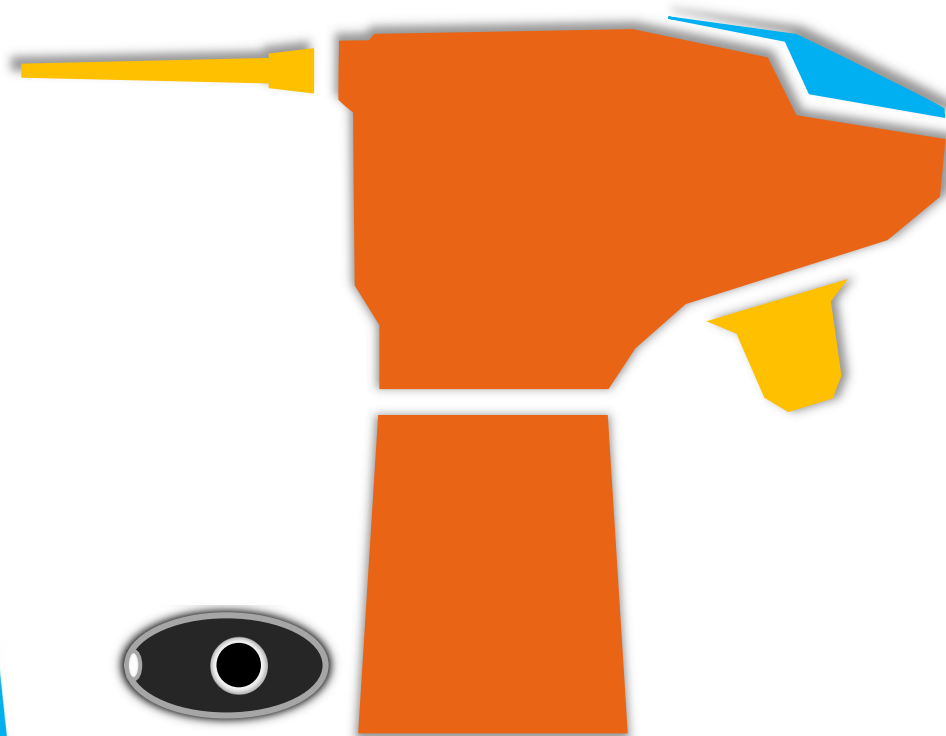


Stinger[®]

Version 2

Owner / Operator's Manual Rev A.5



Patent No. 10,746,353

FIRSTPOWER
GROUP LLC

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Stinger® Kit Overview

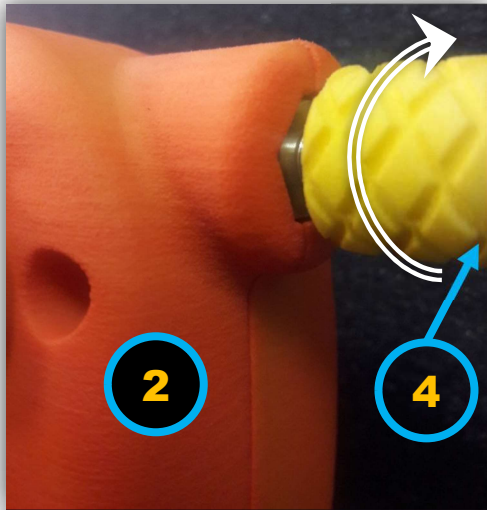


1. **Case:** The Stinger® Kit comes in a durable and waterproof case.
2. **Main Assembly:** Non-conductive housing that safely protects the can and houses the plumbing and valve to route the Stinger® fluid to the nozzle.
- 3a. **Receiver:** Allows for remote communication between the main assembly, and the transmitter to turn the dispense on and off.
- 3b. **Key Fob Transmitters:** The Receiver comes with two Key Fob Transmitters and it exclusively works with those included Key Fob Transmitters. Each Key Fob Transmitter allows for Stinger® fluid to be dispensed from a safe location.
4. **Nozzles:** The kit comes with a dispense nozzle and 2 spare nozzles. These nozzles are used to dispense the Stinger Fluids in a direct stream.
5. **GoPro® Camera:** Captures live video of where the Stinger fluid is being dispensed.
6. **Lanyards:** Used to connect to Key Fob transmitters.
7. **Batteries:** Six 9V batteries are provided in addition to the batteries installed in the Receiver.
8. **Stinger® Manual:** This document

