

LOAD-RANGER® FLEX-LT™

Maintenance Manual - Level 1



SAFETY ALERT MESSAGES

⚠ WARNING

Carefully read and fully understand this manual prior to operating, maintaining or testing this device. Improper operation, handling or maintenance of this device can result in death, grievous personal injury and or equipment damage.

⚠ WARNING

Only trained and qualified personnel should operate, inspect and maintain this device.

DISCLAIMER

Utility Solutions, Inc. recommends the following procedure for disassembly and inspection for all Load-Ranger® FLEX-LT™ tools to be performed every 2 years. Prior to operating this tool, thoroughly read and fully understand the contents laid out in the Operation Manual which is separate from this document and can be found on our website, www.utilityolutionsinc.com.

This manual is not intended to be a substitute for adequate training and experience in safety procedures when operating this type of equipment. Where a discrepancy exists, follow the procedures set forth by your employer.

INSPECTION REMINDER STICKER

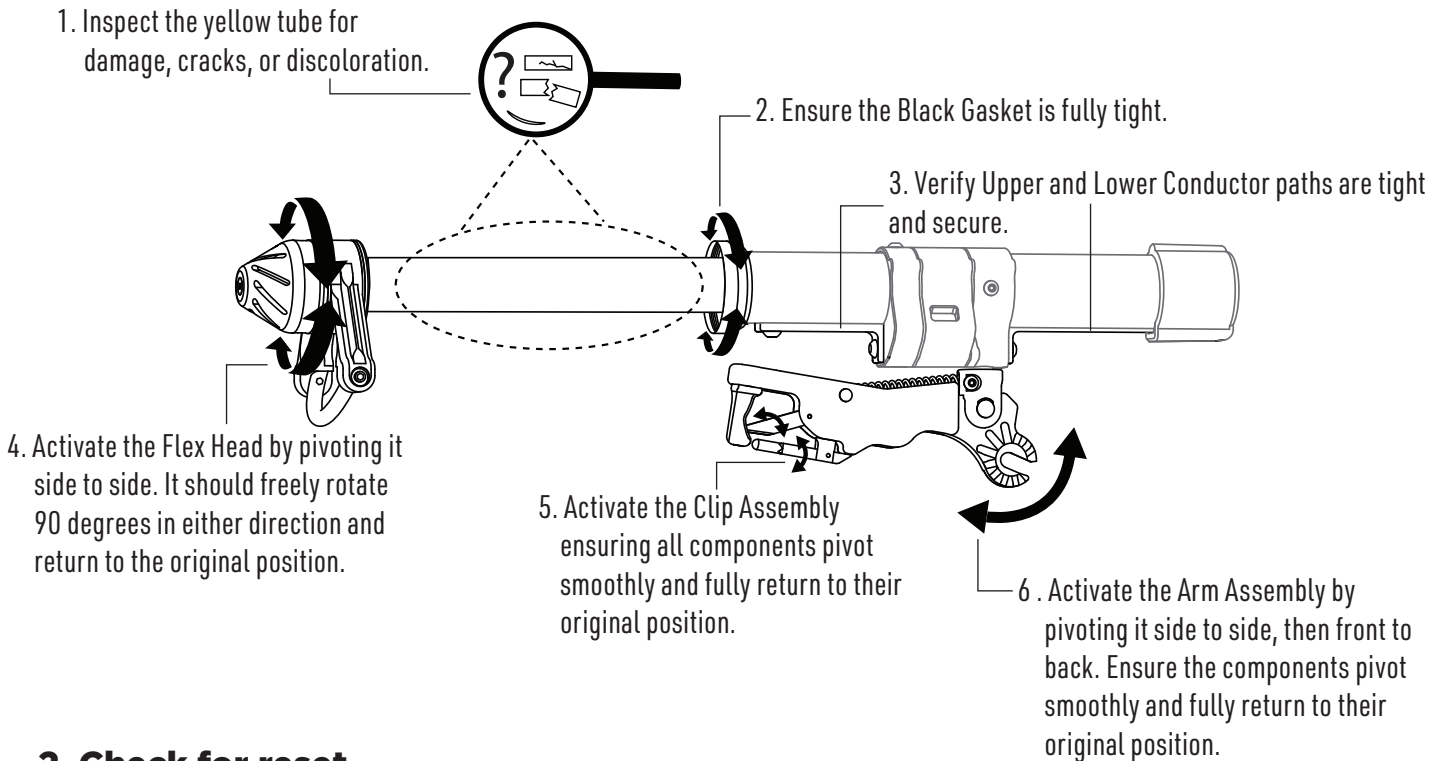
All Load-Ranger® FLEX-LT™ tools ship with an Inspection Reminder Sticker. Load-Ranger® tools should be disassembled and inspected every 2 years in accordance with the date stamped on the sticker.

The sticker should be replaced after inspection. To reorder, call Utility Solutions, Inc. at 828-323-8914 and reference part number B-02373.

