

## Quick Start Guide

### Important – Read and Understand Safety Warnings

ALWAYS KEEP YOUR INJECTOR AND/OR REMOTE POINTED IN A SAFE DIRECTION.

BE SURE YOU UNDERSTAND THESE INSTRUCTIONS AND WARNINGS BEFORE USING THIS INJECTOR.

FAILURE TO READ AND FOLLOW THESE INSTRUCTIONS AND WARNINGS MAY RESULT IN SERIOUS INJURY TO YOU AND OTHERS.

The INSTRUCTION MANUAL should always accompany the INJECTOR.

BEFORE HANDLING ANY INJECTOR, UNDERSTAND ITS OPERATION.

NEVER OPERATE THE INJECTOR WHILE UNDER THE INFLUENCE OF ALCOHOL OR DRUGS. Do not use your injector if you are on any medication which impairs, even slightly, your mental or physical ability.

If you feel uncertain about any operational aspects of your injector, please contact a qualified distributor or AcuShot Inc. before proceeding with its operation.

NEVER ALLOW AN INJECTOR TO BE USED BY INDIVIDUALS WHO DO NOT UNDERSTAND ITS SAFE OPERATION AND HAVE NOT READ THIS INSTRUCTION MANUAL.

NEVER DISASSEMBLE YOUR INJECTOR beyond any procedure outlined in this manual. This will VOID warranty. Improper disassembly or reassembly of your INJECTOR may be dangerous and can lead to serious injury.

NEVER MANIPULATE, ADJUST OR CHANGE ANY OF THE INTERNAL COMPONENTS OF YOUR INJECTOR UNLESS SPECIFICALLY INSTRUCTED TO DO SO IN THIS MANUAL.

NEVER ALLOW ANY ALTERATION OR REPLACEMENT OF PARTS IN YOUR INJECTOR UNLESS PERFORMED BY A QUALIFIED TECHNICIAN.

**\*\*\* (Not to be used on humans) Livestock use only \*\*\***

**\*\*\* Can cause serious injury to humans \*\*\***



RECHARGEABLE LITHIUM POLYMER BATTERIES MUST NOT BE DISPOSED OF IN MUNICIPAL WASTE. PLEASE DISPOSE OF BATTERIES IN ACCORDANCE WITH LOCAL REGULATIONS.

### Personal Protective Equipment (PPE)



ALWAYS WEAR EYE PROTECTION every time you handle your INJECTOR for cleaning and maintenance.

ALWAYS WEAR EYE AND HEARING PROTECTION every time you discharge your INJECTOR. Make sure others in the vicinity of where you will be shooting do so as well.

Use ear plugs or earmuff-type protectors to help guard you against cumulative, permanent hearing loss as a result of continuous exposure to shooting noise. Glasses will help to guard you against sprays, particulates, and other debris that could shoot out the orifice during a discharge and during maintenance.