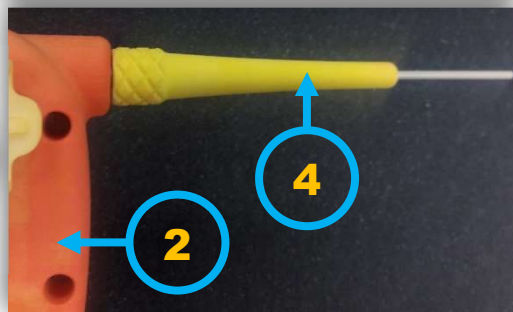
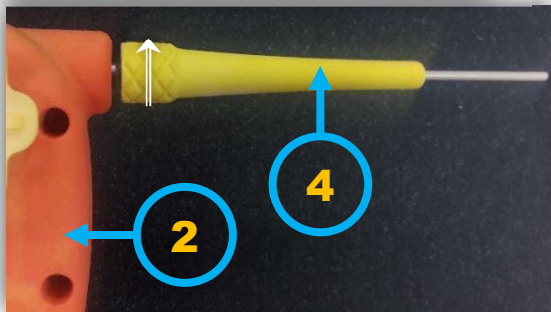
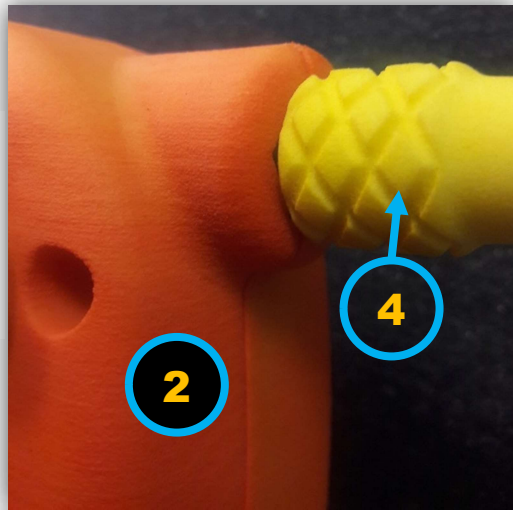
Operation Guide

Step 1: Take the Main Assembly (2) out of 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 20. Begin with screwing a Nozzle (4) into the threaded insert on the Main Assembly (2). Twist with your hand until the Nozzle (4) stops turning which is shown in the after images.

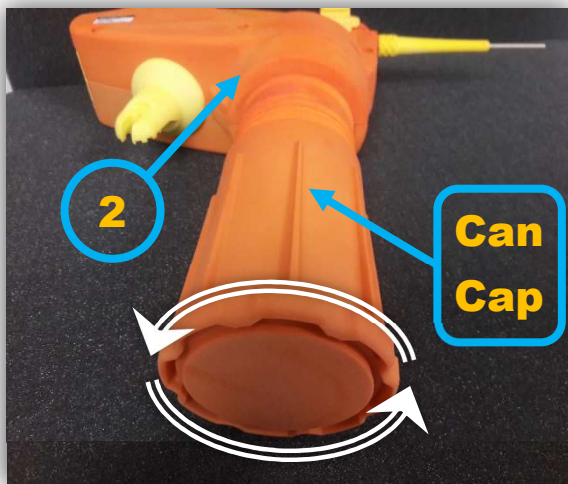
Before



After



Operation Guide



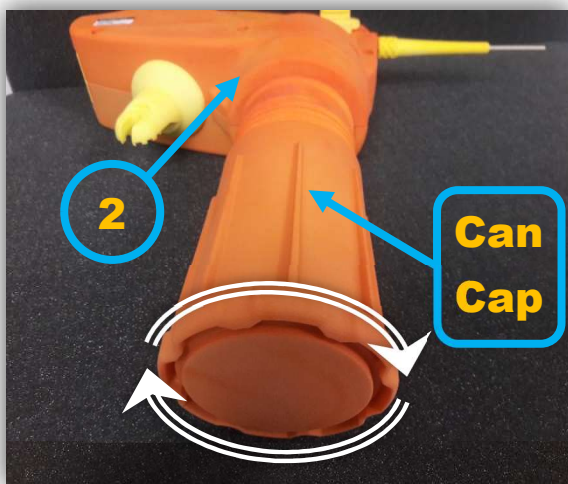
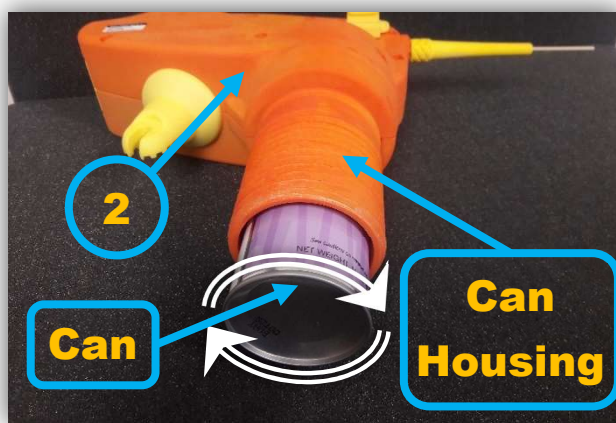
Step 2: Unscrew the Can Cap on the bottom of the Main Assembly (2) in the direction indicated.