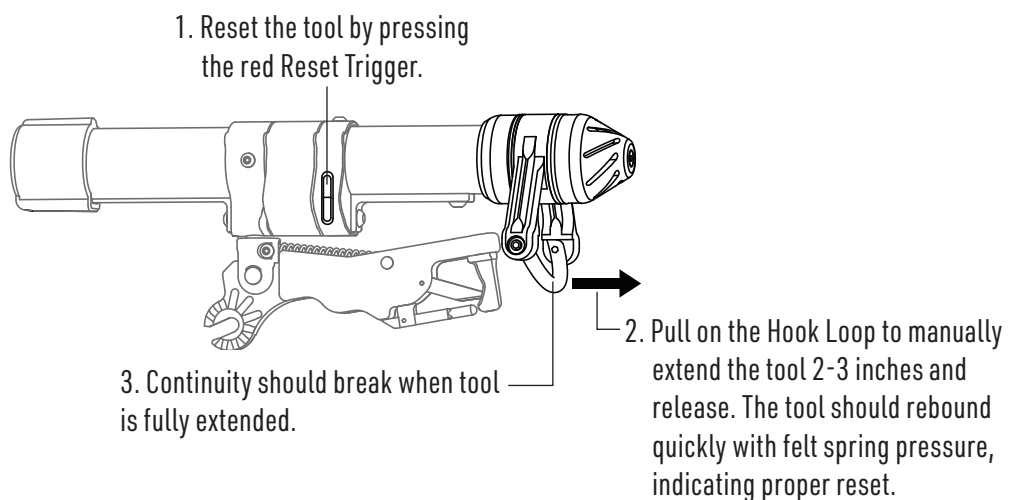
INSPECTION REMINDER	
Recommended Inspection	
TWO YEARS FROM DATE SHOWN	
(See Maintenance Manual For Details)	
MONTH	
<input type="checkbox"/> 1	<input type="checkbox"/> 2
<input type="checkbox"/> 3	<input type="checkbox"/> 4
<input type="checkbox"/> 5	<input type="checkbox"/> 6
<input type="checkbox"/> 7	<input type="checkbox"/> 8
<input type="checkbox"/> 9	<input type="checkbox"/> 10
<input type="checkbox"/> 11	<input type="checkbox"/> 12
YEAR	
<input type="checkbox"/> 2023	<input type="checkbox"/> 2025
<input type="checkbox"/> 2024	<input type="checkbox"/> 2026
B-02373	

Utility Solutions, Inc. recommends performing the following Field Inspection Procedure prior to each use, as well as before and after teardown and reassembly as per this manual.

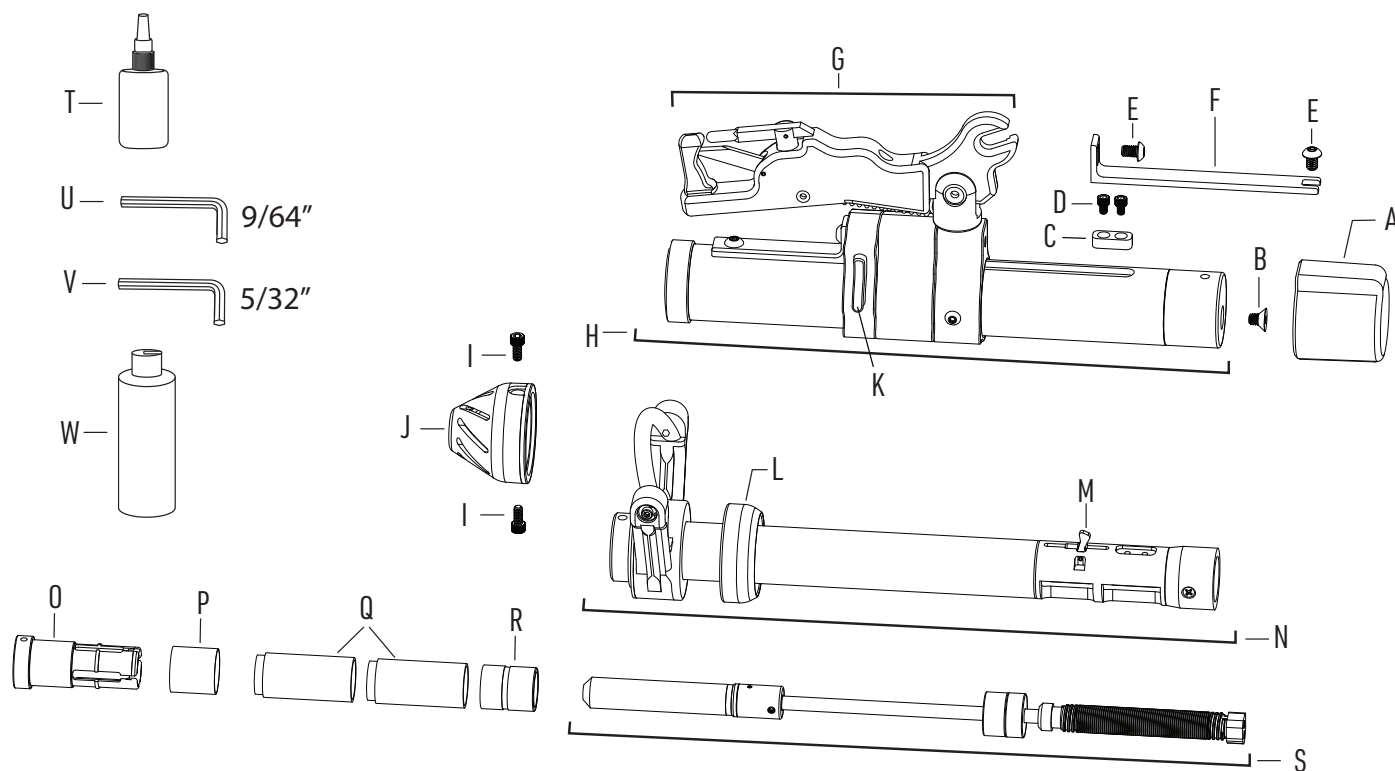
1. Fully extend the tool.



2. Check for reset.



For immediate assistance or help with this manual, please call Utility Solutions, Inc. at 828-323-8914.



