

# AERIAL MULE™

## **FERRYING SYSTEM RAPIDLY TRANSPORTS FIRE EQUIPMENT TO STAGING FLOOR DURING A HIGH-RISE FIRE.**

**Fighting a high rise fire is a tall order, especially when it comes to the question of how to get equipment quickly up to a high staging floor. Now at last there's an answer.**

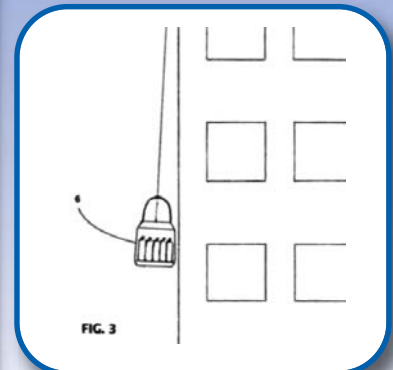
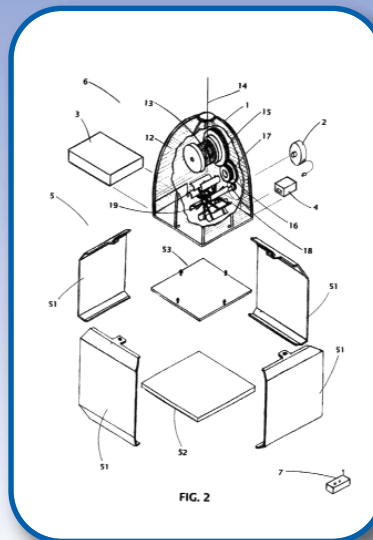
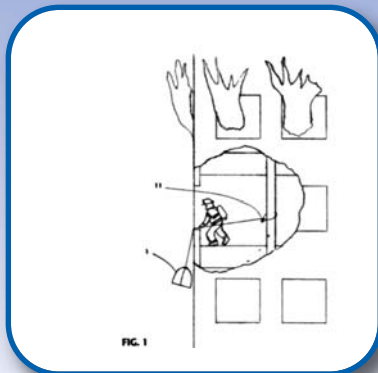
### **OVERVIEW**

With the Aerial Mule equipment delivery system by Life-Pack Technologies, fire equipment is rapidly ferried up the outside of a building to the staging floor in 1/10th the time using 1/10th the number of firefighters required today. As a result, firefighters are not only ready-for-action at a much faster rate than before, but more are available to help fight the fire.

Aerial Mule consists of a Descent Unit, a Battery Pack, a Motor, a Controller, and a Lexan Cargo Container that mate to form a four-sided contoured cargo ferrying system. The system can ferry 300 lbs of equipment to a high story staging floor at 2 ft/sec (~ 10 floors/min), then return slowly and automatically to go to the ground at 1 ft/sec (~ 5 floors/min) for reloading. A 50-story round trip takes approximately 15 minutes.

### **HIGHLIGHTS**

- Rapidly ferry fire equipment (~ 10 floors/min)
- High-capacity cargo load- up to 300 lbs
- Battery Life- 400 stories (ten 40-story round trips)
- Failsafe- slow automatic return if battery runs out



\*Note: Product images displayed are prototypes

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### **PRODUCT DESCRIPTION**

#### **RETRIEVE AND DEPLOY DESCENT UNIT**

The Descent Units should be stored (two per floor or four every other floor) in convenient storage spaces between the ninth floor and the floor below the top. In the event of a high fire, unencumbered firefighters race up to the floor below the fire, wheel the Descent Units to the accessible fire-free side of the building where they anchor the cables around an interior column, break a window, and start the Descent Units descending automatically to the ground.

#### **ASSEMBLE COMPLETE SYSTEM AND LOAD CARGO CONTAINER**

When the Descent Units reach the ground, the rechargeable battery-pack, motor, and four Lexan sides are affixed to form the four-sided contoured cargo ferrying system. The first 300 lbs of equipment is then loaded (25 high-pressure 30-minute cylinders, or equivalent), the sliding doors are closed, and the ferrying system is ready to ascend.

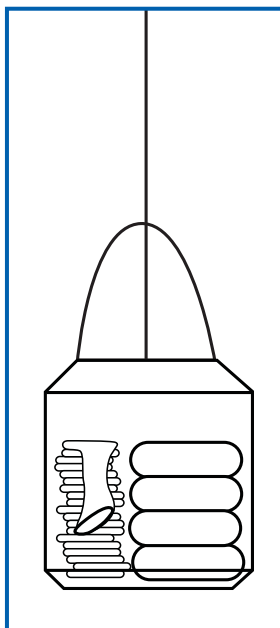
#### **FERRY EQUIPMENT UP TO STAGING FLOOR**

A wireless controller starts the batter-powered motor which causes the cable spool to turn in the reverse direction to rewind the cable and the unit begins to ascend upward toward the anchor floor. The unit is stopped one floor below at the staging floor where the sliding door on the building side is opened and the equipment and a second controller are unloaded. Two controllers are optimally used to control the motor, one from the ground and one from the upper staging floor, with the closer controller always in control. After the unit has been unloaded, the motor is released to allow the unit to return slowly and automatically to the ground.

#### **REPEAT AS NECESSARY**

The rechargeable battery pack provides Aerial Mule with enough power to haul 300 lbs up to about 400 stories (ten 40-story round trips or eight 50-story round trips, etc.). In the event the battery runs out of power during an ascent, the failsafe system simply returns slowly back to the ground where the battery pack is replaced and the ferrying process continued. The contoured shape of the system enables the two assembled units to easily pass each other along the side of the building as one goes up to be unloaded and one comes down to be reloaded in a continuous manner.

### **SPECIFICATIONS**



#### **DESCENT UNIT**

NUMBER OF UNITS	2 per floor or 4 every other floor (floor below the top)
WEIGHT	25 to 55 lbs (depending on floor height)
DESCENT SPEED	approximately 1ft/sec

#### **CARGO CONTAINER**

DIMENSIONS	3 feet square
MATERIAL	Lexan
LOAD CAPACITY	300 lbs
MOTOR TYPE	DC
MOTOR CONTROL	DUAL Wireless

#### **BATTERY PACK**

TYPE	Rechargeable Lithium Ion
BATTERY LIFE	~400 ascent floors with 300 lbs