Step 3: Fully screw in the threaded top of the appropriate Stinger® Fluid Can (1FR™, 2NP™, 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 (3a) 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

Make sure the power switch is in the On position



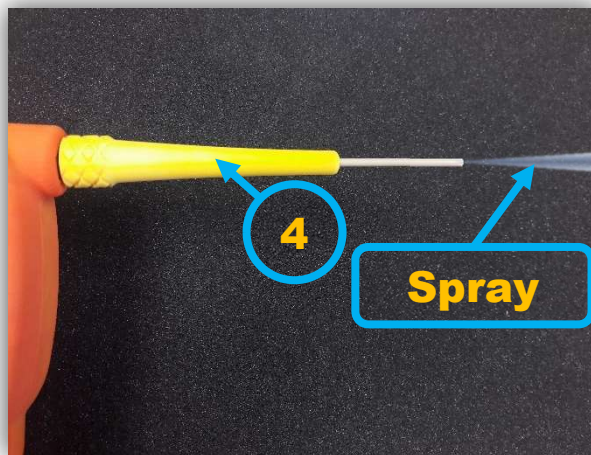
Step 6: Test fluid stream into a rag away from equipment for proper function.

Step 7: Attach the fully assembled Stinger® to the hot stick using the yellow universal toothed 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.

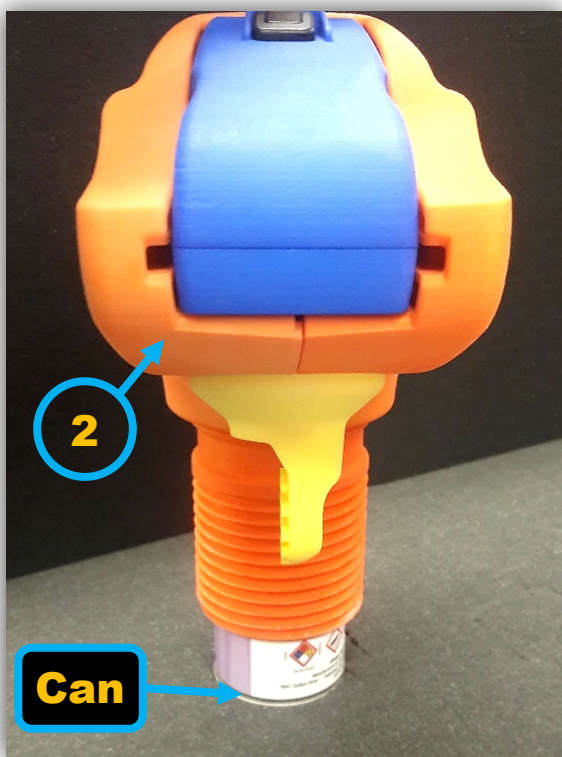


Operation Guide

Step 8: Press the Button on the Transmitter (3b) to dispense the liquid. The liquid will continuously stream out of the Nozzle (4) while the key fob transmitter is pressed. If the LED does not go ON when the button is pressed, the batteries in the button must be replaced. **Note: The Transmitter (3b) exclusively connects to the Receiver (3a) it came with in the Case (1).**



Step 9: Turn the switch on the Receiver (3a) to the OFF position after use (see Steps 6 to see what each switch position looks like). Remove the Nozzle (4) from the Main Assembly (2). Place the Transmitter (3b) and Nozzle (4) back in the Case (1).



Step 10: 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 11: Place the Main Assembly (2) with the Receiver (3a) 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

Note: FirstPower Group LLC does not supply the microSD cards with the camera

Step 1: Lift the grey Rubber Locking Plug that is a part of the GoPro® Camera so that it is touching the back of the camera as shown below.

Before



After



Step 2: To easily slide the GoPro® Camera into (or out of) the Camera Mount (shown on the next page), gently pinch the black plastic Clip Ends.



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GoPro® Camera Installation and Usage

Step 3: Slide the GoPro® Camera (5) into the camera mount on the right side of the Stinger® Main Assembly (2). Make sure that the camera lens is in the same direction as the nozzle (4).

Before



After



Step 4: Turn on the GoPro® Camera (5) by pressing the Power Button shown left. The camera's Wi-Fi is turned on automatically.

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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 Black Transmitter Batteries

The status of the batteries is indicated by the Transmitter's LED. If the Transmitter's LED doesn't turn on when the button is pressed, then the batteries must be replaced.

