

# Operation Instruction for Fish Vaccinator

## Vaccination Preparation

1. Check the installation of the vaccination machine to ensure that the machine is installed properly.
2. After power-on, observe the parameters on the controller panel display, adjust the parameters according to the actual needs vaccination. See Figures 1. 2. 3.



Figure 1 Interface during power-on



Figure 2 Interface for parameter adjustment

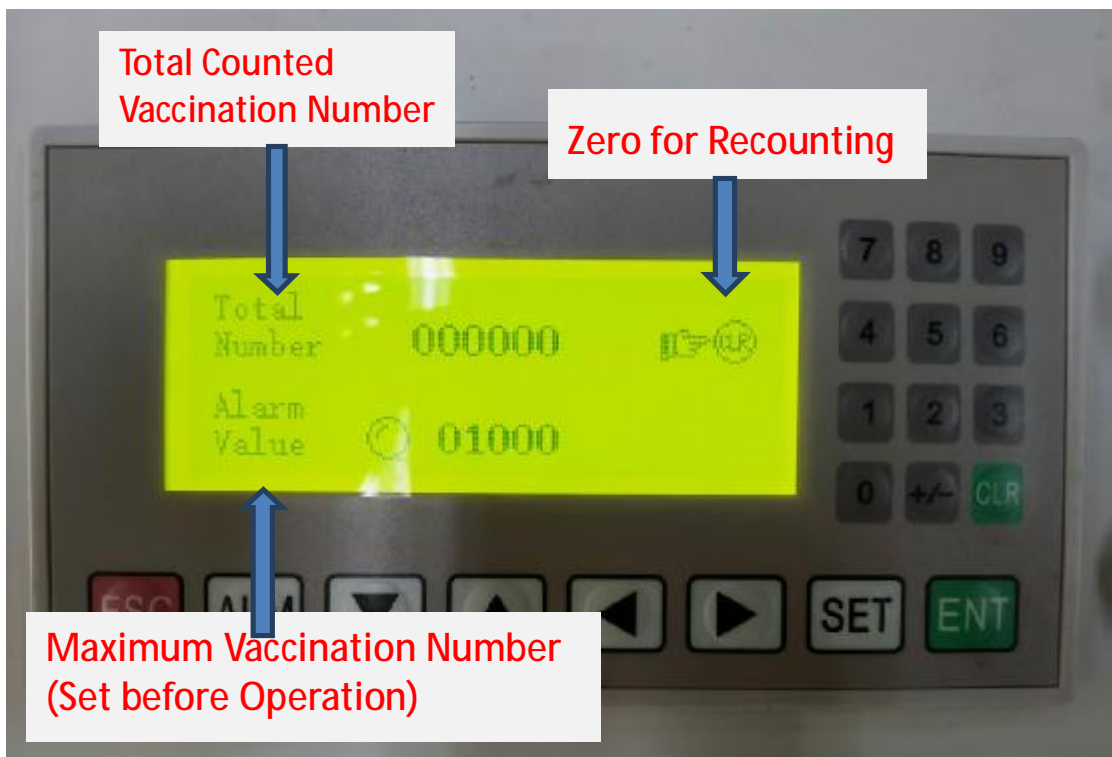


Figure 3 Interface for parameter adjustment (2)

“Total Number” indicates the total counted number of vaccinated fish.

"CLR" means that the value of the "Total Number" item will be

zeroed by pressing the key.

“Alarm Value” indicates the maximum number of vaccinations per batch, and the screen alerts when each batch reaches that value.

Before start vaccination, look at the screen panel to see if the parameters are displayed correctly. After confirming that the display is correct, set the “Alarm Value” entry, and if the Total Number entry is not 0, zero the value by pressing the “CLR” button.

## **Vaccination Operation**

1. Power-on the water pump.
2. Press the "RUN" button on the controller, and you can observe the lower plate of the retainer (for fixing fish) lifted to flush with the runway. Then put the fish in the slide entrance, gently push it and let it slide to the bottom of the runway, during which the photoelectric detection sensor will detect the target fish passing through. When it stops at the bottom of the runway, the retainer upper plate will be lowered to hold the fish firmly, together with the lower plate. At this point, the syringe will travel in the direction of the fish and the needle will be inserted into the inoculation site of the fish.



Figure 4 Control Panel and “Run” button

By adjusting the adjustment knob of the upper plate of the retainer, you can adjust the angle size between the upper plate and the lower plate to suit different sizes of fish. As shown in Figure 5 and 6.

