

# Users Manual

Automatic Vaccinator for Poultry (Dual Syringe)



Changzhou ZA Medical Devices

May, 2012

## Product Introduction

The automatic vaccinator for day-old chick is a patented device developed and manufactured by Changzhou ZA Medical Devices (ZAM), China. The device is used for the injection of day-old chicks or within 7-days poultry. The device is suitable for the administration of live vaccines (Marek Disease), killed vaccines (ND Inactivated), antibiotics or vitamins. It has the features of rapid injection, easy operation and accurate dose.

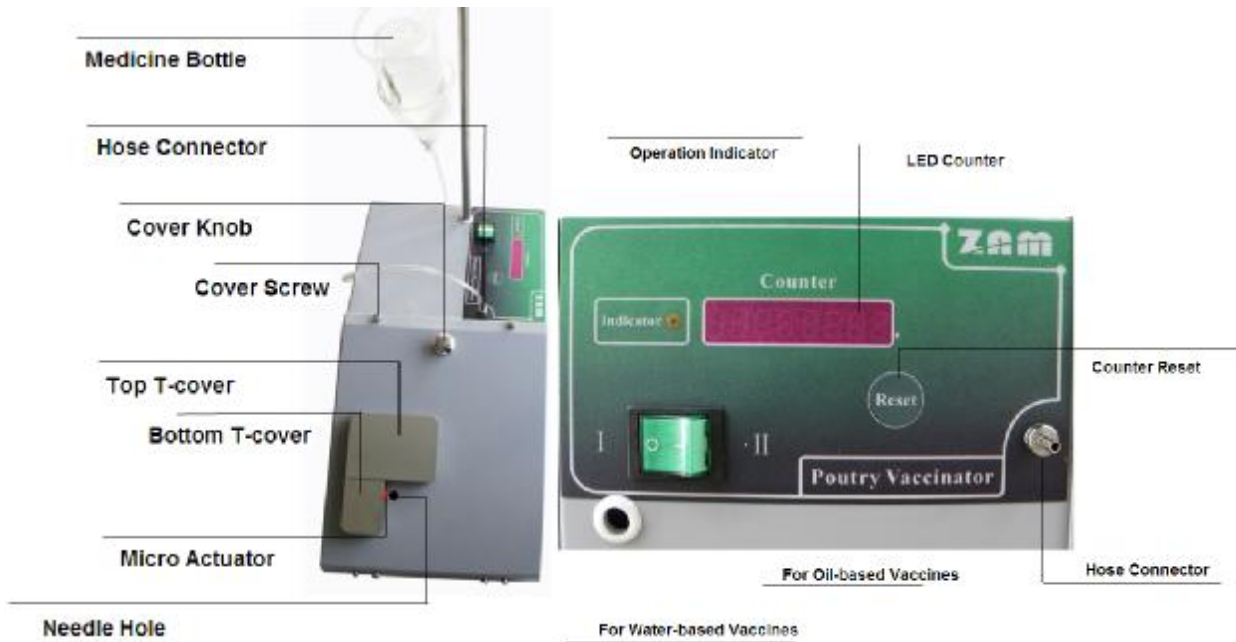
### 1. Technical Specifications

Driving Power	Linear Voice Coil Motor
Power Source	AC: 220V 50HZ
Injection Dose	Syringes dose 0.2ml, 0.3ml and 0.5ml
Injection Accuracy	$\pm 0.01\text{ml}$
Key Component Material	Stainless Steel, Medical Silicon/Nylon Tube
Suitable Injection Objects	Within 7-days Poultry (Chick, Duck, etc.)
Suitable Vaccines	Water or oil based vaccines
Max. Injection Rate	5000 per hr
Net Weight	9 kg

### 2. Package Components

1. Machine Body
2. Power Wire
3. Vaccine Bottle Hanger
4. No.7 Needles (20)
5. 50ml Syringe
6. Medical-use Soft Tube
7. Needle Clipper
8. Users Manual
9. Instruction CD

### 3. Product Overview



## Installation Guide

**1<sup>st</sup> Step: Needle Fix** (Use the same size needles as provided)



- ① Press and hold the both sides of the top T-cover, and remove it.
- ② Counter clockwise rotate the needle and loose the needle by the provided clipper.
- ③ Take off the needle.
- ④ Get a new needle from provided bag.

- ⑤ Clockwise rotate the needle into needle set by hand.
- ⑥ Tighten the needle using provided clipper.
- ⑦ Place the top cover in situ.



**Needle Installation Completes.**

**2<sup>nd</sup> Step: Install Bottle Hanger** (The bottom end screw fits into a screw nut inside the machine body)



- ① Take out the hanger.
- ② Insert the bottom end of the hanger into the hole on the top face of the machine body.
- ③ Clockwise rotate the upright hanger and tighten it.