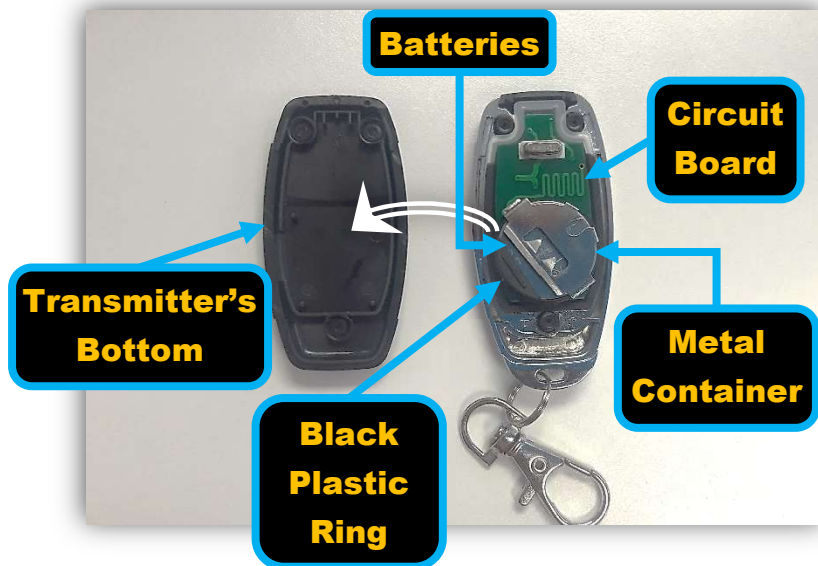
Top



Bottom



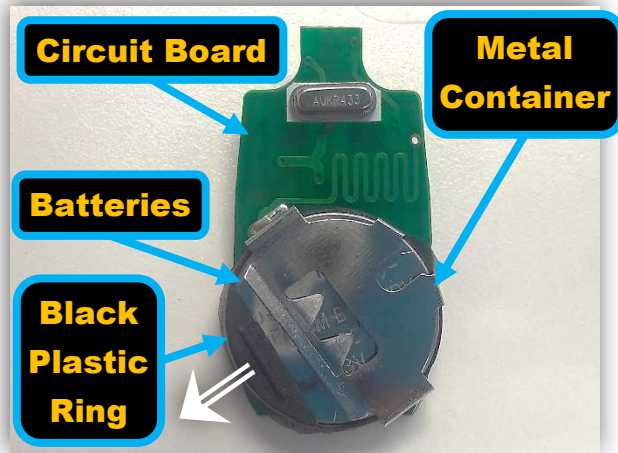
Step 1: Flip the Transmitter over so that it is on its bottom side. Then use a #2 Philips head screwdriver to unscrew three screws on the Transmitter's bottom. **Make sure not lose the screws.**



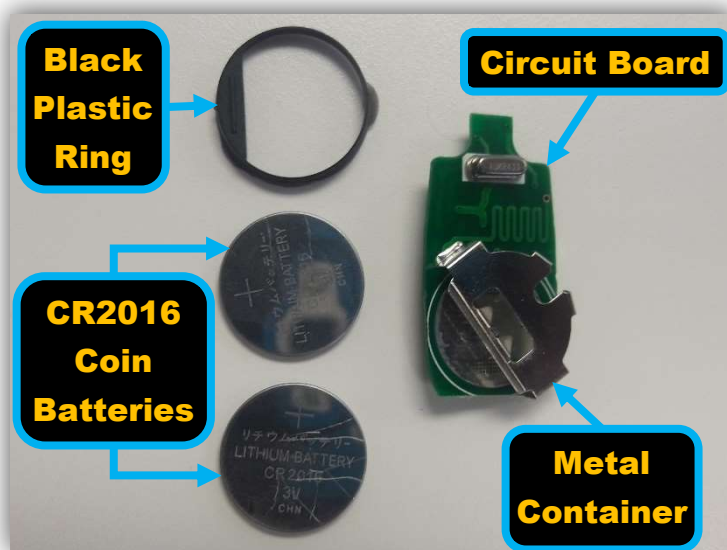
Step 2: Lift the Transmitter's bottom, flip over, and set aside. You will see the batteries are on the green circuit board held by a metal container and secured with a black plastic ring as shown on the left.

Trouble Shooting Guide

Replace Black Transmitter Batteries



Step 3: Remove the green circuit board from the Transmitter. Gently pull on the black plastic ring, that holds the batteries, from the metal container. **Both batteries are directly stacked on top of each other and will fall out once the black plastic ring is completely out of the metal container.**



Step 4: Use standard CR2016 coin batteries for replacement. Replace the old batteries with 2 new CR2016 coin batteries in the orientation shown left into the black plastic ring. Push the black plastic ring containing the new batteries back into the metal until it can't move further.