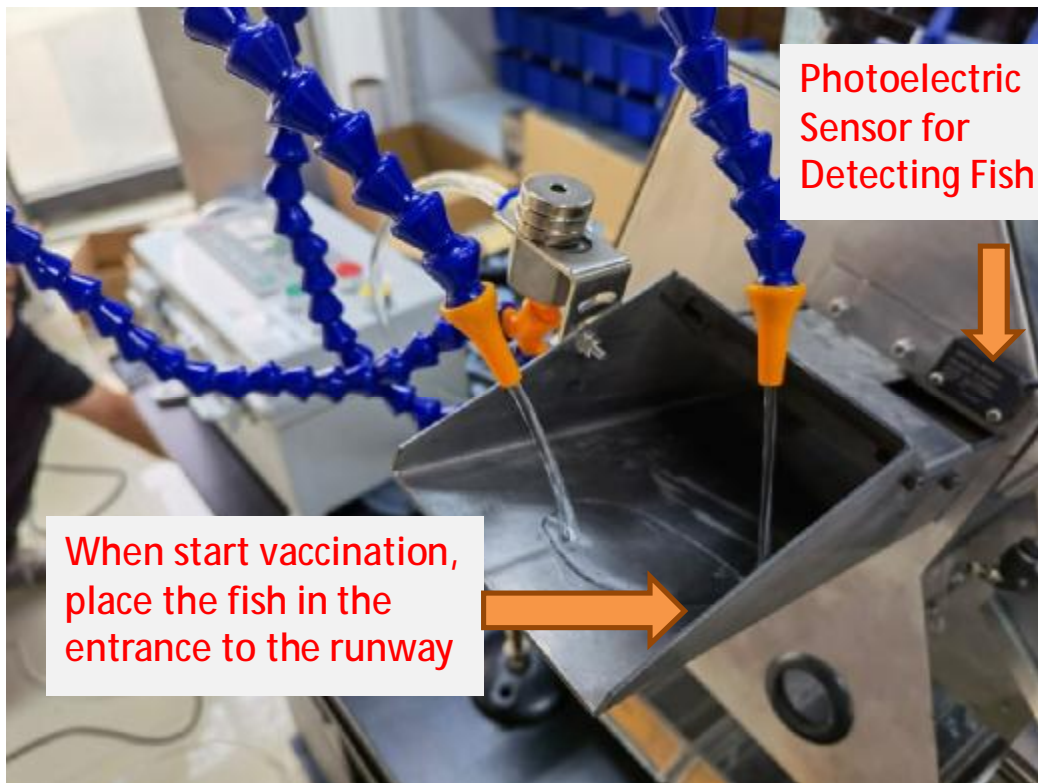


Figure 5 Runway Entrance

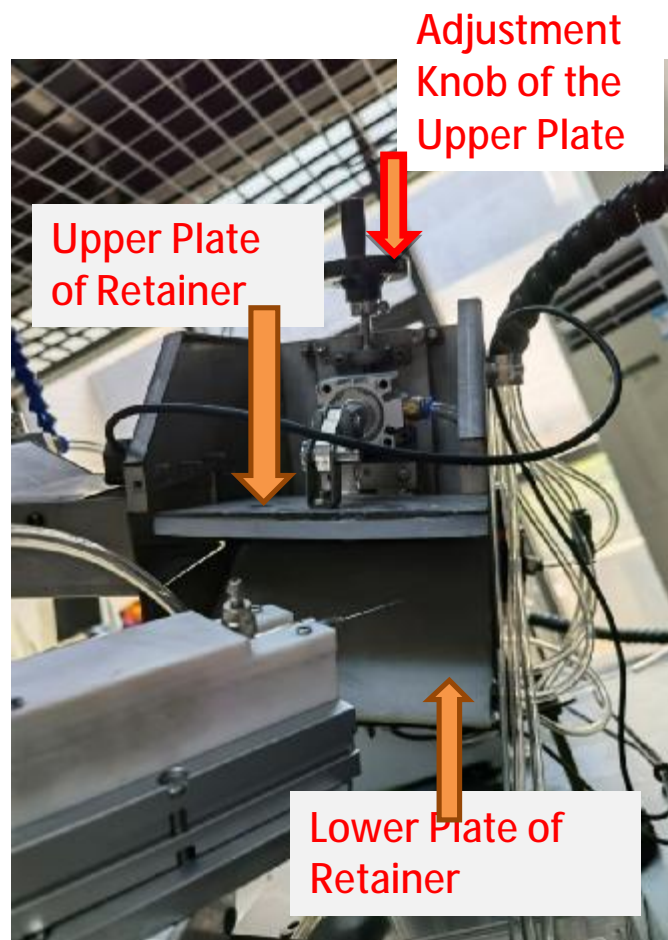


Figure 6 Upper and lower plates of the retainer and adjustment knob

During injection, if the injection site and depth are found to be inappropriate, you can adjust the corresponding adjustment knob for proper injection. As shown in Figure 7.