A - Rubber End Cap
Item # C-02218

B - 1/4"-20 x 3/8" Flat Head Screw
Item # B-02072

C - Guide Pin
Item # C-02194

D - 8-32 x 1/4" Socket Head Cap Screws
Item # B-02073

E - 1/4"-20 x 5/16" Button Head Screws
Item # B-02390

F - Lower Conductor Path
FLEX-1: Item # C-02188
FLEX-2: Item # C-02189

G - Arm Assembly

H - Black Tube Assembly

I - 10-24 x 7/16" Socket Head Cap Screws
Item # B-02071

J - Muffer Cap Assembly
Item # P-00843

K - Reset Trigger

L - Black External Gasket

M - Load Break Trigger

N - Yellow Tube Assembly
FLEX-1: Item # P-00842
FLEX-2: Item # P-00851

O - Female Contact
Item # C-02212

P - Arc Shim
Item # C-00509

Q - Pink Arc Snuffers
FLEX-1: Item # C-00554 (x2)
FLEX-2: Item # C-00554 (x4)

R - Plastic Spacer
FLEX-1: Item # C-00528
FLEX-2: Item # C-00558

S - Probe Shaft Assembly
FLEX-1: Item # P-00841
FLEX-2: Item # P-00849

T - Loctite® Threadlocker Red 263

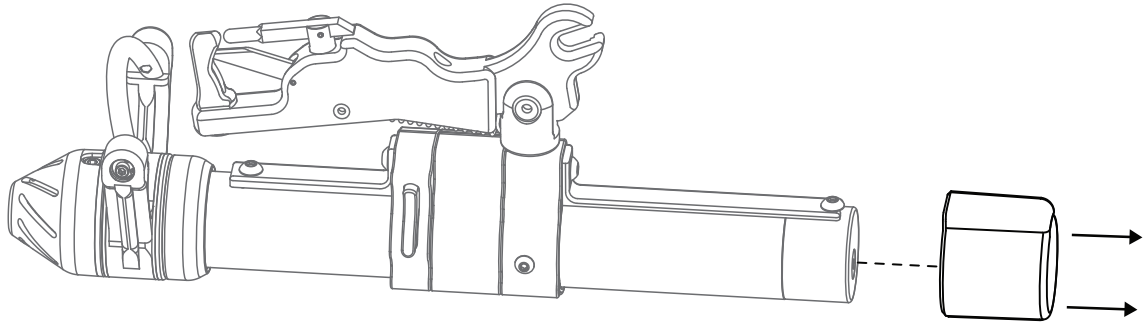
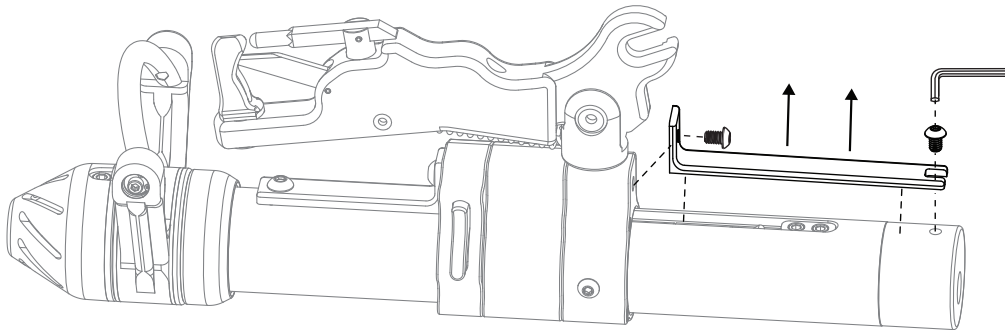
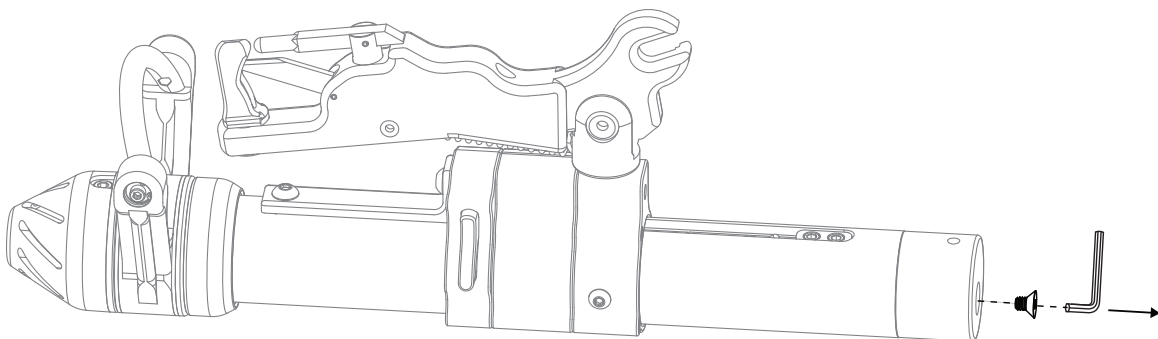
U - 9/64" Hex Wrench

V - 5/32" Hex Wrench

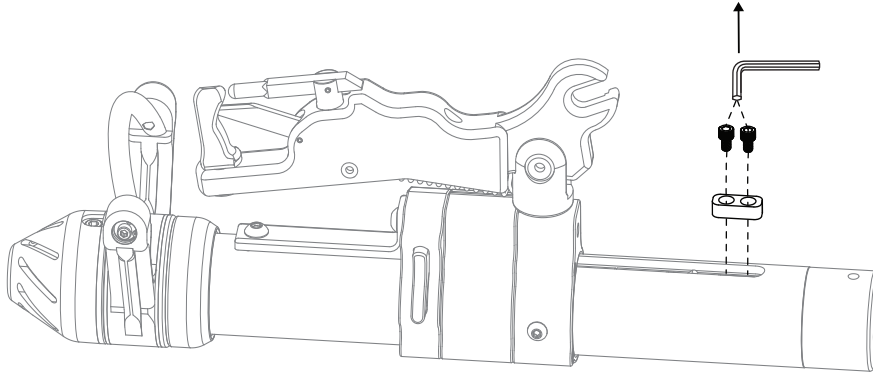
**W - Load Break Tool Fiberglass
Cleaner / Wax**
Item # B-00159

Ensure all components remain clean and free of oils, greases, soot etc. If necessary, clean parts with warm soapy water.