**Hanger Installation Completes.**

**3<sup>rd</sup> Step: Soft Hose and Vaccine Bottle Connection**



- ① Connect one end of the provide soft tube with a needle.
- ② Connect the other end of the tube with the connector at the back cover of the machine body.
- ③ Insert the needle into the bottle filled with vaccine solution.
- ④ Hang the bottle onto the hanger.



**Vaccine Connection Completes.**

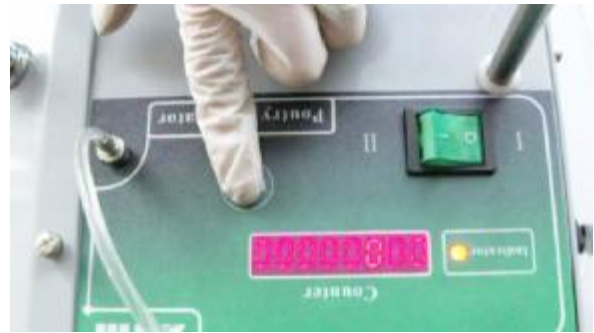
## Operation Instruction

### 1<sup>st</sup> Step: Preparation before Injection



- ① Plug the provided power wire into 220V power source and into the socket at the back of the machine body.
- ② Switch on the power.
- ③ Trigger the micro actuator several times by a stick until jet comes stably from the needle.

**Caution : Do not finger trigger the actuator as it could cause needle injury.**



④ Press the Reset Button to zero the counter on the LED screen.



**Injection Preparation Completes.**

**2<sup>nd</sup> Step: Injection** (Novice operators are advised to follow the normal steps as following)



The operator is advised to position aside the machine body and to face the poultry box as shown above.



- ① Catch a chick by hand, then switch to the other hand by pinching chick's front neck.



- ② Slide the chick into the injection position, be sure the chick is facing up, with its back tightly contact with the machine body, and head slightly touching the top cover.
- ③ Trigger the micro actuator by pressing the chick left, make sure the chick left contact with the bottom cover.

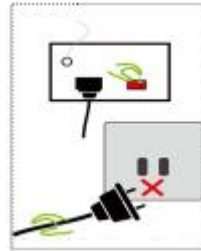
**The counter on LED screen increases automatically after each injection. When the machine sounds a "di..." blew, the injection counts up to 100 times (The number can be set upon request).**

## Maintenances and Precautions

1. When the machine sounds a "di..." blew, the injection counts up to 100 times (The number can be set upon request).

2. Press the Clear Button to start over the counter when necessary.

3. When not in use, switch off the power as shown left.



4. After usage, take off the Top T-cover and clean off the liquid when necessary.

5. Do not touch the micro actuator by hand, as it could cause needle injury.

6. Do not open the product unless permitted by our technical staff.

## 1. Internal Cleaning



① Take off the Top T-cover.

② Push the needle flange outward so that the needle extends outside of the injection hole.

③ Inhale disinfection alcohol (or steamed water) to the syringe and connect the syringe with the connector at the back of the machine body.

④ Push the syringe so that liquid comes out and washes the internal tube.

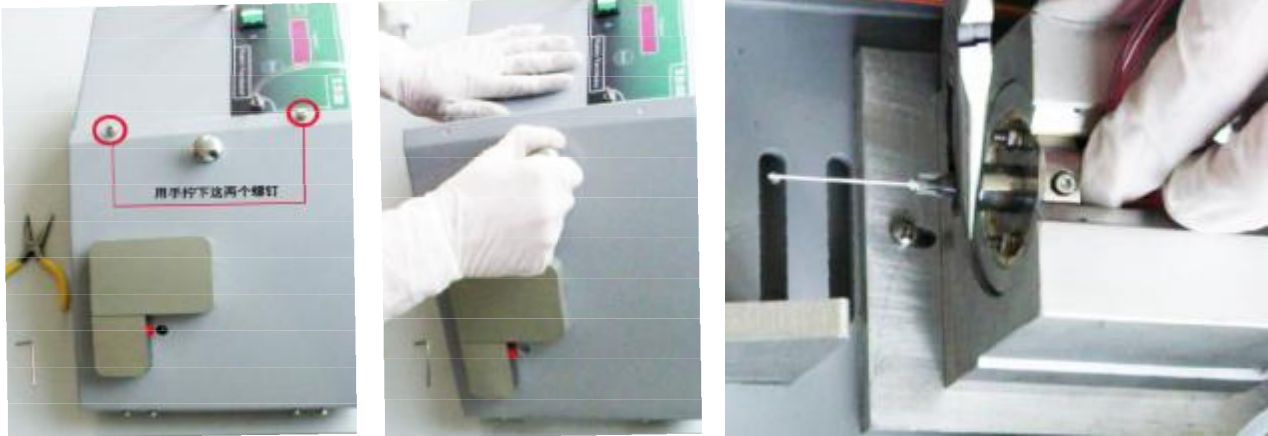
**Caution : The disinfection liquid needs to be ejected before next usage. The same syringe could be used to inhale air and push the liquid out.**

⑤ Push back the needle flange.

