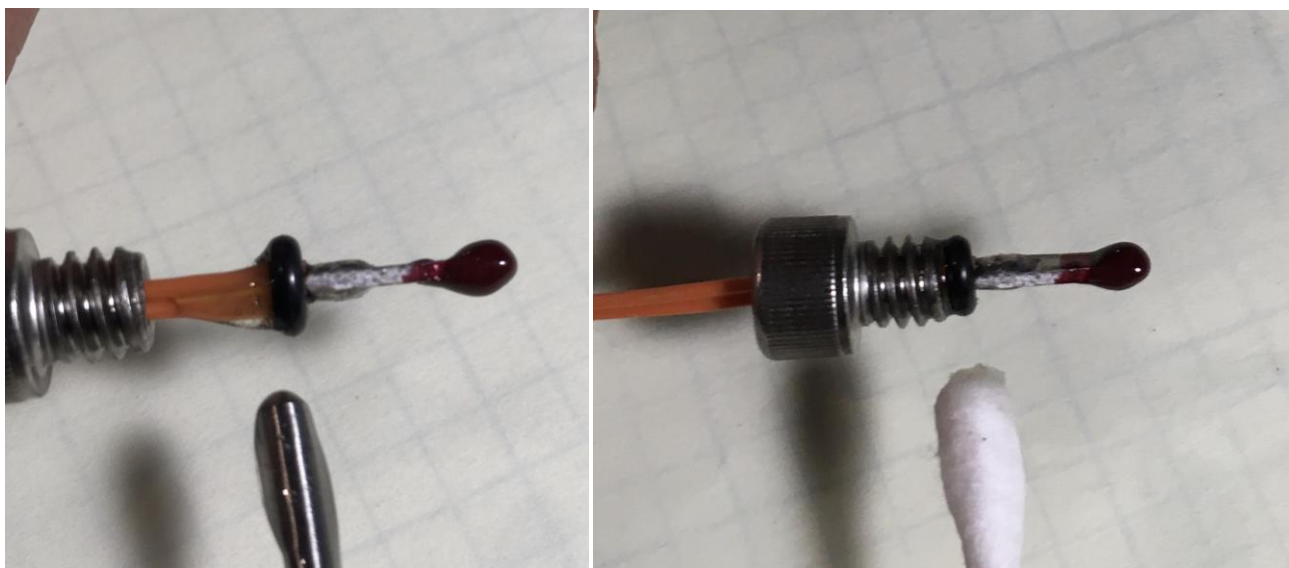
Dual Piranha Line Cutters Shown Above (Supplied lube not shown)

Step 1 - Prepare the E-match/Cap Screw

Using the supplied lube, thoroughly lube both ends of the Allen cap screw
(Hint: Don't be stingy with the lube!)



Remove the protective plastic cover from the e-match
Slide an o-ring over the wire and up to the e-match head
Slide the wire into the Cap Screw to 1/2 or 3/4 inch or so of the o-ring touching the cap
Add a dab of quick set epoxy to the wire between the o-ring and the cap
Pull the e-match so that the o-ring is snug against the cap
Use Q-tip to wipe excess epoxy away from the threads and set aside



Step 2 - Prepare the cutter mouth and your parachute

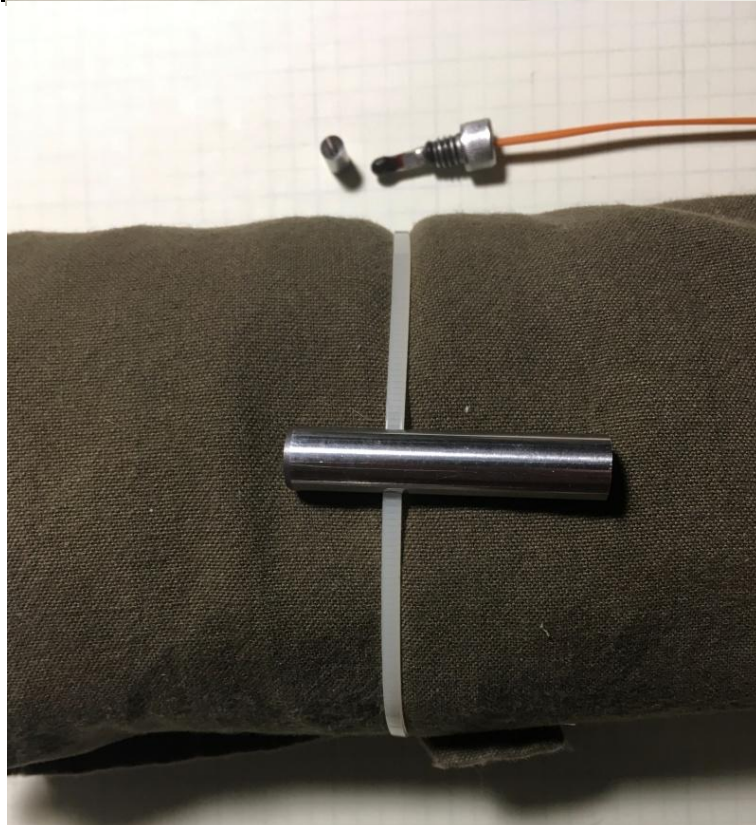
Wipe a small amount of the supplied lube to the mouth of the cutter body (**This is important!**)