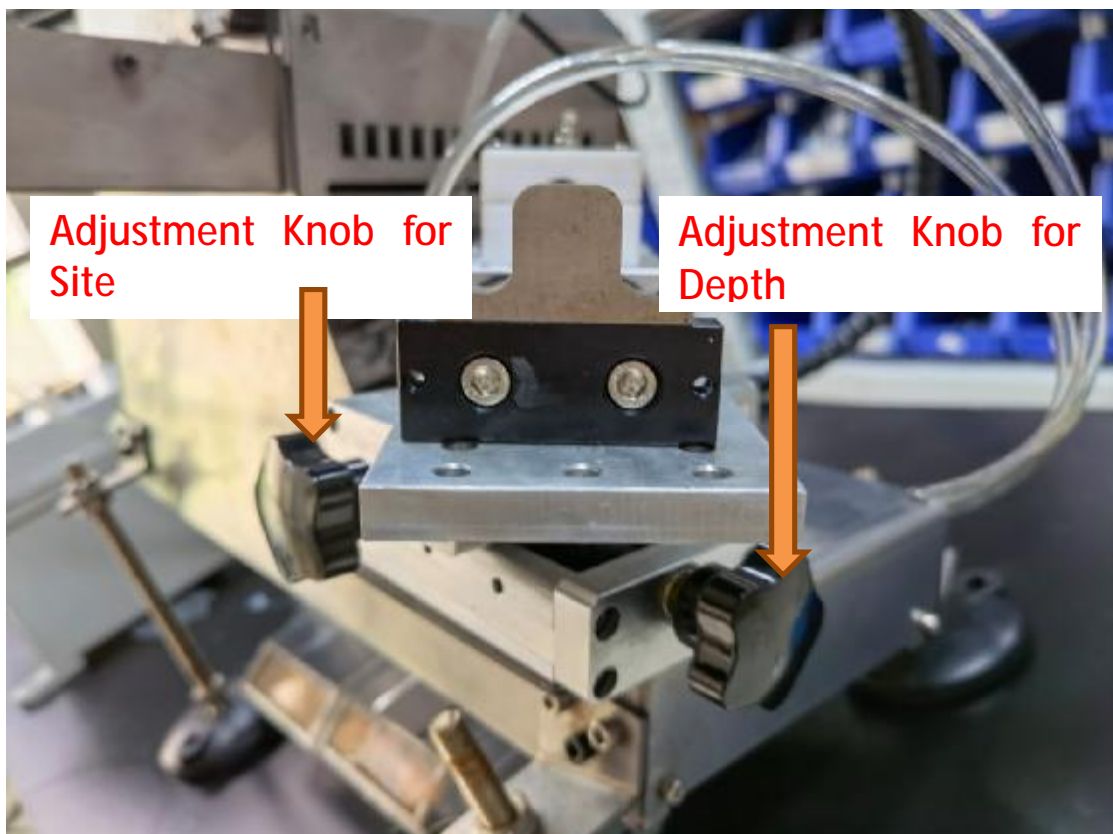


Figure 7 Adjustment knobs for Site and depth

Before injection, the injection dose can be adjusted according to the need. The method is: first loosening the fixed nut on the syringe end, rotating the pushrod, adjust the injection dose for accurate dose, tighten the fixing nut. As shown in Figures 8 and 9.