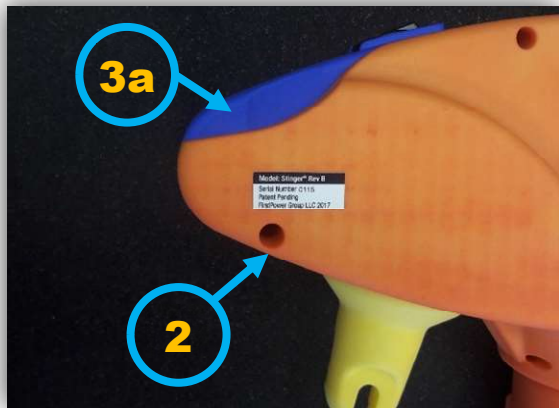
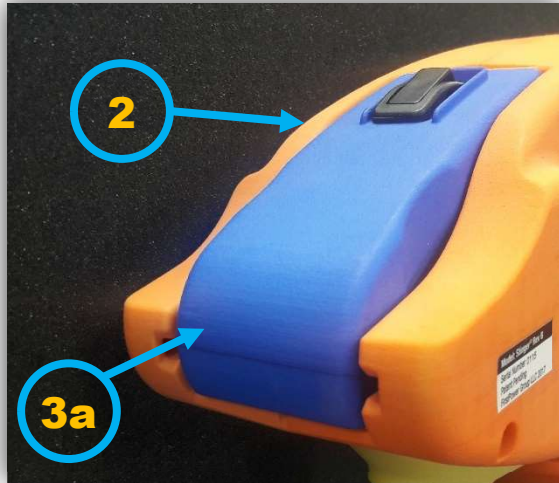
Step 5: Carefully set the green circuit board with batteries back into the Transmitter's bottom, and carefully replace the Transmitter's top. Hold it together and secure with the 3 screws.