**\*\* If someone receives an accidental inoculation seek immediate help from a healthcare professional \*\***

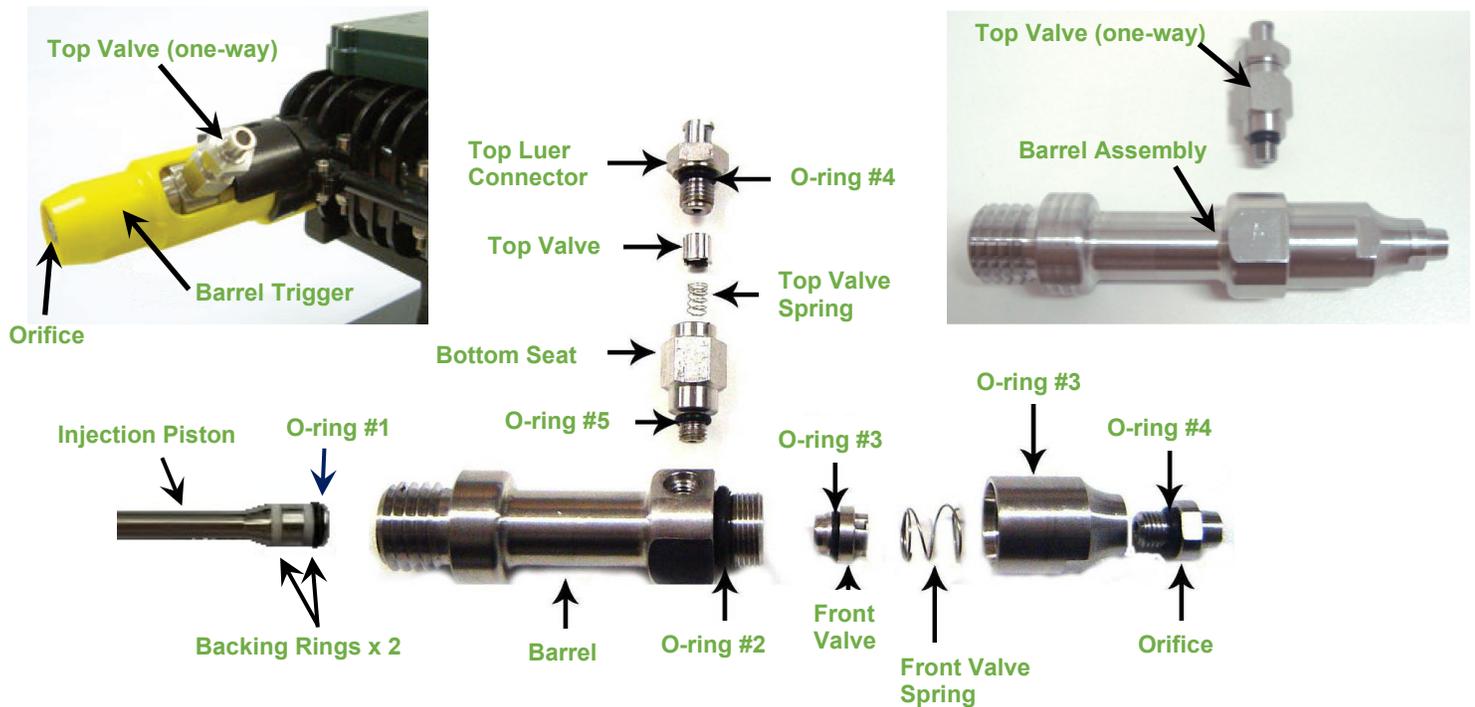
## BEFORE YOU BEGIN

1. Have you done the required maintenance?
2. Are the batteries charged?
3. Check all fittings to make sure the injector will not leak or pull in air.
4. Do you know which Power Cylinder is in the injector?
5. Make sure you have a syringe full of sterile water.

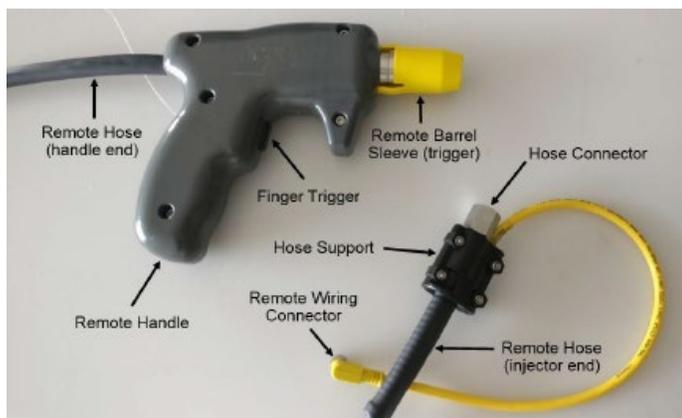
Do not dry fire the injector.

Excessive dry firing or "Dry Shots" can lead to Power Cylinder failure.