DISASSEMBLY INSTRUCTIONS

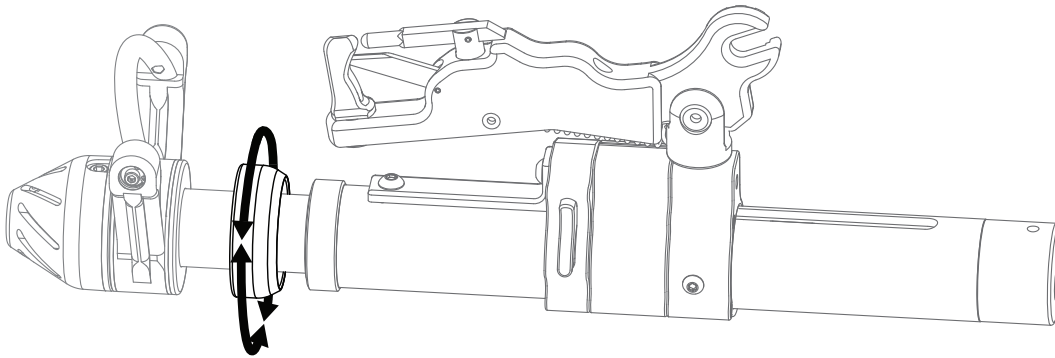
Step One Remove the **Rubber End Cap**.**Step Two** Using the 5/32" hex wrench, remove the **Lower Conductor Path**.**Step Three** Using the 5/32" hex wrench, remove the **Probe Shaft Assembly** fastener.

Step Four Using the $9/64$ " hex wrench, remove fasteners and the **Guide Pin**.

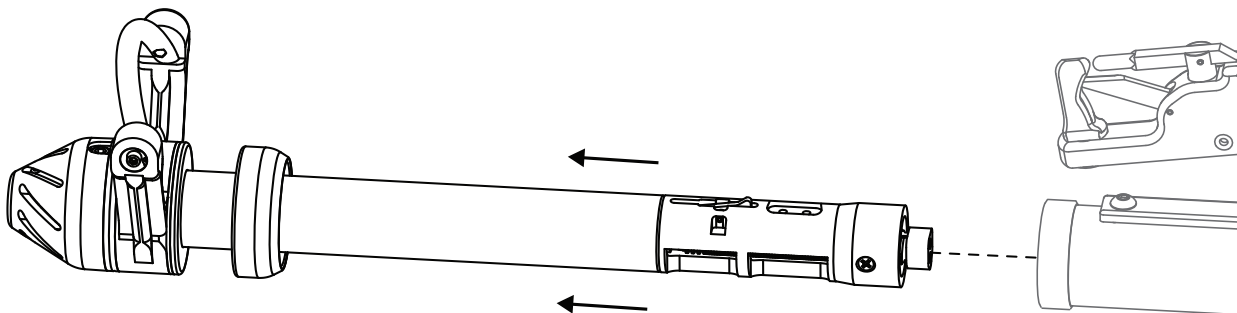


Step Five Unthread the **Black External Gasket**.

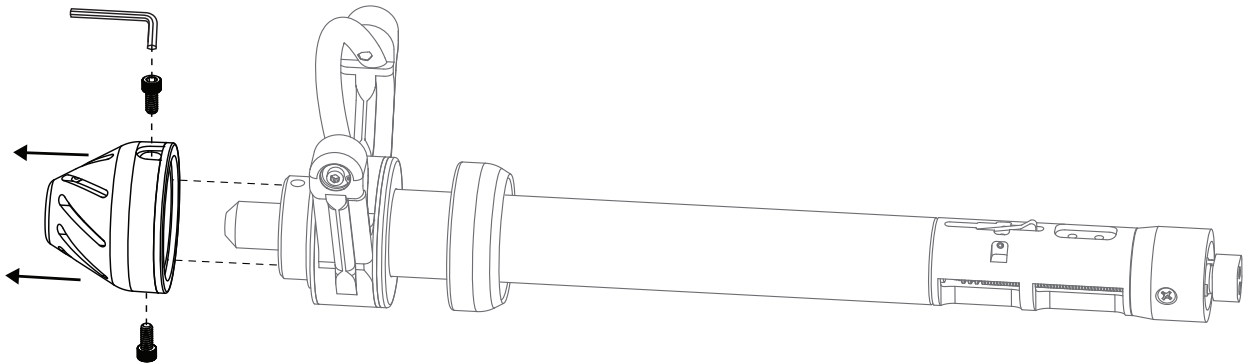
Note: additional force may be necessary as the threads are factory-sealed with thread sealant.



