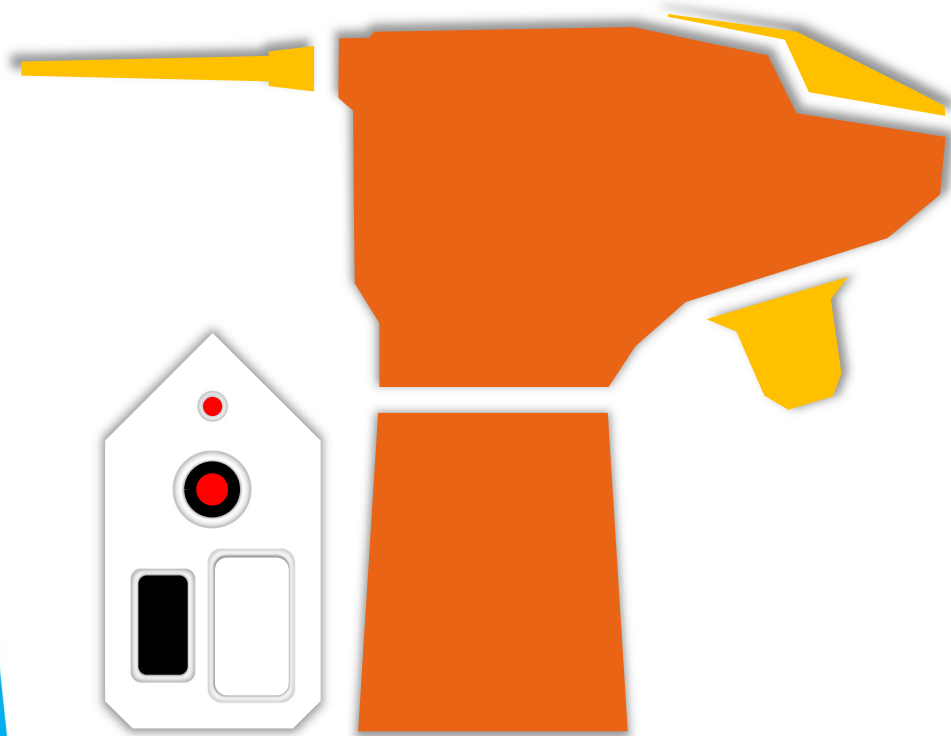


# Stinger<sup>®</sup>

Version 1

Owner / Operator's Manual Rev B.2



**PATENT  
PENDING**

**FIRSTPOWER**  
GROUP LLC

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# Stinger® Kit Overview

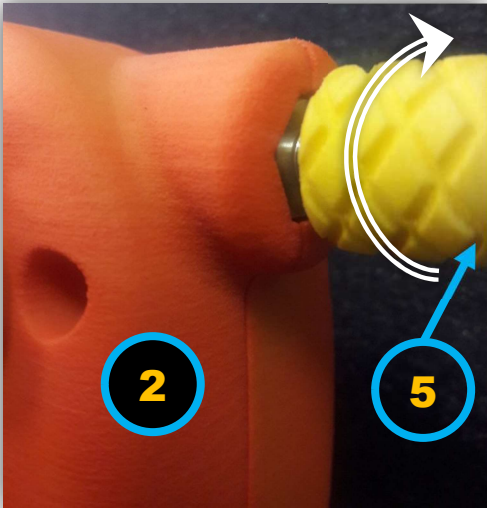


1. **Case:** The Stinger® Kit comes in a durable and waterproof case.
2. **Main Assembly:** Non-conductive housing that safely protects the can from an electric arc and houses the plumbing and valve to route the Stinger® fluid to the nozzle.
3. **Receiver:** Allows for remote communication between the main assembly, Key Fob and the transmitter to turn the dispense on and off.
4. **Transmitter:** Allows for Stinger® fluid to be sprayed through a press of a button from a safe location.in the Transmitter and Receiver.
5. **Nozzles:** The kit comes with a spray nozzle and 2 spare spray nozzles. These nozzles are used to disperse the Stinger Fluids in a direct stream.
6. **GoPro® Camera:** Captures live video of where the Stinger fluid is being sprayed.
7. **Smartphone:** Used to display video from the GoPro® Camera.
8. **Batteries:** Six 9V batteries are provided in addition to the batteries installed in the Receiver and Transmitter.