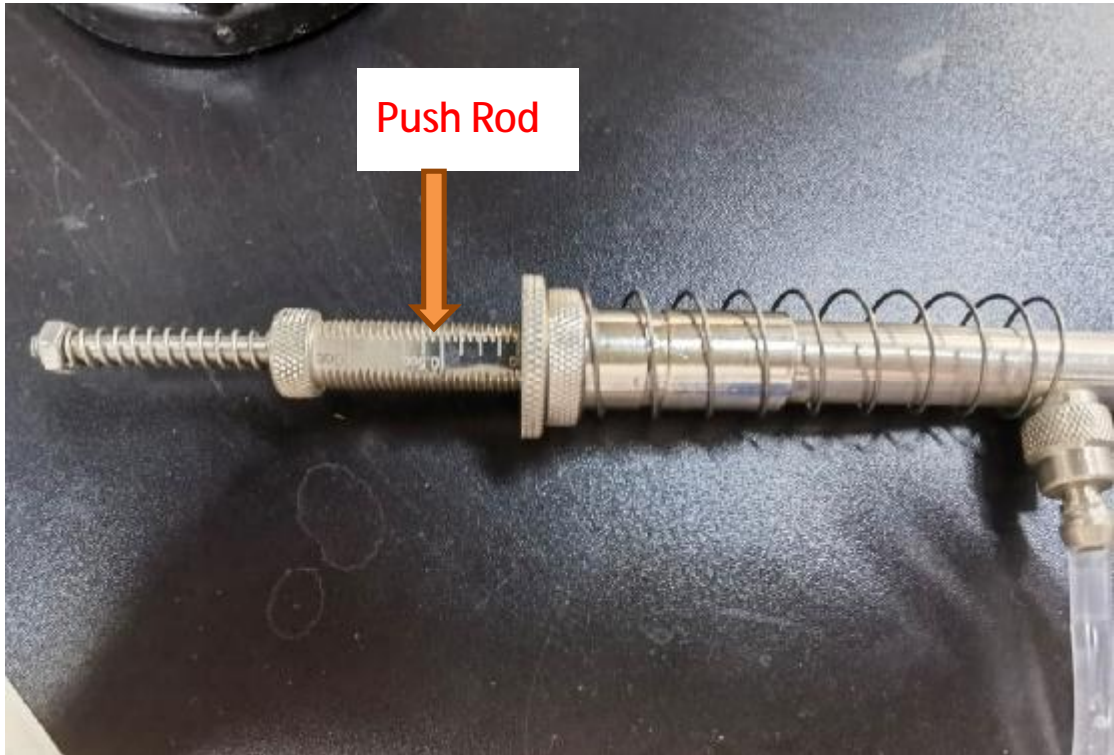


Figure 8 Syringe before dose adjustment

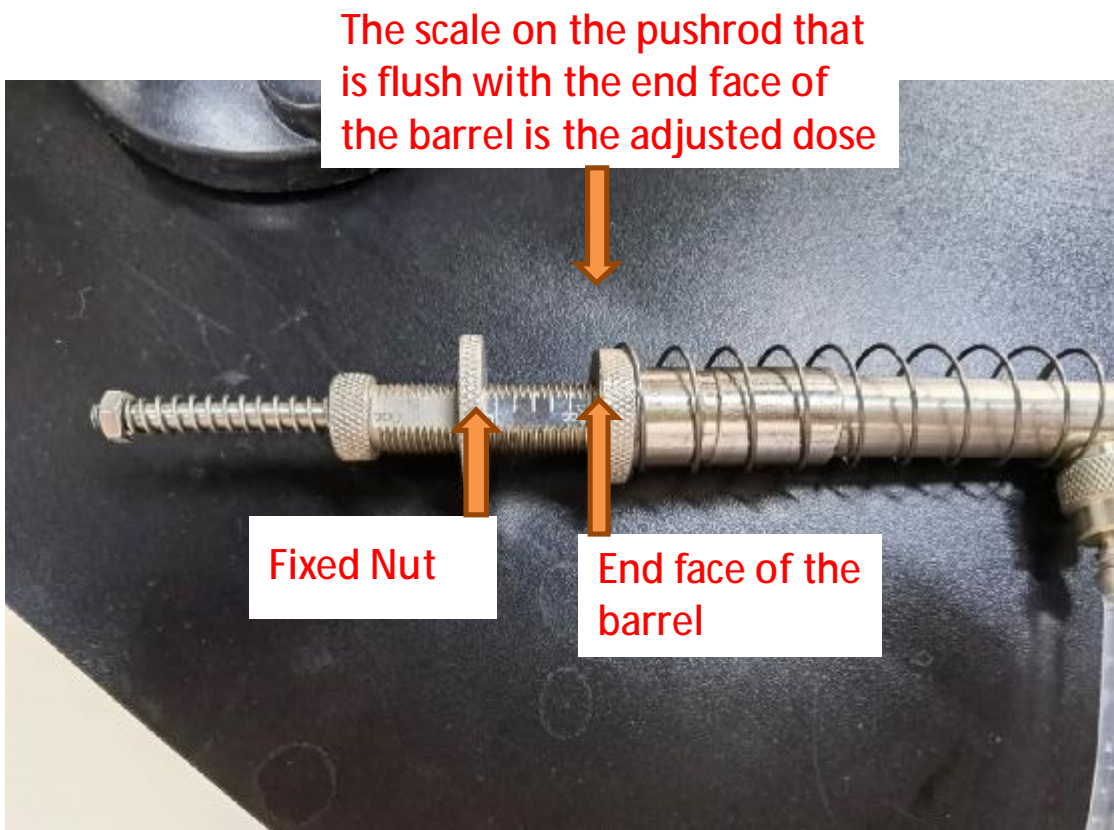


Figure 9 Syringe during dose adjustment

During injection, if the fish after injection cannot be unloaded by the retainer, you can press the "Unload" key on the controller panel. If the injection is complete, press the "Stop" key. As shown in Figure 10.



Figure 10