Trouble Shooting Guide

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

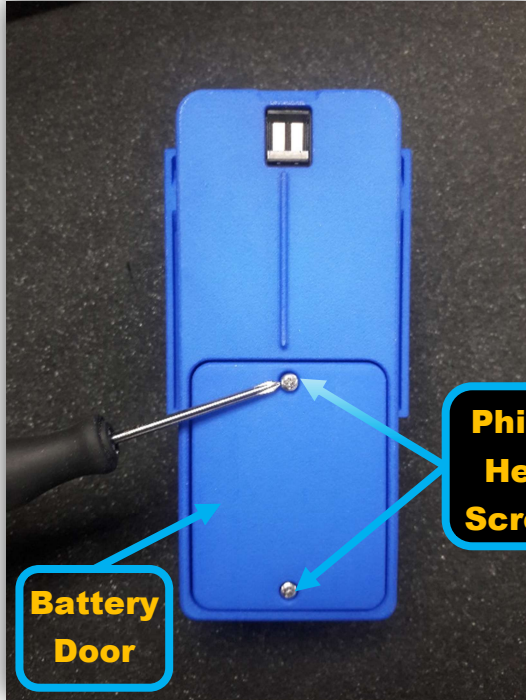


After

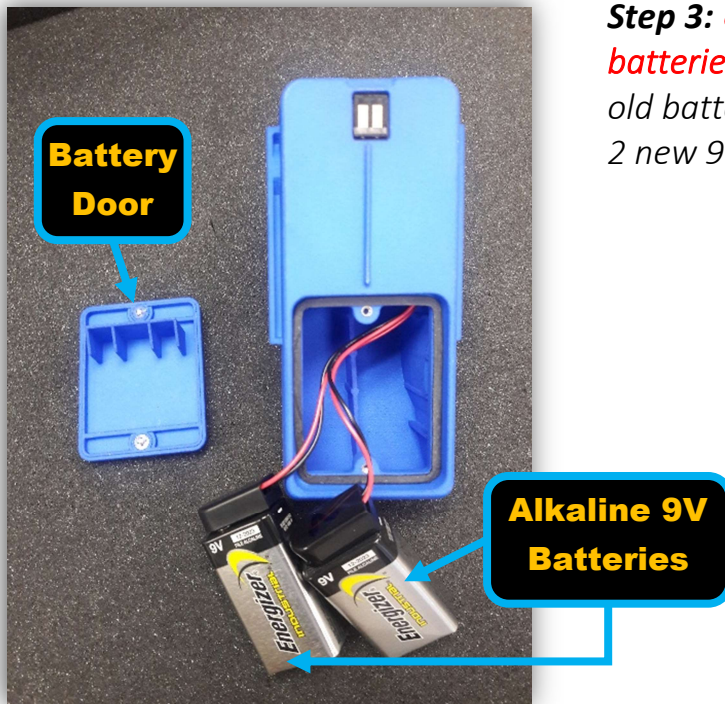


Trouble Shooting Guide

Replace Receiver Batteries



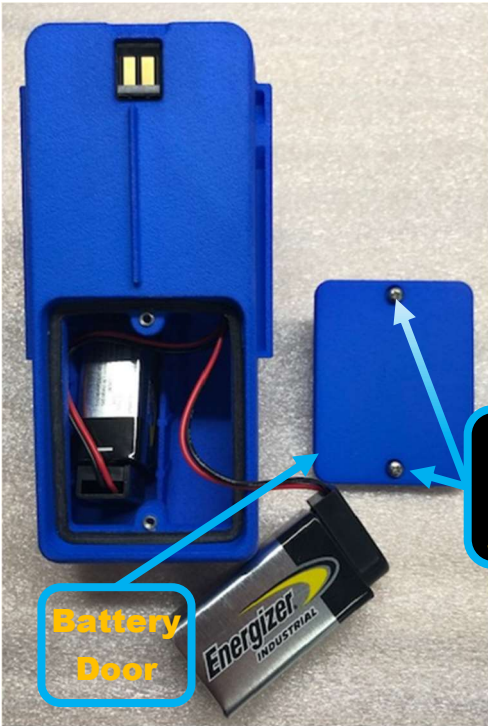
Step 2: *Make sure that the Receiver is turned off.* Then use a #2 Philips screwdriver to unscrew each screw on the battery door. *Be sure to not completely unscrew the 2 screws from the battery door or else the washers will detach.*



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

Trouble Shooting Guide

Replace Receiver Batteries



Step 3: This photo shows the battery caps assembled and **the proper orientation of the batteries with the wires facing up.**

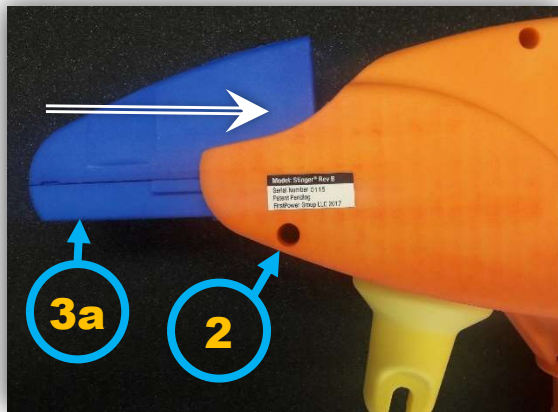


Step 4: Make sure the battery wires are routed as shown on this photo. This will prevent wire damage and allow proper battery door installation. Battery door must be installed flush. Screws must be recessed after installing. **DO NOT FORCE** screws in, if they don't easily screw in so they are recessed,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

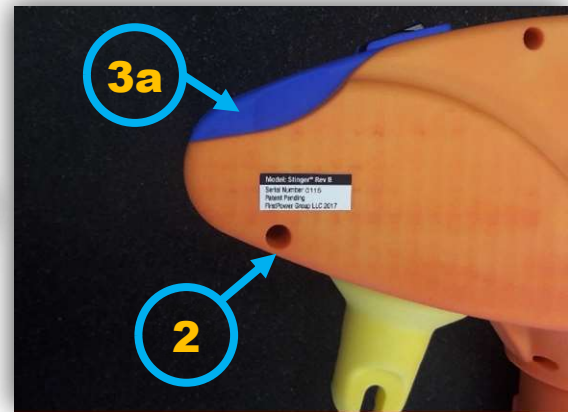
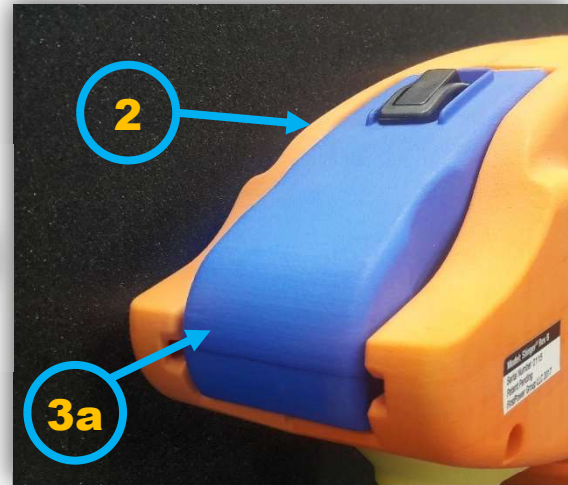
Trouble Shooting Guide

Step 5: Finally, insert the Receiver (3a) back into the back of the Main Assembly (2) as shown in the “Before” figures. Confirm that Receiver (3a) is fully inserted into the Main Assembly (2) as shown in the “After” figures.

Before



After



Stinger® Fluid Overview



1FR - Penetrant

Stinger® Fluid 1FR (Patent No. 10,689,591) 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.



2NP - Cleaner

Stinger® Fluid 2NP is a switch and contact cleaner and degreaser for removing contaminants, oils, adhesives, tar, sludge and corrosion. 2NP has a proprietary threaded top that allows it to only be used in the Stinger®. This fluid can be used on energized equipment.



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 Stinger® when not in use.
- **Remove can from inside Stinger® when not in use.**
- Remove batteries when stored long term.