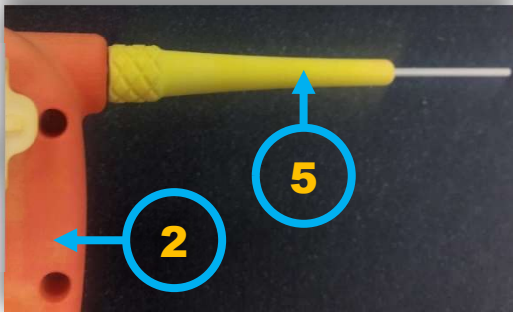
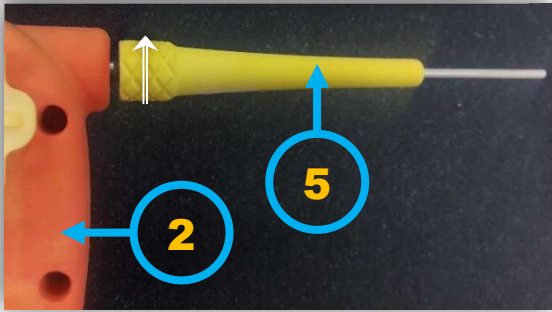
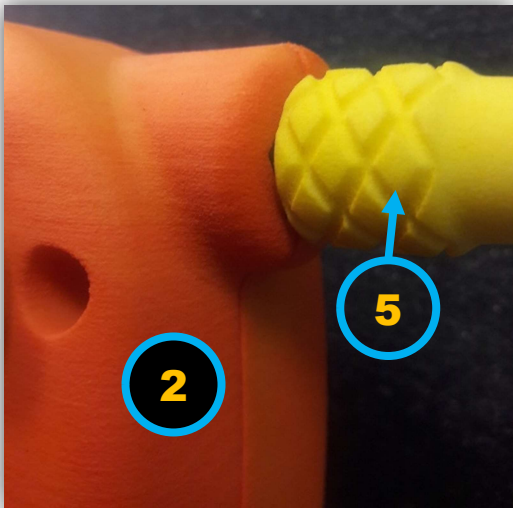
# Operation Guide

**Step 1:** Take the Main Assembly (2) out the Case (1). Typically, the Receiver (3) is left in the Main Assembly (2). If the Receiver (3) is not installed, installed it using the procedure shown on page 16. Begin with screwing a Nozzle (5) into the threaded insert on the Main Assembly (2). Twist with your hand until the Nozzle (5) stops turning which is shown in the after images.

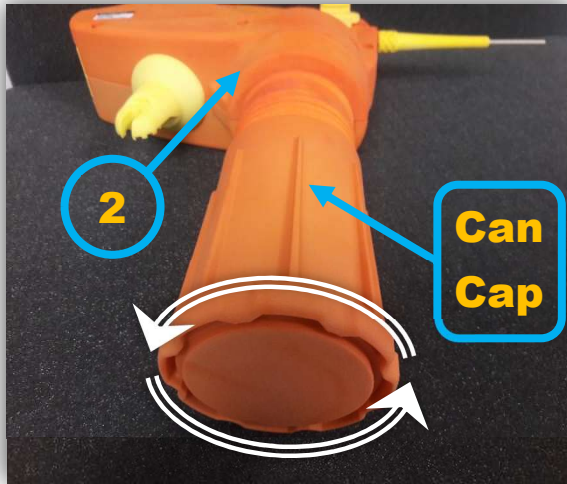
**Before**



**After**

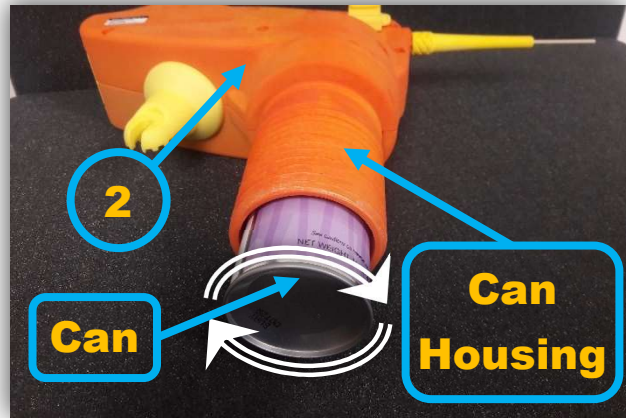


# Operation Guide

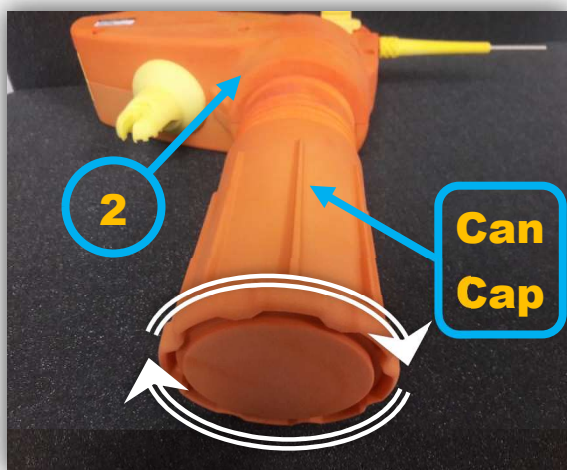


**Step 2:** Unscrew the Can Cap on the bottom of the Main Assembly (2) in the direction indicated.

**Step 3:** Fully screw in the threaded top of the appropriate Stinger® Fluid Can (1FR™, 2C™, 3PAO™) with your hand until hand tight. It is normal to hear a pressure release sound before the can is fully screwed in. Typically, you should give the can another ½ turn after hearing the pressure release.