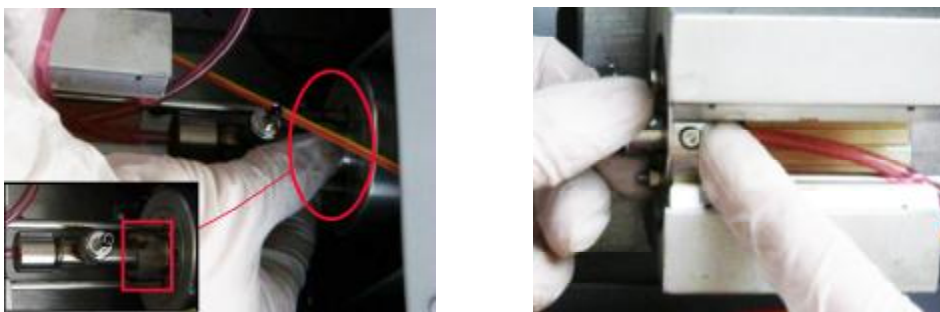
⑥ Position back the Top T-cover.

## 2. Routine Sterilization and Disinfection





- ① Loosen the two screws on the cover.
- ② Open the cover by pulling the knob.
- ③ Push the needle flange outward and take off the needle by the clipper provided.



- ④ Counter-clockwise loose the ampoule fixture as indicated by the above red circle and take off the ampoule.
- ⑤ Loosen the screw on the needle flange by a wrench as indicated below.



- ⑥ Take off the needle flange.
- ⑦ Take off all the parts that contact with liquid.

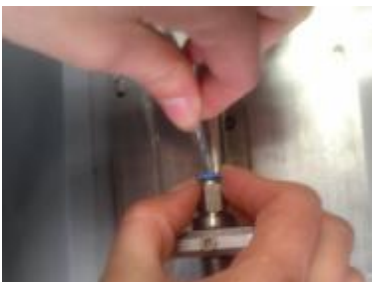
**Method of Sterilization:** The sterilization method can be any of the methods provided by

vaccine manufacturers. The most common method is to boil or steam the items for a period of time.

\* After disinfection, install all the disinfected parts back following the reverse procedure of steps 1-7.

## Instruction for Dose Switch

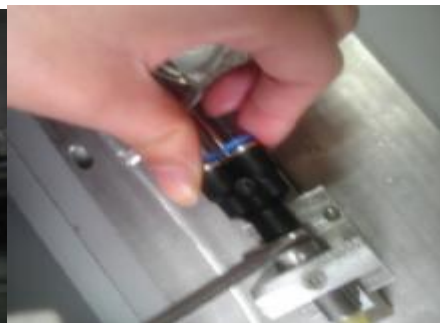
### 1. Single syringe injection



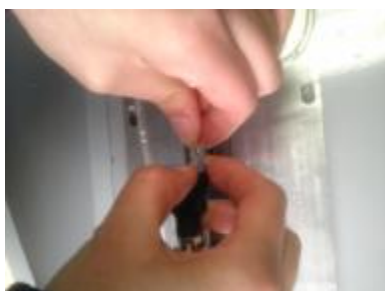
① Select a 0.2ml or 0.3ml syringe, push the open end of the soft tube to the blue connector cap of the selected syringe.

② Tie up the unused soft tube and put it aside.

### 2. Double syringe injection



① Take off the connector with a wrench, and replace it with a provided tee connector.



② push the open ends of the two soft tubes to the corresponding blue connector caps, as shown above.

## Maintenance and Alerts



In case of needle blockage (the needle comes out normally, but no liquid injection), the machine will issue a "di, di ..." short siren. Turn off the power switch. You just need to replace the needle.



If the micro actuator breaks in the course of usage, take it down (take off the top cover first, then bottom cover. The method is similar to the installation step 1), and sent it to us or our distributor for replacement;



Other faults, please contact our technical or sales staff.

Manufacturer: Changzhou ZA Medical Devices Co. Ltd., China

Address: Suite 2517, Building No.2, Science and Education Park, Wujin District, Changzhou City, Jiangsu Province, China.

Tel: 86-519-86339763

Fax: 86-519-86339763

Zip Code: 213164

Website: [www.zamedical.com](http://www.zamedical.com)

Email: [zamedical@yahoo.cn](mailto:zamedical@yahoo.cn)