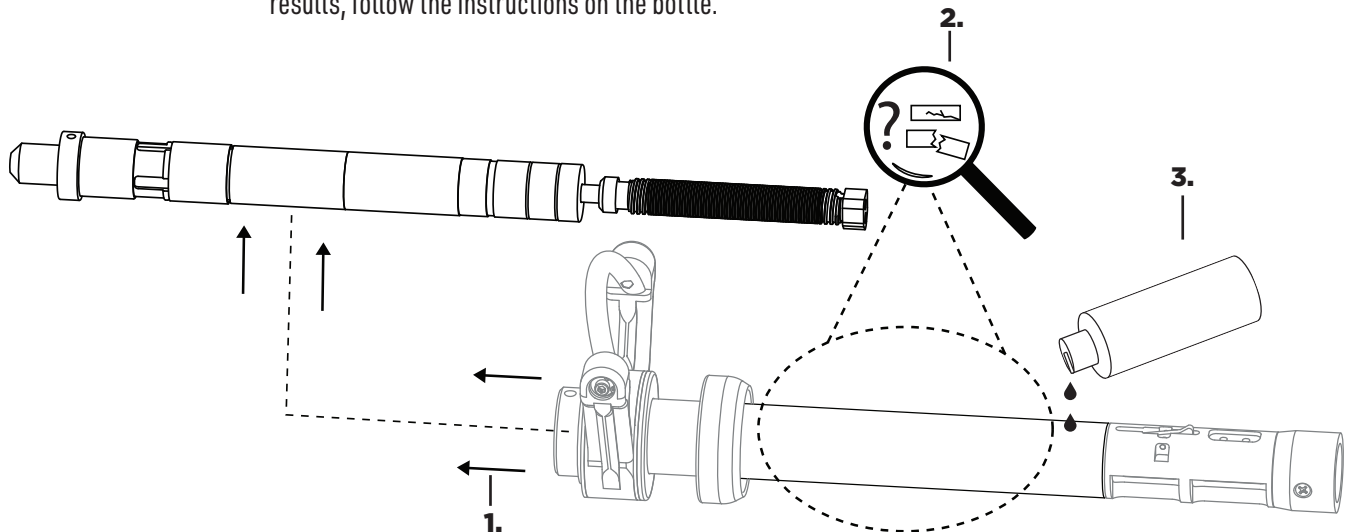
Step Six Pull the **Yellow Tube Assembly** from the **Black Tube Assembly**.



Step Seven Remove the **Muffler Assembly** using the 5/32" hex wrench.



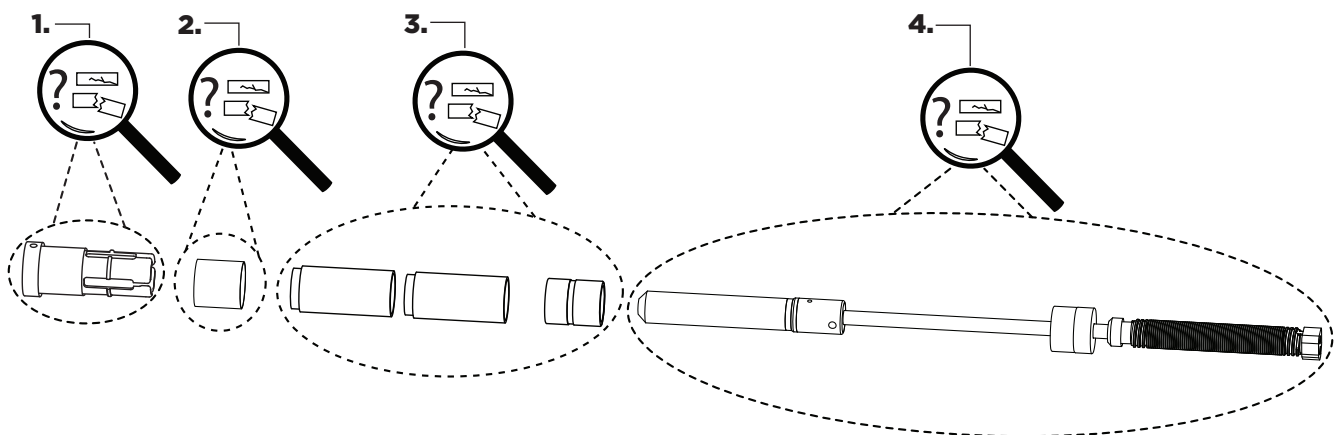
- Step Eight**
- 1) Pull the **Probe Shaft Assembly** from the **Yellow Tube Assembly**.
 - 2) Inspect the **Yellow Tube Assembly** to ensure the fiberglass is not damaged, chipped, or discolored.
 - a. Verify the load break trigger pivots smoothly and springs back with spring pressure.
 - b. Ensure the white plastic Gasket Tube is not damaged or chipped.
 - 3) Wax the fiberglass portion of the assembly using the **Load Break Tool Fiberglass Cleaner / Wax**. For best results, follow the instructions on the bottle.