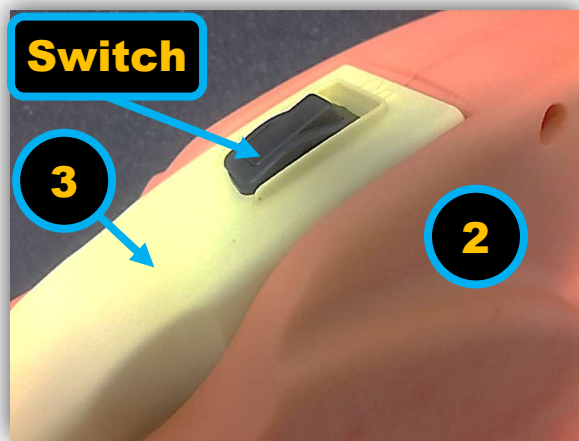
**Warnings:** If it is hard to screw in the can, remove the can and try again. **DO NOT FORCIBLY SCREW IN THE CAN.** If the can isn't fully screwed in, the Can could leak or fail inside the Can Housing. The Stinger® can only be used with proprietary Stinger® fluids, **DO NOT** attempt to insert other cans into the Stinger®.



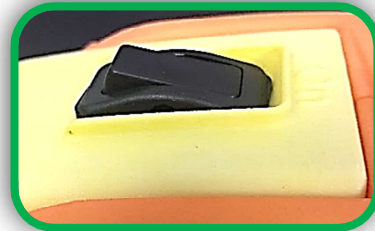
**Step 4:** After installing a can, be sure to fully screw the orange Can Cap to the Main Assembly (2) until hand tight.

# Operation Guide

**Step 5:** Power on the Receiver (3) in the Main Assembly (2) by flipping the Switch from the Off Position to On Position.



Switch in the OFF Position



Switch in the ON Position



**Step 6:** Test fluid stream into a rag away from equipment for proper function.

**Step 7:** Next, power on the Transmitter (4) by flipping the switch from the OFF position to the ON position. After switching the Transmitter ON, the LED will go ON for about 1 second, off for about 1 second, and then ON again for about 1 second to indicate it has powered up OK. Wait until the LED has gone through the flashing process to press the red button. If the LED doesn't go ON when the switch is flipped to the ON position, the transmitter may not be functioning.

**Warning:** Any transmitter will control all powered receivers within range. Make sure that all other Stingers that are not in use have their receivers and transmitters turned off.

