



## Instructions

### *Description*

The Fay-Prince Trap, Model 712 is a daytime trap which is quite specific for *Aedes aegypti* and *Aedes albopictus* adults of both sexes; it will capture gravid and nulliparous females. The trap was designed and field tested by scientists from the Technical Development Laboratories of the Communicable Disease Center, DHHS. The design is based on the attraction of contrasting gloss black and white panels and



employs a wind-orienting cover and cylinder housing a suction motor and suspending the collection bag.

### *Operational Details*

#### Trap Location

Trap location is critical with the Fay-Prince Trap. As *Ae. aegypti* and *Ae. albopictus* are not powerful fliers, probably not moving more than a few hundred feet per day, traps must be located in the proximity of suspected breeding areas. Because *Ae. aegypti* is a semi-domestic mosquito, breeding almost exclusively in artificial containers in and around human habitation, when collecting this species, traps should be placed to the rear or between buildings where collections of such containers are likely to be found. Areas protected from the wind are to be preferred and placing the trap about 3 feet above the ground is ideal. When collecting around tire piles, locations near vegetation are preferred over locations out in the open and in full sunlight.

#### Electrical

1. Model 712 requires ca. 0.185 Amps (or 185 mAmps) per hour to operate at 6.0 - 6.3 volts DC. Four D-size flashlight batteries (preferably alkaline) in series will provide power for a minimum of 1 day of operation. A better source of power are sealed gel-cell batteries as they do not leak and do not require the care in charging that nicad batteries do. The trap can be operated at any voltage between 5 and 12 DC; however, voltages

greater than ca. 8 DC cause damage to specimens as the faster spinning motor begins to act as a blender. A 20-22 ohm (5-10 wt) resistor (available from us at no charge) in series with the motor will reduce 12 VDC to approximately 6 volts. You can estimate the maximum run time for a fully-charged and new battery by dividing the amp-hr rating by the consumption (ca. 0.185 amps/hr.); older batteries, even though fully charged will provide substantially less time. A battery capacity of 4 to 10 amp-hrs is a good size for this trap.

2. As DC motors reverse their direction of rotation with voltage polarity changes, the battery leads are coded: the red or copper lead goes to the (+) and the black or tinned lead goes to the (-) terminals on the battery.

#### Air-Actuated Gate System

Gate-System operation (if so equipped) is simple. Take care not to bend the counter balance rods with careless handling or storage. Each time the trap is set up, start and stop the trap several times to make sure the gates open and close without binding. If the thin gates get jammed in the closed position, knock them free with a pencil etc., dropped down through the top of the trap. DO NOT unjamb by applying excessive torque to the counter balance rods.

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#### *Useful References*

Control of Dengue - Vector Topics # 2. Available from Vector Biology and Control Division, Bureau of Tropical Diseases, Center for Disease Control, DHHS, Atlanta, GA 30333.

Fay, Richard W. and William H. Prince. 1970. A modified visual trap for *Aedes aegypti*. Mosquito News 30: 20-23.

Service, M. W. 1977. Mosquito Ecology- Field Sampling Methods. John Wiley and Sons. New York, New York.