Step Nine

- 1) Remove the **Female Contact** and inspect for excessive signs of pitting or damage. If surface soot deposits are present, use mild soap and water or a very fine nylon mesh sanding pad to remove the deposits.
 - a. Verify each finger on the **Female Contact** makes light contact with the brass & arc ring portion of the **Probe Shaft Assembly**. Resize the fingers on the **Female Contact** if necessary.
- 2) Remove the **Arc Shim** and inspect for excessive signs of pitting or damage. If surface soot deposits are present, use mild soap and water or a very fine nylon mesh sanding pad to remove the deposits.
- 3) Remove and inspect the **Pink Arc Snuffers** and **Plastic Spacer** to verify they are not cracked, chipped, or otherwise damaged.
 - a. FLEX-1 = Qty 2 **Pink Arc Snuffers** & Qty 1 single groove **Plastic Spacer**.
 - b. FLEX-2 = Qty 4 **Pink Arc Snuffers** & Qty 1 double groove **Plastic Spacer**.
- 4) Remove the **Probe Shaft Assembly** and inspect for excessive signs of pitting or damage. Replace if necessary.
 - a. **KEY INSPECTION: expand the spring to verify there are no signs of fraying or damage to the internal copper coils. This is a highly critical component in the load break tool, and a very important step in the inspection process. Repair personnel should take great care to follow these instructions carefully and to thoroughly inspect components.**
 - b. Inspect the white and black plastic discs to verify they are not cracked, chipped, or otherwise damaged.
 - c. Inspect the arc ring and probe base for signs of excessive pitting or arcing. If surface soot deposits are present a very fine nylon mesh sanding pad can be used to remove the deposits.
 - d. Verify the probe base, arc ring, and white molded probe are not loose or show signs of damage.

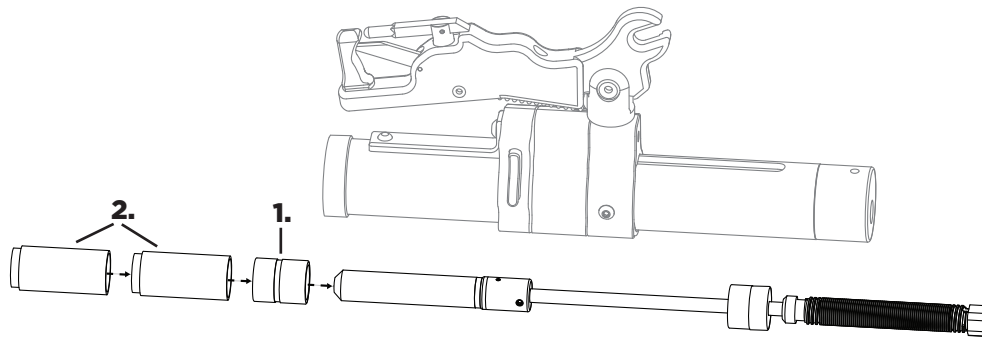
Note: Be sure to keep the **Probe Shaft** free from dirt and oils when inspecting. If there is any uncertainty on the extent of damage or repair needs, reach out to Utility Solutions, Inc. directly at 828-323-8914 or send pictures to sales@utilityolutionsinc.com.



REASSEMBLY INSTRUCTIONS

Step One

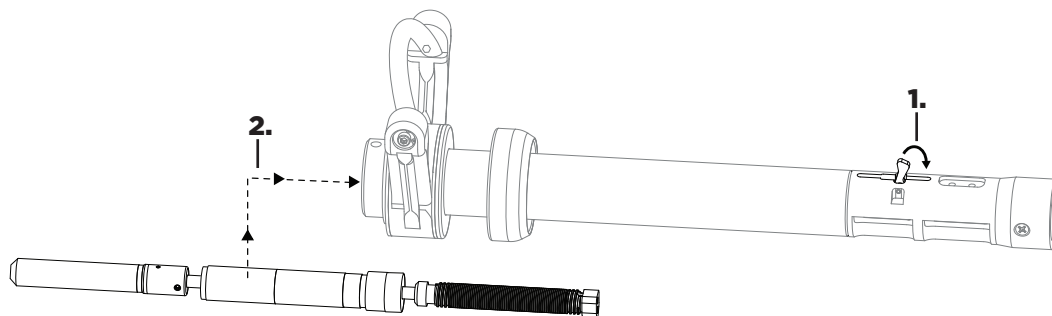
- 1) Reinstall the **Plastic Spacer** onto the **Probe Shaft Assembly**.
- 2) Reinstall the **Pink Arc Snuffers** onto the **Probe Shaft Assembly**.



Note: The FLEX-1 reassembly is shown above. The FLEX-2 assembly contains 2 additional **Pink Arc Snuffers**.

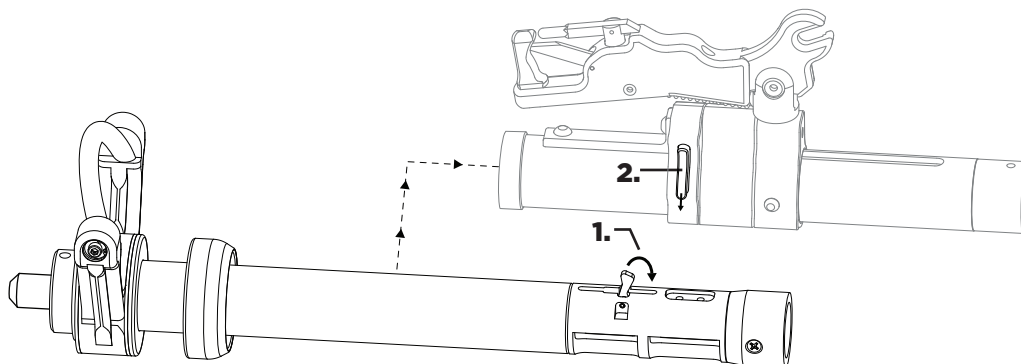
Step Two

- 1) Depress and hold the **Load Break Trigger** as shown below.
- 2) Fully insert the **Probe Shaft Assembly** into the **Yellow Tube Assembly**.



