



Estes Industries  
The World Leader in  
Model Rocketry  
1295 H Street  
Penrose, CO 81240 USA

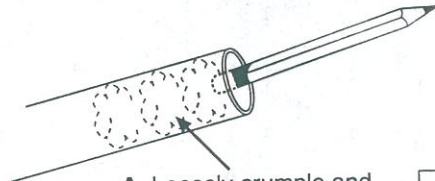
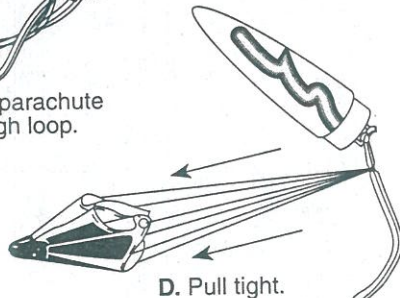
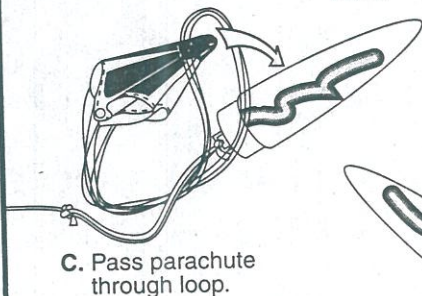
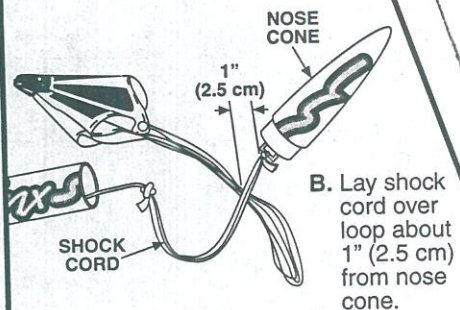
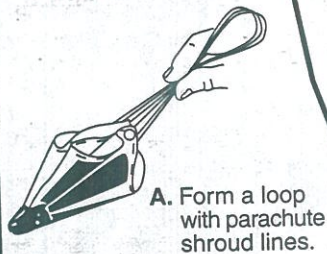
EST 1809  
(9-98) 36399



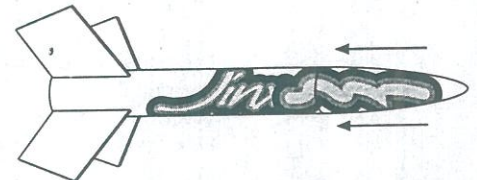
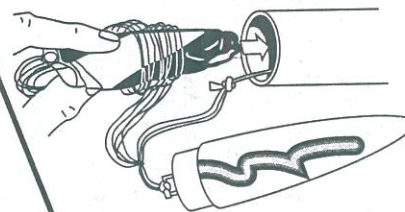
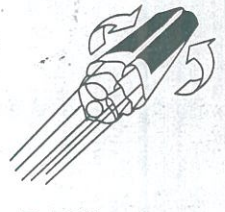
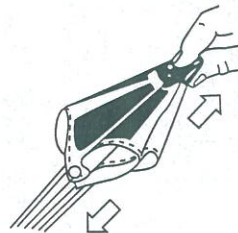
## READY TO FLY FLYING MODEL ROCKET INSTRUCTIONS

### 2. PREPARE PARACHUTE FOR FLIGHT

#### 1. ROCKET PARACHUTE ATTACHMENT



**IMPORTANT:**  
Wadding must be in place and slide freely for rocket to work properly!



### 3. PREPARE ENGINE FOR FLIGHT

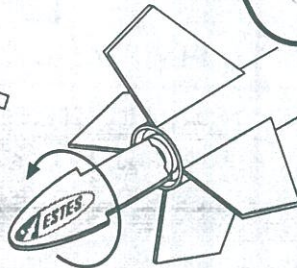
#### WARNING:

BEFORE PROCEEDING, READ INSTRUCTIONS AND NAR SAFETY CODE INCLUDED WITH ENGINES. PREPARE YOUR ENGINE ONLY WHEN YOU ARE OUTSIDE AT THE LAUNCH SITE PREPARING TO LAUNCH!

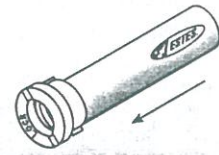
If you do not use your prepared engine, remove the igniter before storing your engine.



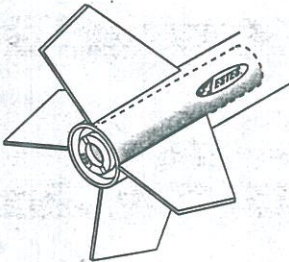
A. Separate Igniter and igniter plug.



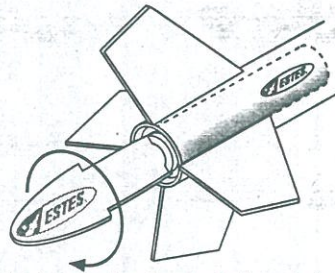
B. Use the engine key to twist off retainer ring at rear of rocket.



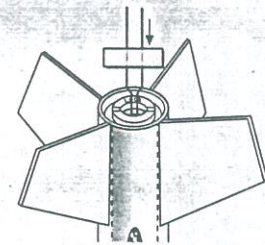
C. Slide the nozzle end of engine into retainer ring as shown.



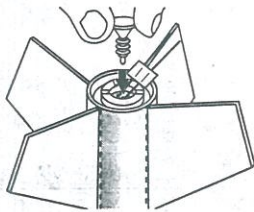
D. Slide the engine all the way into rear of rocket.



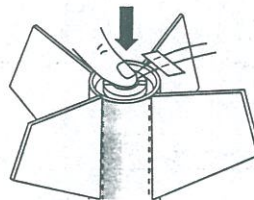
E. Use engine key to twist retainer ring into locked position. (Do not twist too hard.)



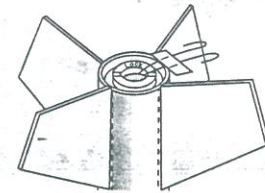
F. Hold rocket upside down, drop in igniter. Igniter must touch propellant.



G. Insert igniter plug.



H. Firmly push all the way in.



I. Bend igniter wires back as shown.

### LAUNCH SUPPLIES

To launch your rocket, you will need the following:

- Launch Pad (Estes Porta-Pad® II)
- Launch Controller (Estes Electron Beam®)
- Recommended Estes Engines: 1/2A3-4T, A3-4T, A10-3T.

Use the 1/2A3-2T for your first flight to become familiar with your rocket's flight pattern.

- Recovery Wadding (EST 302274)
- Igniters and Igniter Plugs (included with Estes engines)

Use only Estes products to launch this rocket.

#### PROJECTED ALTITUDE

Engine	Feet	Meters
1/2A3-2T	72	22
A3-4T	203	62
A10-3T	209	64

### TIPS FOR FLYING YOUR ROCKET

- Choose a large field away from power lines, buildings, tall trees, and low flying aircraft. Try to find a field at least 250 feet (76 meters) square. The larger the launch area, the better your chance of recovering your rocket.
- Launch area must be free of dry weeds and brown grass.
- Launch only during calm weather with little or no wind (wind speed less than 20 mph - 30 kph) and good visibility.
- Don't leave parachute packed more than a minute or so before launch during cold weather (colder than 40° Fahrenheit [4° Celsius]). Parachute may be dusted with talcum or baby powder to avoid sticking.
- Always follow the National Association of Rocketry (NAR) MODEL ROCKETRY SAFETY CODE while participating in any model rocketry activities. The safety code is enclosed with this kit.