Safety

Stinger®

- Do not use on energized equipment without the can cap installed.
- Make sure to practice operating the Key fob 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.
- When attaching the Stinger to the hot stick, assure the Stinger® is pointing at an angle, **and not pointing directly up**, so as to cause fluid to drop/back wash onto the top of the tool/receiver. This may cause the receiver to come out of the tool.

Stinger® Fluids

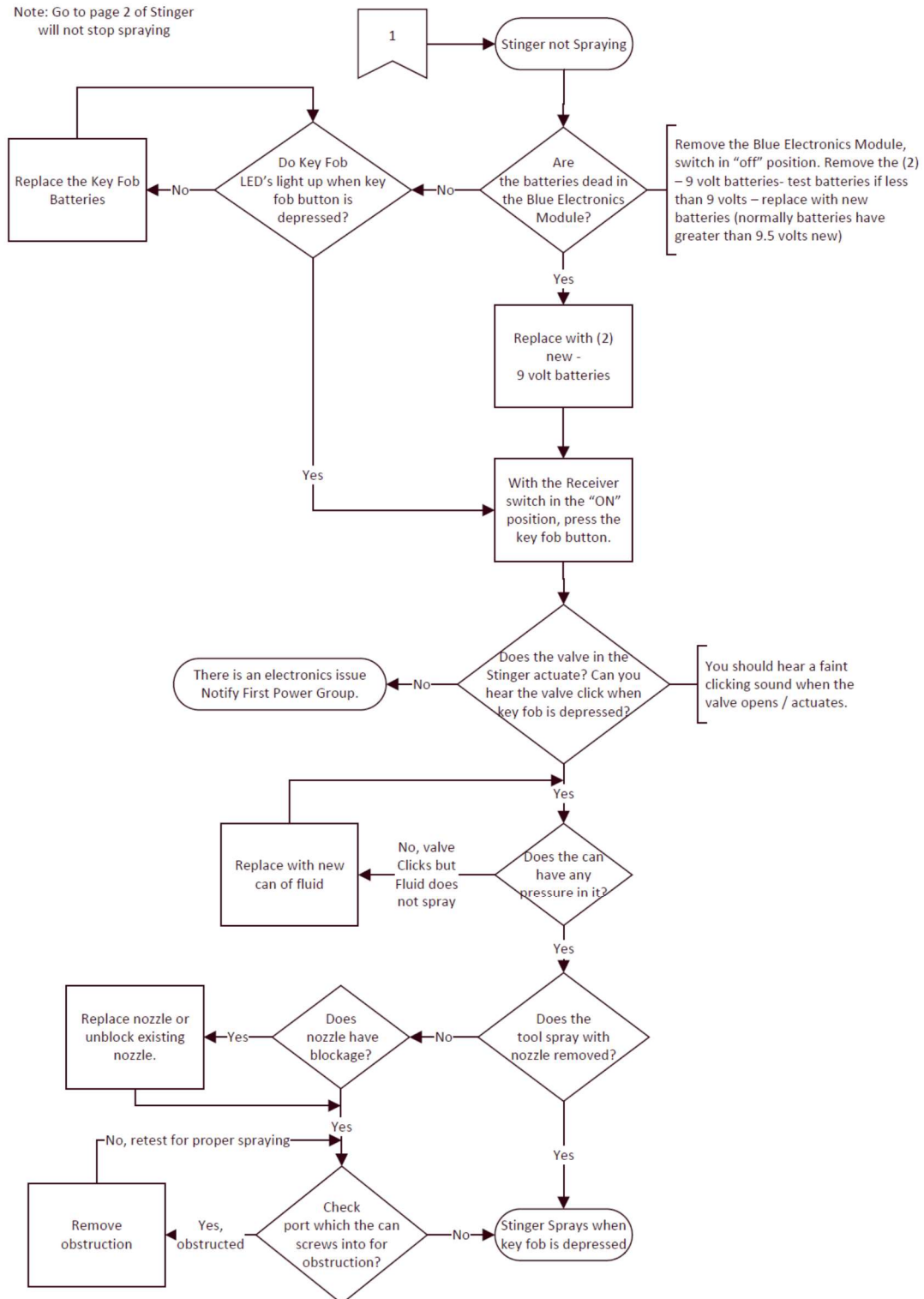
- If any fluids contact skin, please wash the area of contact immediately with soap and water.
- Do not ingest any of the fluids, if ingested please contact emergency services.
- Do not store fluids near extreme heat or cold because cans are under pressure.