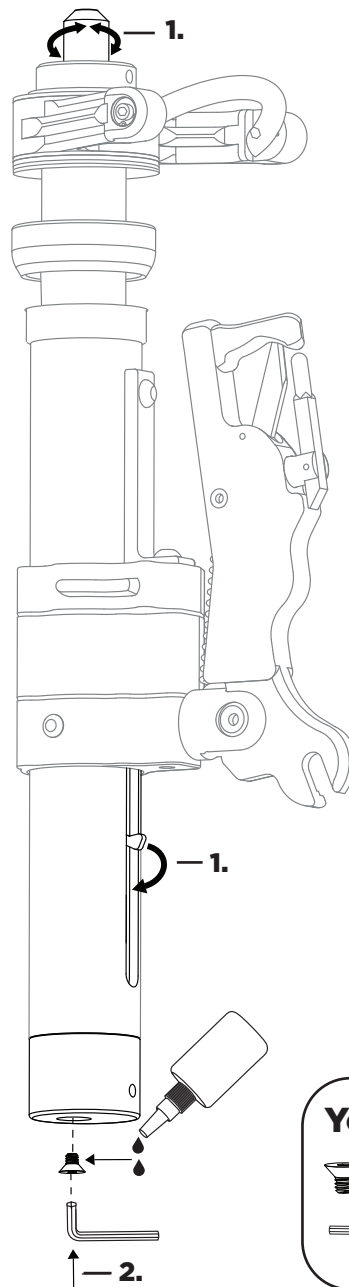
Step Three

- 1) Depress the **Load Break Trigger** again and insert the **Yellow Tube Assembly** into the **Black Tube Assembly**.
- 2) Depress the red **Reset Trigger** to properly seat the **Yellow Tube Assembly**.



Step Four

- 1) While holding the tool in a vertical position, seat the **Probe Shaft Assembly** by depressing the **Load Break Trigger** and rotating the protruding end of the **Probe Shaft Assembly** until it fully seats in the tube. When fully seated, the protruding end of the **Probe Shaft Assembly** will be nearly flush with the lip of the **Yellow Tube Assembly**.
- 2) Hold the **Probe Shaft Assembly** in place and secure it by reinstalling the fastener with the 5/32" hex wrench. Apply 1-2 drops of **Loctite® Threadlocker Red 263** to the fastener threads prior to tightening.

**You Will Need:**

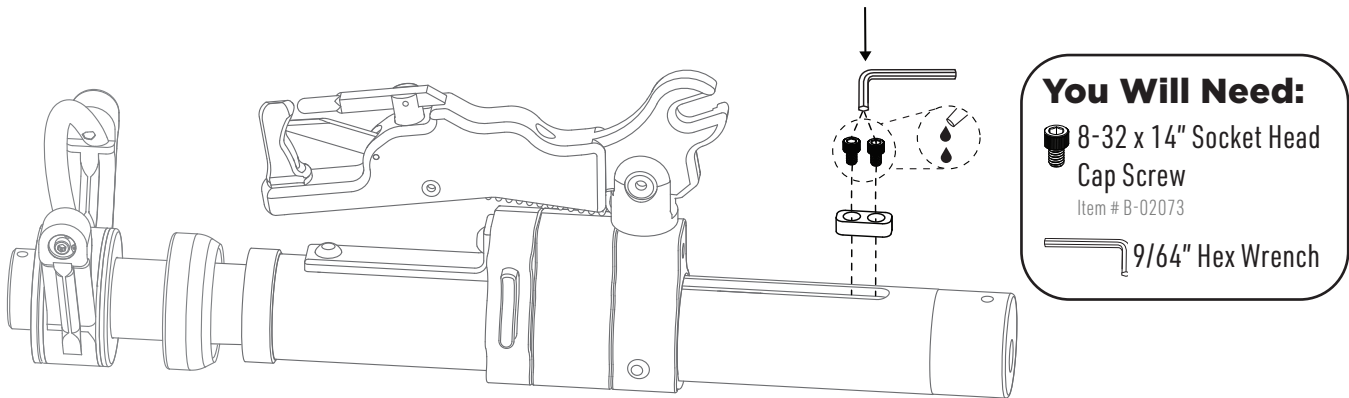
1/4" - 20 x 3/8" Flat Head Screw
Item # B-02072



5/32" Hex Wrench

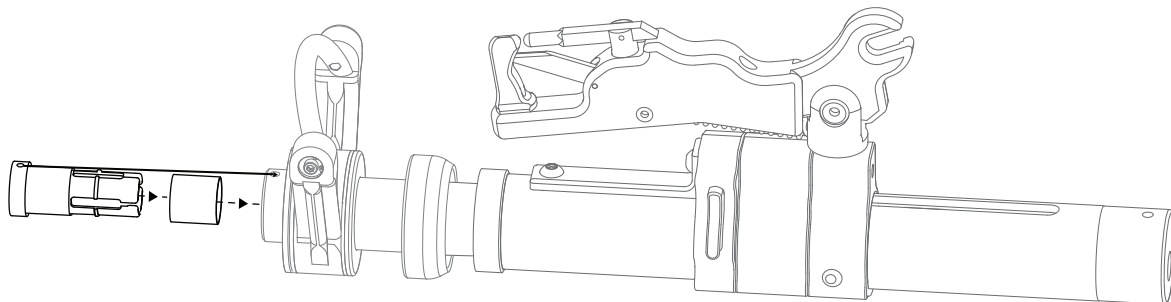
Step Five

Using the 9/64" hex wrench, reinstall the **Guide Pin**. Apply 1-2 drops of **Loctite® Threadlocker Red 263** to each fastener prior to tightening.