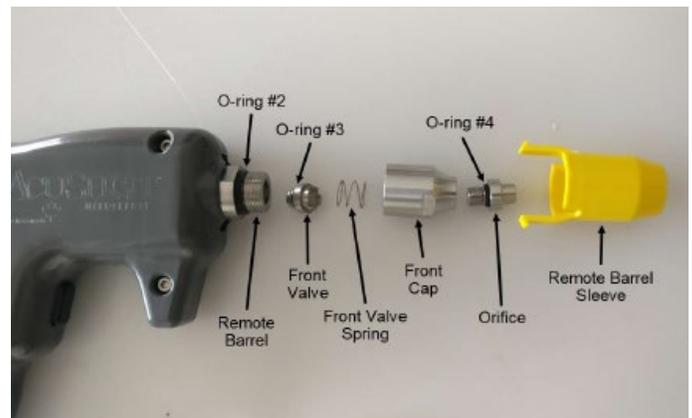
## Injector Parts



## Remote Parts



## Remote Barrel Parts



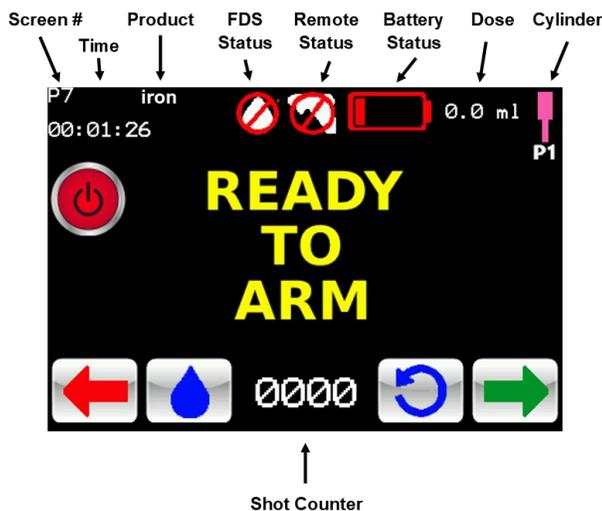
## Power Cylinder Selection Charts

Pigs	Acushot configuration	Age & dose Volume	Weight	Intradermal	Subcutaneous	Intramuscular
New Born	Hands free	1 to 7 Days	3 to 5 lbs 1.3 to 2.25 kg	Pink	Pink (a)	Pink/Green
Piglet	Remote Hand piece	1 to 3 weeks	7 lbs or 3.2 kg	Green	Green/Blue (a)	Green/Blue
Nursery Pig	Remote Hand piece	3 weeks - 10 weeks	10 to 60 lbs 4.5 to 27 kgs	Blue	Blue (a)	Blue/Red
Finisher	Remote Hand piece	10 weeks +	60 to 265 lbs 27 to 120 kg	Blue/Red	Red (a)	Red/Yellow
Gilt/Sow	Remote Hand piece	1 - 2.5cc (b)	275 to 500 lbs 125 to 225 kg	Red	Red/Yellow (a)	Red/Yellow (a)

(a) Injection site selection, technique and dosage volume must all be considered when targeting the Subcutaneous tissue, typically the similar sites as traditional practises work very well.

(b) In Sows, if product to be injected has an oily carrier, utilize Yellow Power Cylinder

## Task Bar and Shot Counter



- Screen #:** The current screen number being displayed
- Time:** The current time of day (can be set by user in settings menu)
- Product:** The product being injected (can be set by user in settings menu)
- FDS Status:** Not currently available
- Remote Status:** Status of remote extension connection (Active or Disabled)
- Battery Status:** Battery charge status (1 to 6 bars)
- Dose:** Dose to be drawn during next arming cycle as selected by user (0.2 ml to 2.5 ml)
- Cylinder:** Cylinder colour selected by user (must match cylinder installed)
- Shot Counter:** Displays the number of shots fired by injector since last reset by user

## OPERATIONAL BUTTONS

Buttons that control operation of the injector. Some features may vary by active screen.

- POWER** begin power off sequence
- NEXT** go to next screen
- PREVIOUS** go to previous screen
- EXIT** exit current settings item
- CHECKMARK** accept change or activate
- X** de-activate
- PLUS** increase value or selection
- MINUS** decrease value or selection

- INFORMATION** display additional information about error
- CYLINDER/DOSE** select cylinder & dose (page XX)
- FDS** currently unavailable
- RESET DAILY COUNT** reset session counter (page XX)
- SETTINGS** change settings (page XX)
- INTERNATIONAL SETTINGS** change date and time, or language
- SETTINGS LIST** menu list for settings

## START-UP STEPS

1. Install required power cylinder. See selection chart above and see page 15 for installation instructions.
2. Fill one of the 60cc syringes supplied with sterile injectable water and connect it to the injectors Top Valve using the tubing and Luer Lock connectors supplied. Make sure that all the air has been removed from the syringe and the supply tube before connecting it. See page 23.
3. Prime the injector (and remote hand piece if in use) by holding the injection tip high up in the air and pushing water through the system using the syringe that was just attached to the injector. See page 23 & 25 (if using remote).
4. Connect the battery to power on the injector and install battery in compartment. See page 13.
5. When prompted, press the Hands Free button or the Remote Hand-Piece button to select the appropriate setup. Next you will be prompted to Activate Triggers to Use. You must activate each of the triggers indicated on the display to proceed. See page 26.
6. On Home Screen press CYLINDER & DOSE button and advance through screens to change cylinder and dose if required. A dose size of 2.0ml or higher is recommended for priming. After setting dose press the NEXT button to go to Ready to Arm screen. See page 31.
7. Follow Priming Cycle Method to finish priming injector. This should leave the injector on the Ready to Fire screen. The Priming Cam Lever should now be in the disengaged (lock) position. See page 24.
8. Activate appropriate trigger(s) to fire three to four test shots with sterile water to ensure unit is working well and all air is removed. See bottom of page 25.
9. Now you can disconnect the sterile water and hook up product to be given. See page 22.
  - a. The injection barrel can hold up to 2.5 ml depending on the dose you have set.
  - b. 48" remote extension holds 6 ml.