# Operation Guide

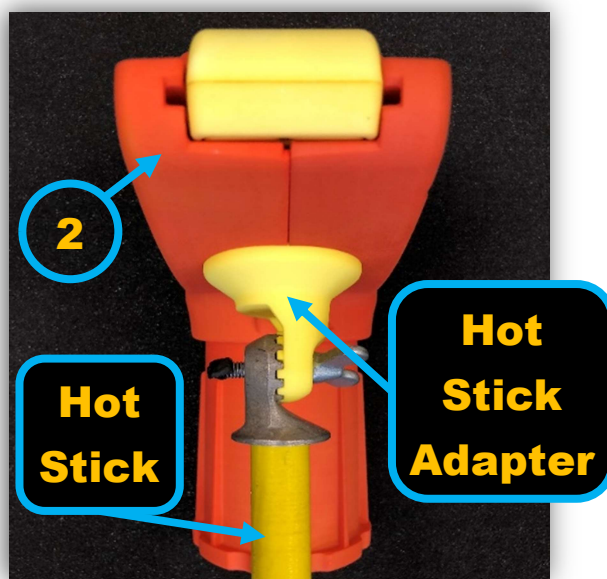


Switch in the OFF Position



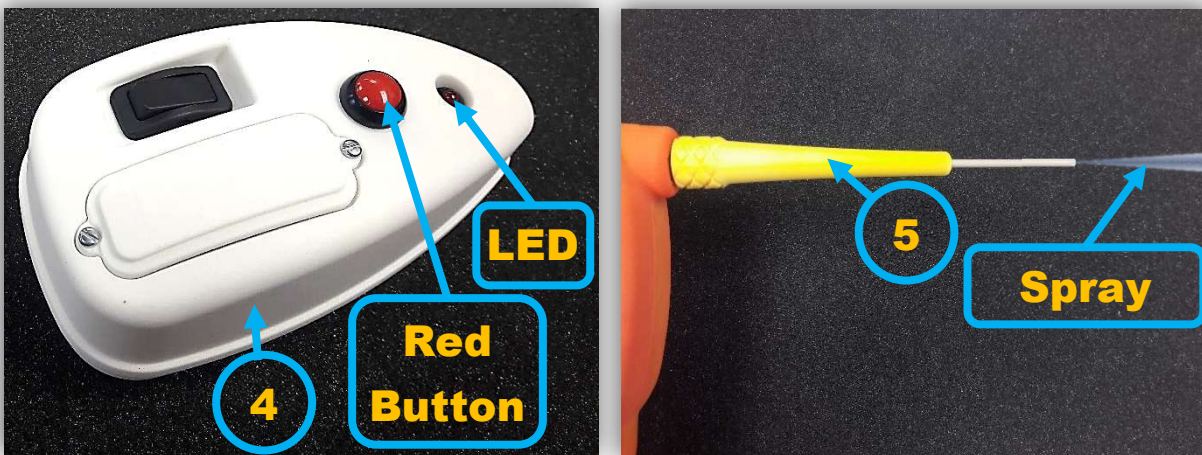
Switch in the ON Position

**Step 8:** Attach the fully assembled Stinger® to the hot stick using the yellow universal toothed hot stick adapter (Hot Stick Adapter). Be sure to attach the Main Assembly (2) at an appropriate angle to easily aim stream of Stinger fluid to the desired location. We recommend you practice moving and operating the stinger when the hot stick is fully extended before using it in the field.



**Step 9:** Press the Button on the Transmitter (4) to dispense the liquid. The liquid will continuously stream out of the Nozzle (5) while the Red button is pressed. If the LED does not go ON when the button is pressed, the Receiver may be not functioning.

# Operation Guide

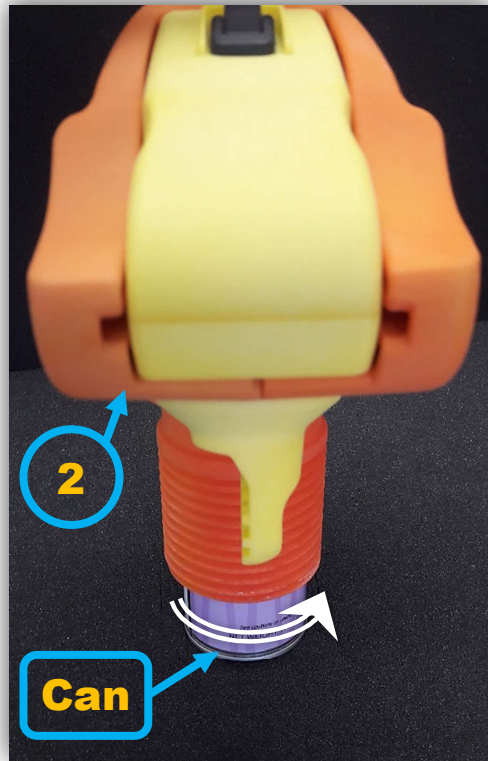


**Step 10:** Turn the switches on the Receiver (3) and Transmitter (4) to the OFF position after use (see Steps 5 and 6 to see what each switch position looks like). Remove the Nozzle (5) from the Main Assembly (2). Place the Transmitter (4), and Nozzle (5) back in the Case (1).

**Step 11:** Remove the can cap then, unscrew the can. Make sure the Main Assembly (2) is upright to prevent the Stinger® fluids from leaking onto your clothes when the can is unscrewed. Then reinstall the can cap.



# Operation Guide



**Step 12:** Place the Main Assembly (2) with the Receiver (3) into the Case (1) and close the Case (1). Make sure this manual is in the Case (1) if the Stinger is not in use.



# GoPro® Camera Installation and Usage

**Step 1:** Lift the grey Rubber Locking Plug that is a part of the GoPro® Camera (6) so that it is touching the back of the camera.

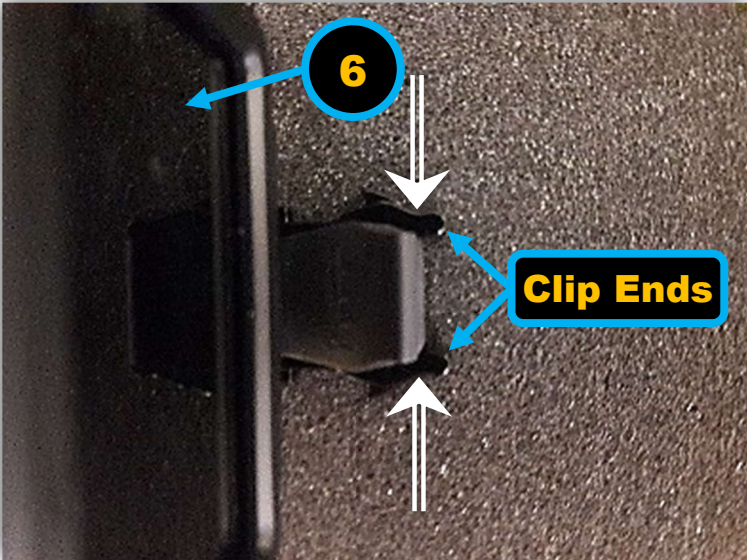
**Before**



**After**



**Step 2:** To easily slide the GoPro® Camera (6) into the Camera Mount on the Main Assembly (2) shown on the next page, gently pinch the black plastic Clip Ends.