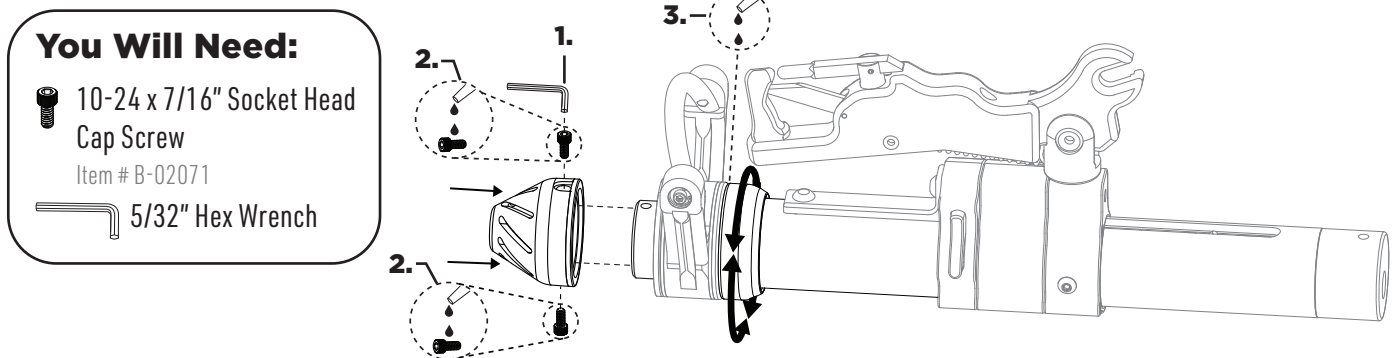
Step Six

Reinstall the **Female Contact** and **Arc Shim**, making sure the screw holes are aligned.



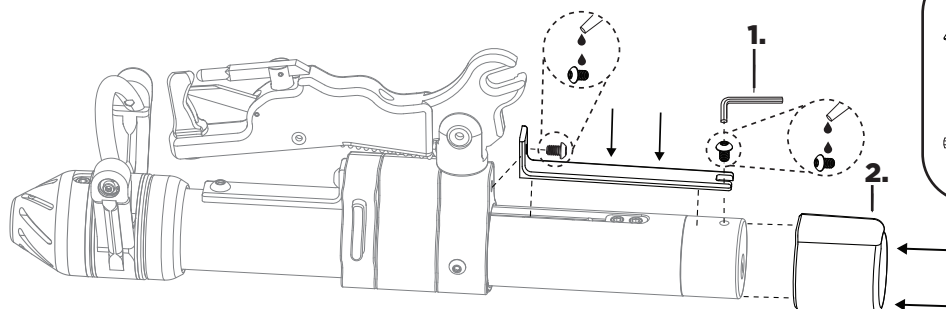
Step Seven



- 1) Using the 5/32" hex wrench, reattach the **Muffler Assembly**.
- 2) Apply 1-2 drops of **Loctite® Threadlocker Red 263** to each fastener prior to tightening.
- 3) Apply 1-2 drops of **Loctite® Threadlocker Red 263** to the aluminum threads on the **Black Tube Assembly** and tighten the **Black External Gasket**.



Step Eight

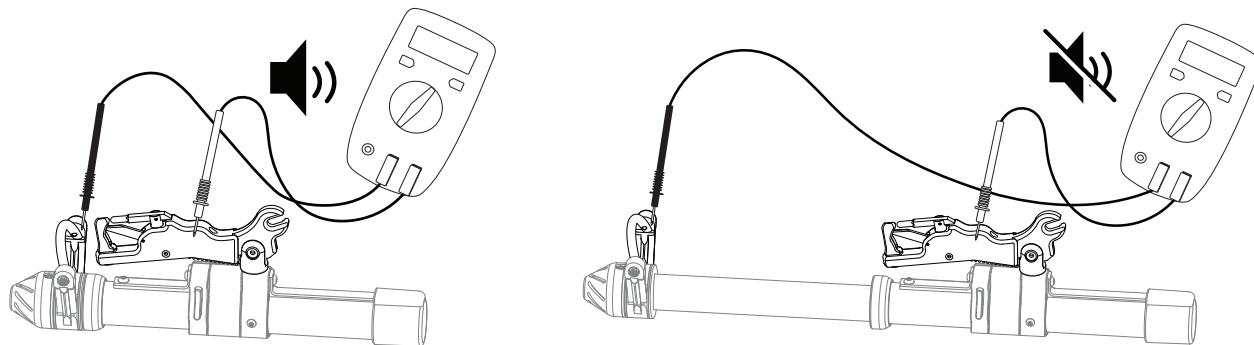
- 1) Using the 5/32" hex wrench, secure the **Lower Conductor Path** in place. Hold the part tight to the tool while reinstalling to minimize the gap. Apply 1-2 drops of **Loctite® Threadlocker Red 263** to each fastener prior to tightening.
- 2) Reinstall the **Rubber End Cap**.

**You Will Need:**

-  1/4" - 20 x 5/16" Button Head Screws
Item # B-02090
-  5/32" Hex Wrench

Step Nine

After reassembly, test for proper continuity and load break. Set a multimeter to Continuity Mode. Touch one lead to the hook loop and the other end to the **Arm Assembly** as shown below. When the tool is fully extended, there will be no continuity.

**Tool Inspection**

After reassembly, refer to the Field Inspection procedure at the beginning of this document. Before each use and after reassembly, this procedure should be followed to ensure proper functionality. For further questions or assistance on using this manual, call customer service at 828-323-8914.

The sticker should be replaced after inspection. To order new Inspection Reminder stickers, call Utility Solutions, Inc. at 828-323-8914 or email sales@utilityolutionsinc.com and reference part number B-02373.