Trouble Shooting Guide

PFC-02

Stinger V2 Trouble Shooting Flow

Rev 00 4/14/2021



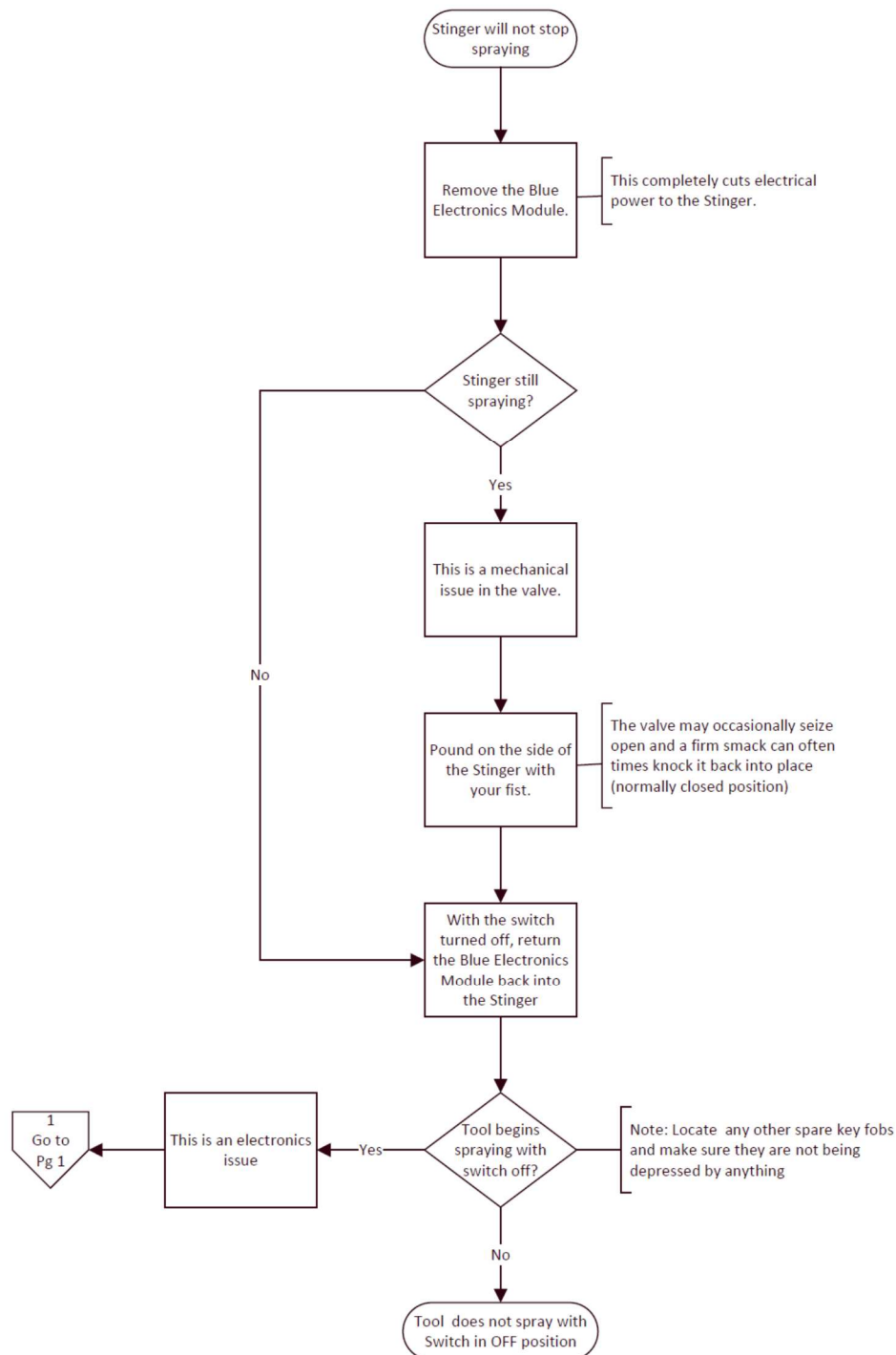
1 of 2

Trouble Shooting Guide

PFC-02

Stinger V2 Trouble Shooting Flow

Rev 00 4/14/2021



2 of 2

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 three years 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



| Number: | Part Number: | Description: | Quantity: |
|---------|----------------------|---|-----------|
| 1 | STGR-1000 | Main Assembly | 1 |
| 2a | STGR-3000 | Receiver | 1 |
| 2b* | | Transmitter* (key fobs) | 2 |
| 2c | STGR-3100LY | Lanyard | 2 |
| 3 | STGR-1344 | Nozzle Assembly | 3 |
| 4** | STGR-7000 | GoPro® Camera** | 1 |
| 5 | STGR-Aerosol 1FR | 1FR, (Patent No. 10,689,591), Not included in Stinger® Kit | 0 |
| 6 | STGR-Aerosol 2NP | 2NP, Not included in Stinger® Kit | 0 |
| 7 | STGR-Aerosol 3PAO | 3PAO, Not included in Stinger® Kit | 0 |
| 8 | Stgr-8100, Stgr-8200 | Battery box with 6- 9 volt batteries | 1 |

*The Receiver comes with two Transmitters and the Receiver exclusively with those included Transmitters.

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Questions?

**Contact FirstPower Group LLC
at 330-963-2050**

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