Based on the Dose Size selected, fire enough shots to get the product to be injected all of the way through the system to the orifice.

10. Press red BACK button to return to Home Screen and Press CYLINDER & DOSE button. Follow prompts to select dose required for injections and press green NEXT button to advance to Ready To Arm screen. See page 29
11. If desired, press the RESET DAILY COUNT button and then press again to reset counter. See page 32.
12. Press the green NEXT button to advance to Ready to Arm screen. When you press the NEXT button again, the injector will arm and display the Ready to Fire Screen.

**The injector is now ready to start injections.**

## SHUT-DOWN STEPS

1. Make sure to use product left in unit and remote hand piece when you are down to the last few animals by switching from the product being injected, back to the sterile water.
2. Follow the cleaning instructions in the owner's manual, clean product out of gun by using sterile water or if it is a non-water-based product take one syringe with warm water and add a drop of dish soap to help breakdown the oil in the product. Run the dose setting back up to 2cc to push more volume through the unit. After several shots (5 to 10 shots) of this soapy solution switch to sterile water and give 5 to 10 more shots of sterile water to insure the injection barrel is rinsed free of all the soapy solution, This leaves the injector clean, primed and ready for the next use.

\*\*\*Always leave the syringe with sterile water connected to the unit when not in use\*\*\*

3. DO NOT USE Alcohol or Ammonia to clean the internal parts of the unit. DO NOT Submerge injector or remote hand piece when cleaning. Use disinfecting wipes (i.e. Clorox wipes) or to wipe down external surfaces. The soft side pack can be washed by itself in the washer.
4. Once the unit is clean, press the red POWER button on the display to begin power off sequence. If Fire No Re-Arm screen is displayed, then fire one last shot to disarm injector. The unit will then display the screen asking you to Disconnect Battery which will shut the injector off.
5. The battery MUST BE UNPLUGGED AND REMOVED from the unit and charged before storing.

## MAINTENANCE SCHEDULE

### DAILY MAINTENANCE:

- Attach a clean supply of water to the injector (to replace the vaccine or medication supply) and shoot the injector several times to rinse the barrel, hose and remote extension hand-piece thoroughly.
  - Hot water and mild detergent can be used to flush the system for clean up after sticky or oily products. This can be done through the injector and the hand-piece if applicable
  - When using the remote hand-piece, it is important to regularly rinse the barrel trigger, as it can become sticky
- **DO NOT SUBMERGE THE INJECTOR OR REMOTE HAND-PIECE UNDER WATER**
- Disconnect the battery from the injector and charge it.
  - The battery should be allowed to cool down (5 – 10 minutes) before recharging

### WEEKLY MAINTENANCE:

- Replace the injection piston o-ring #1 (see owner's manual for instructions)
- Rinse and clean the barrel, barrel nut, front valve, and front valve spring
  - (this is also a good time to boil these parts in de-mineralized water for 20 minutes if you want to sterilize them, but it is not required)
- Remote Hand-Piece
  - Remove the barrel trigger, rinse and clean
  - Remove the orifice, barrel nut and the front valve. Rinse and clean.
- Remove the top one-way valve, and disassemble it to thoroughly rinse and clean the top valve and top valve spring (in the owner's manual you will find an enlarged picture that identifies all of the barrel assembly and top one-way valve parts)
- Once the unit is reassembled, follow the instructions found in "Air Removal Procedure" in the owner's manual before you begin injecting vaccines.

### MONTHLY MAINTENANCE:

- Do the following in addition to the weekly maintenance schedule:
  - Replace barrel o-ring #2, front valve o-ring #3, orifice o-ring #4, and bottom seat o-ring #5.
  - Inspect top luer connector o-ring # 4 and replace only as needed.