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# GoPro® Camera Installation and Usage



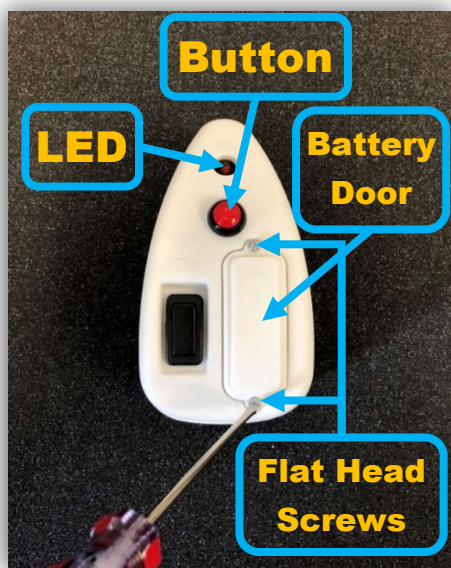
This product and/or service is not affiliated with, endorsed by or in any way associated with GoPro Inc. or its products and services. GoPro, HERO, Session, Karma and their respective logos are trademarks or registered trademarks of GoPro, Inc. . (See- <https://gopro.com/en/us/shop/cameras/hero7-silver/CHDHC-601-master.html>) for pairing.

**Step 5:** After use, gently remove the camera from the Main Assembly (3) and turn it off. Steps 1-4 for reference. Place the Smartphone (6) and the camera back into the Case (1)

# Battery Replacement

## Replace Transmitter Battery

The status of the batteries is indicated by the transmitter LED when the button is not pressed. If the LED flashes red 1 time every 3 seconds, then transmitter has low battery voltage. If the LED flashes red 2 times every 3 seconds, then the receiver has low battery voltage. If the LED flashes red 3 times every 3 seconds, both have low battery.



**Step 1: Make sure that the Transmitter is turned off.** Then use a #4 flat head screwdriver to unscrew each screw on the battery door. **Be sure to not completely unscrew the screws from the battery door or else the washers will detach.**



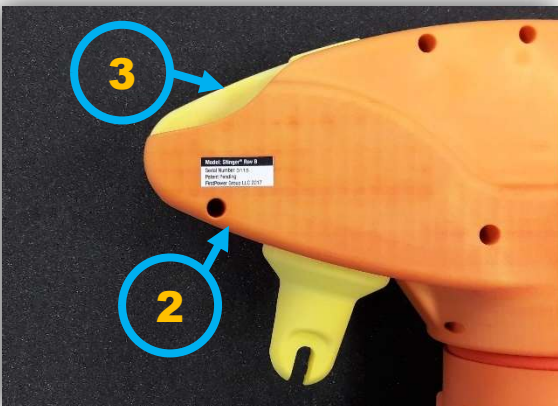
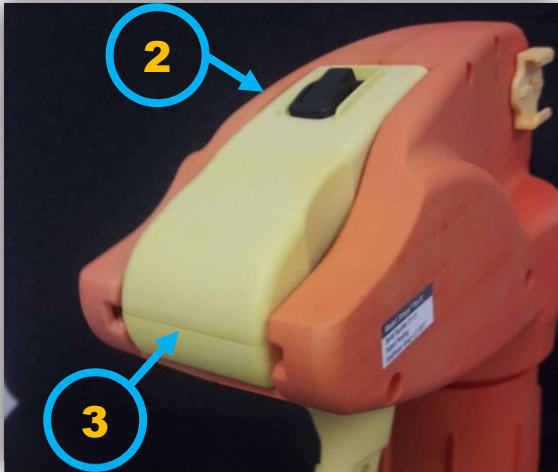
**Step 2: Use standard Alkaline 9V batteries for replacement.** Remove old battery and carefully replace with 1 new 9V battery. Put the battery door securely back on and verify the transmitter works by flipping the on switch, the red light should blink twice.