Wrap your packed parachute in a protective fabric

Thread Zip tie through cutting holes on the Piranha

Wrap Zip tie securely around wrapped parachute

Note: An alternative method would be to completely assemble the Piranha ahead of time.)



Step 3 - Add powder

Note that the actual cutter has a larger cavity machined into one end
Completely fill this opening with 3F or 4F black powder (4F preferred)

Drop powder filled cutter into the SS Housing

(IMPORTANT Note: If you prepare the cutter exactly as shown here, including the sealing of the e-match with epoxy and adding the lube to the mouth of the cutter body, this device is VERY powerful for its small size! If you do not epoxy the wire, the device may still work but much of its cutting power will be exhausted out the wire hole rather than to the cutter. If you fail to add the lube to the case mouth the device may FAIL to cut all together! If this device is prepared as directed, NO ADDITIONAL PYRO IS NECESSARY!)



Step 4 - Finish Assembling Cutter
Insert pre-assembled Cap Screw Assembly
Tighten hand tight only
Connect to altimeter



Plain talk about powder

Black Powder is the only pyro powder that is recommended for use in the Piranha. The best choice is 4F BP or the BP that is supplied with the smaller Aerotech motors for motor deployment. This appears to be 4F granulation or at least very similar. An alternate choice would be to use 3F BP. Triple Seven (Triple 7) has been thoroughly tested and was found to be inconsistent in results when using the cutter piston opening as the powder measure. The reason for this is that there is not enough back pressure to allow Triple Seven to burn rapidly enough for reliable function. This said, Pyrodex would be worse as it requires even more back pressure to burn properly. One could use Triple Seven (Not recommended) and increase the amount of powder until consistent results were achieved, but this would defeat the design intent of using the specially designed cutter piston opening as the powder measure! So just use black powder!

After use Disassembly & Cleaning
(9-18-21 Updated cleaning instructions will soon follow...)

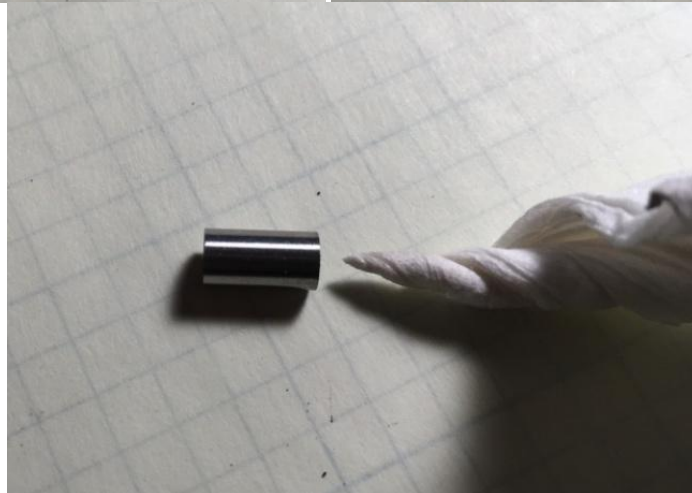
Step 1 Disassemble

Disassemble completely (Do not remove the small o-ring that is inside the SS Housing)
Use the supplied Allen Wrench to push out the Cutter piston



Step 2 Rinse & Clean

Wash all parts in hot water
Swab the inside of Piranha body with cotton swab while still wet
Swab again to dry and remove remaining residue
Roll tissue to a point to thoroughly clean Cutter cavity



Step 4 Re-assemble for later use

Make sure all parts are dry before re-assembly!

The o-ring that goes on the e-match may be cleaned and re-used many times before replacement.

The o-ring that is inside the unit may not last very long and may need to be replaced if it is seen protruding from the vent hole at the bottom of the device after use.

To remove the o-ring inside the unit for inspection, use a 3/32" Allen wrench (not included) to push the o-ring out. An alternative method would be to use an air hose to spit it out!

Re-install this o-ring using the flat side of a 3/16" drill bit (or a 10-24 bolt) to push the o-ring completely to the bottom of the device after lubing the inside of the body with the supplied lube.

The o-ring found inside the device is the same as the o-ring that is used to seal the e-match wire and replacement o-rings are included.

