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## **“InsectaZooka” 2888A**

### **Instructions**

#### **Aspirator description and Background:**

Devices, referred to as aspirators, have been used for many years to collect insects. These devices operate by using a vacuum to pull the insect specimens into collecting vials or containers. The needed vacuum pressure is generated either by human lungs or by motorized fans. Many smaller aspirators, both mouth and mechanical, exist today. Larger aspirators are not as common. Larger aspirators are used to collect insect specimens in crop fields and in situations where users (collectors) need to collect specimens that are either flying or are in open areas that do not lend well to the use of small aspirators. These situations require enough suction or air flow to bring flying insects of various sizes into a collection cup.

Though larger aspirators currently exist, the new technology incorporates equipment that is lighter in weight, more compact and portable. The new device weighs only 2.7 pounds with a battery weight of 11 pounds. A current electric model weighs as much as 25 pounds. Currently, larger aspirators are worn as backpacks. This is the only way to organize and carry all the components needed to complete the system. The new aspirator is hand held, but can be attached to a shoulder strap that is worn by the user. The battery is either worn on the shoulder in a canvas bag, or placed in a fabric backpack or daypack. The arrangement of aspirator and battery allow the operator greater flexibility and mobility than with a backpack style aspirator.

The InsectaZooka has an overall length of 47” when fully assembled. It breaks down into three sections. The first section, which is the drive unit, is 13.5” long. The second and third sections or pick-up tubes have an overall length of 16.5”. The system allows the use of one or two pick-up tubes.

**Operation:**

Assemble aspirator with collection cup.

Ensure power switch is set to “off” and speed adjustment is turned as low as possible.

Connect electrical cord terminals to 12 volt battery or cigarette plug. Polarity is important.

Make sure that the ribbed or positive lead is connected to the positive terminal of the battery.

Wire terminals are marked positive and negative to aid in connections.

Place battery in shoulder sling or backpack.

Place shoulder strap on shoulder and adjust to best length.

Connect strap to drive unit.

Always power up the InsectaZooka with the volume knob turned all the way down.

Turn switch to “On” position. A blue light should appear near the speed control knob.

Listen for the beep or chime sequence. After chime sequence, adjust speed control knob to desired level.

When collection cup is at capacity, screw on lid and then turn off power to the aspirator.

Always turn power switch off when not in use.

Remove collection cup.

**Caution:**

Failure to follow start-up procedure may result in failure of the motor control unit. If the start chime is not heard or the light does not appear, disconnect power to the battery and retry.

During development of the system, several failures were experienced in which the unit did not start and smoke began to appear in the drive unit. The cause of the failures is unknown. If the aspirator fails to operate and smoke is seen, turn switch off immediately and disconnect power to the battery. Contact BioQuip Customer Service for assistance. In returning failed equipment, return only the drive unit.