# Battery Replacement

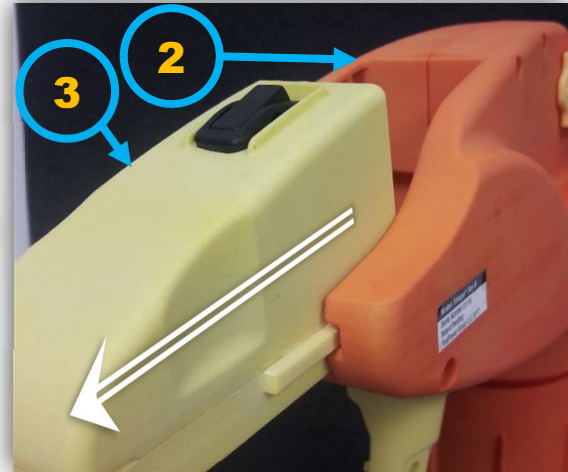
## Replace Receiver Batteries

**Step 1:** Remove the Receiver (3) from its initial position shown in the “Before” figures. Gently slide it out the back of the Main Assembly (2) which is presented in the “After” figures.

**Before**



**After**

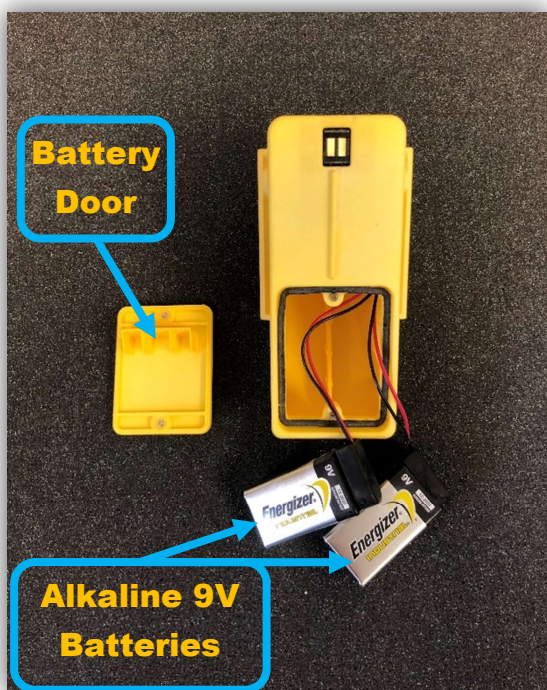


# Battery Replacement

## Replace Receiver Batteries



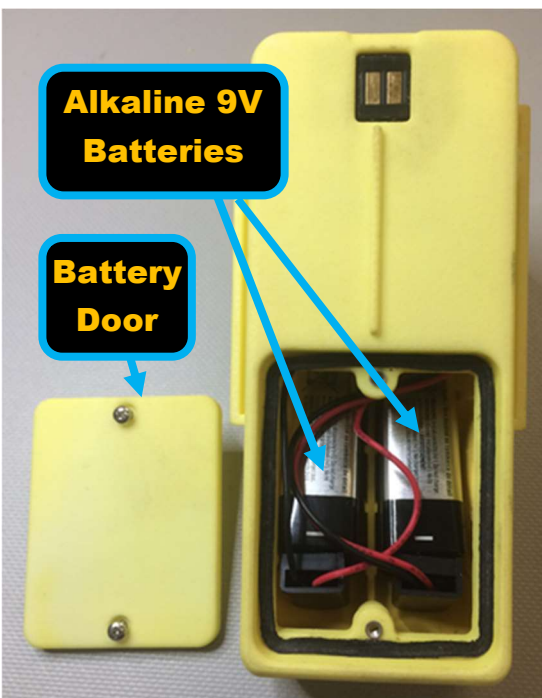
**Step 2:** Make sure that the Receiver is turned off. Then use a #2 Philips screwdriver to unscrew each screw on the battery door. Be sure to not completely unscrew the 2 screws from the battery door or else the washers will detach.



**Step 3:** Use standard Alkaline 9V batteries for replacement. Remove the old batteries and carefully replace with 2 new 9V batteries

# Battery Replacement

## Replace Receiver Batteries

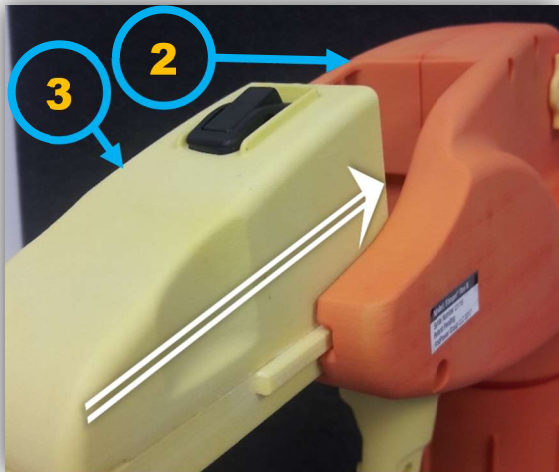


**Step 4:** Make sure the battery wires are routed as shown on this photo. This will prevent wire damage and allow proper battery door installation. Battery door must be installed flush. Screws must be recessed after installing. **DO NOT FORCE** screws in, if they don't easily screw in so they are recessed, unscrew and re-install.

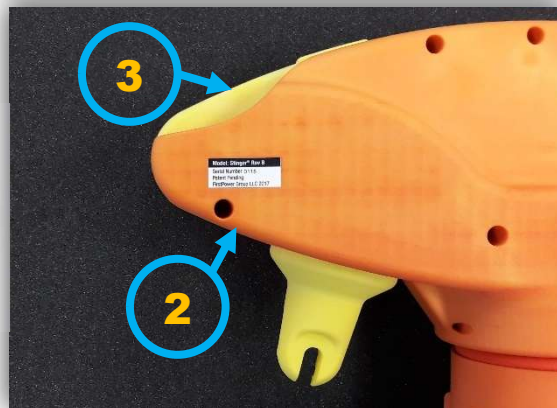
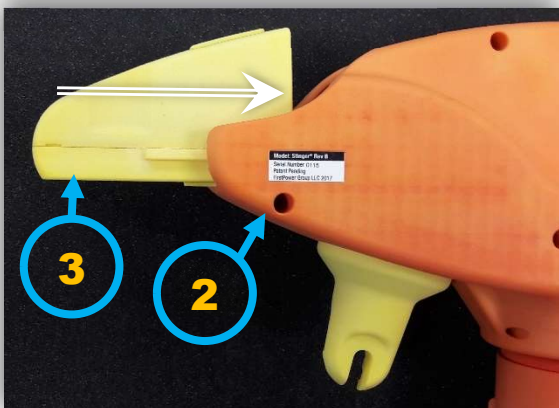
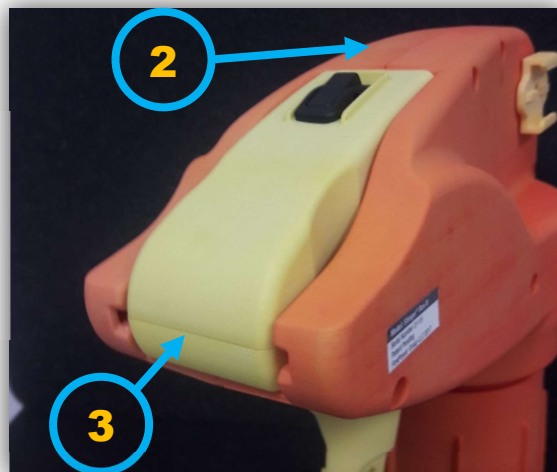
# Battery Replacement

**Step 4:** Finally, insert the Receiver (3) back into the back of the Main Assembly (2) as shown in the “Before” figures. Confirm that Receiver (3) is fully inserted into the Main Assembly (2) as shown in the “After” figures.

**Before**



**After**





# Stinger® Fluid Overview



## 1FR - Penetrant

Stinger® Fluid 1FR is a fast-acting penetrant that frees corroded disconnect switches, bushings, and bolts. 1FR has a proprietary threaded top which only allows it to be used in the Stinger®. Simply apply to a seized joint and let sit for 20-30 minutes to ensure penetration and repeat if needed. This fluid can be used on energized equipment.



## 2C - Cleaner

Stinger® Fluid 2C is a switch and contact cleaner. 2C has a proprietary threaded top that allows it to only be used in the Stinger®. This fluid can be used on energized equipment. **DO NOT use on polycarbonate plastics, this cleaner can harm plastics.**



## 3PAO - Lubricant

3PAO is a high-quality synthetic lubricant, containing anti-wear additives. It is great for lubricating seized parts, such as gears and knuckles. After using 1FR to open the switch, 3PAO may be used to make the switch move freely and ensure it closes properly. This fluid can be used on energized equipment.

# ***Recommended Maintenance and Safety***

## ***Recommended Maintenance***

- Extend the life of the Stinger® by not storing outdoors or in extreme conditions
- Wipe the Stinger® using a clean lint-free cloth after each use.
  - **DO NOT USE CHEMICAL SOLVENTS AS THIS WILL VOID WARRANTY. THIS WILL COMPROMISE THE DIELECTRIC PROPERTIES OF THE STINGER®.**
  - **DO NOT SUBMERGE THE STINGER® THIS WILL VOID WARRANTY**
- Power off Receiver and Transmitter when not in use.
- Remove can from inside Stinger® when not in use.
- Remove batteries when stored long term.

## ***Safety***

### **Stinger®**

- Do not operate with line clearance without the can cap installed
- Make sure to practice operating the Transmitter while holding the hot stick. Also, practice getting used to the weight of the Stinger®.
- Always make sure that the Receiver is fully inserted into the Main Assembly to avoid it falling out with rough usage.

### **Stinger® Fluids**

- If any fluids contact skin, please wash the area of contact immediately and with soap and water.
- Do not ingest any of the fluids, if ingested please contact emergency services.
- Do not store fluids near extreme heat or cold because cans are under pressure.

# *Specifications and Certifications*

## **The Stinger®:**

- Dimensions: 10" X 4.25" X 14.6"
- Weight: 4 lbs
- Material: dielectric resin
  - ASTM D149 tested to 221 kV/in
- The Stinger® passes a Proximity High Voltage Withstand test to 230kV

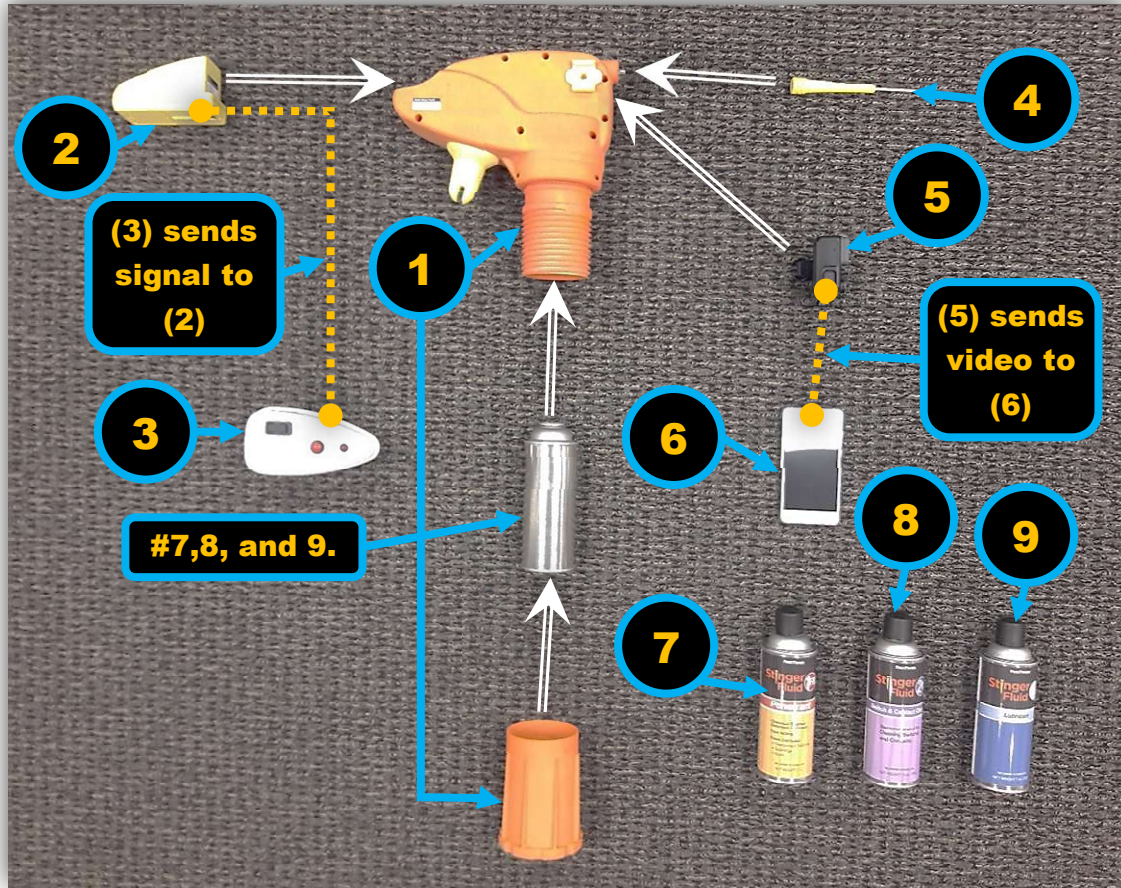
## **Stinger® Fluids:**

- All Stinger® Fluids have passed ASTM 3065D for non-flammability when applied using the Stinger®

# ***Warranty Information***

The Stinger® is warranted for one year from the date of purchase with a factory warranty. This warranty applies to parts and labor for any defects that are corrected in our shop when the product has been returned for repair. Pass through warranties provided where applicable.

# Parts Diagram



<b>Number:</b>	<b>Part Number:</b>	<b>Description:</b>	<b>Quantity:</b>
1	STGR-1000	Main Assembly	1
2	STGR-2000	Receiver	1
3	STGR-5000	Transmitter	1
4	STGR-1344	Nozzle	1
5*	STGR-7000	GoPro® Camera*	1
6	STGR-6000	Optional - Smartphone	0
7	STGR-Aerosol 1FR	1FR, Not included in Stinger® Kit	0
8	STGR-Aerosol 2C	2C, Not included in Stinger® Kit	0
9	STGR-Aerosol 3PAO	3PAO, Not included in Stinger® Kit	0

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# *Questions?*

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