



ESTES INDUSTRIES  
1295 H Street  
Penrose, CO 81240

**STAR  
WARS™  
EPISODE I**

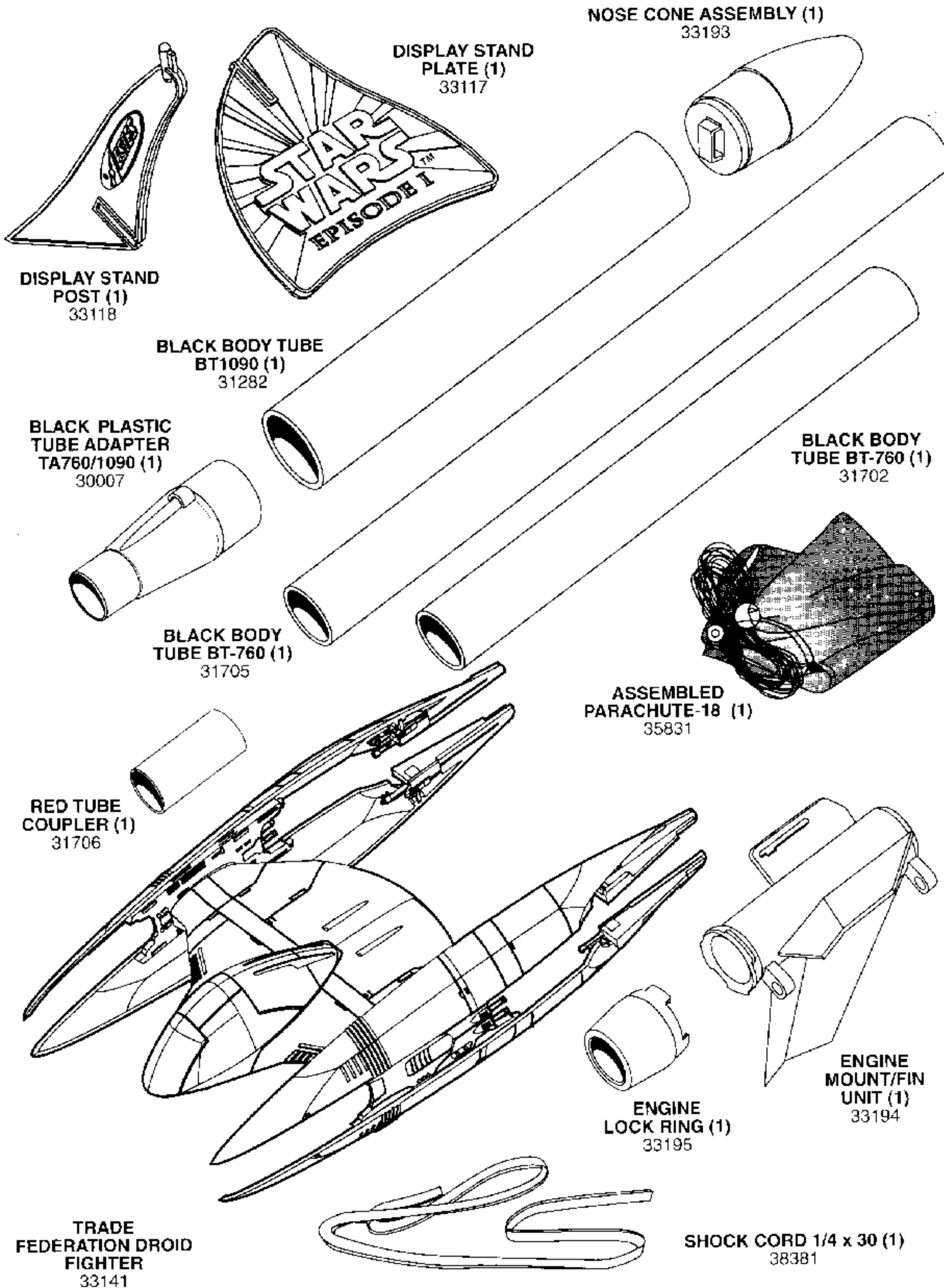
(12-98) 84109 EST 1837

# TRADE FEDERATION DROID FIGHTER™

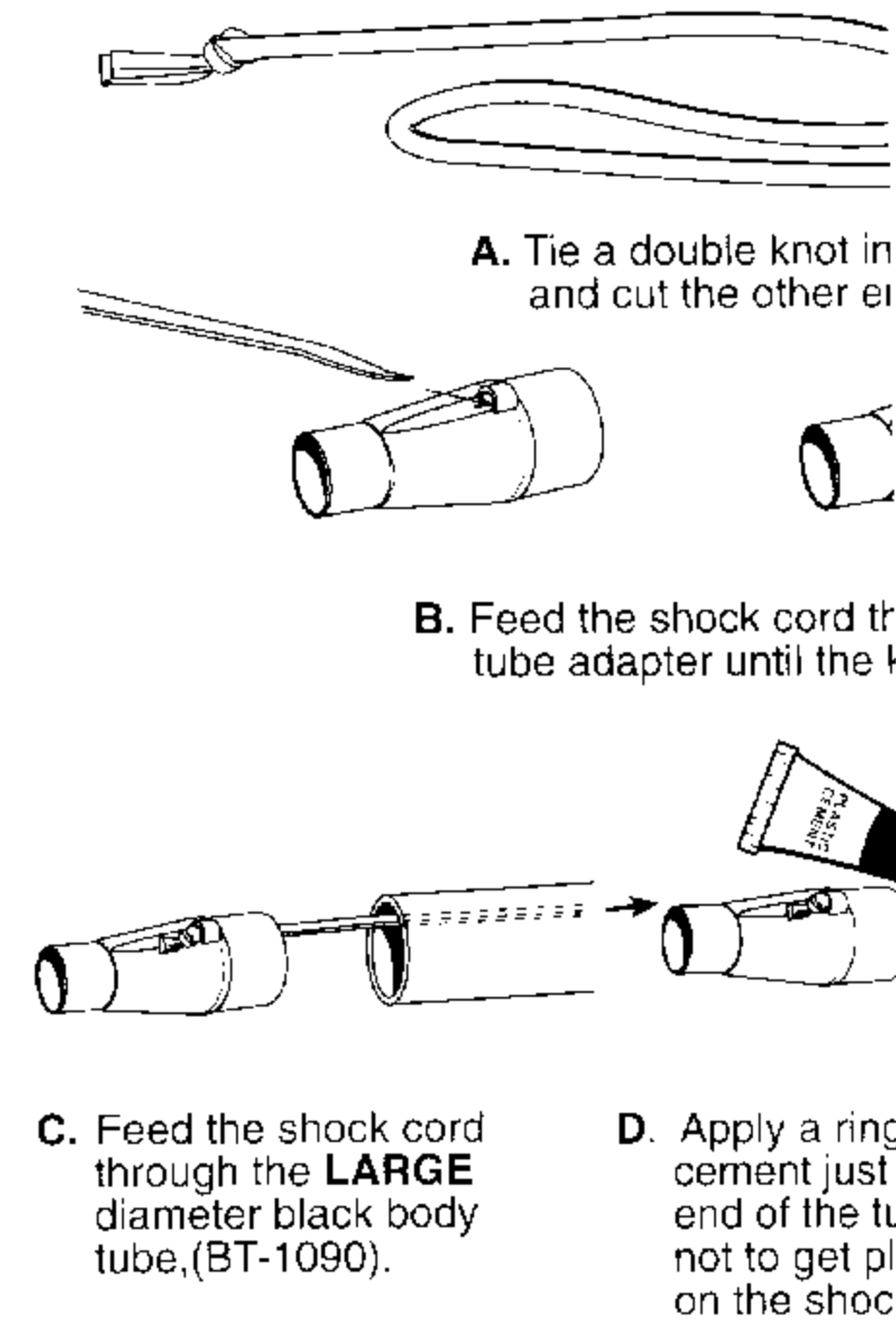
## Flying Model Rocket Kit Instructions

**MATERIALS REQUIRED:** TUBE-TYPE PLASTIC CEMENT, WHITE OR YELLOW GLUE, HOBBY KNIFE, SANDPAPER, PENCIL  
BE SURE TO READ ALL INSTRUCTIONS, TEST FIT ALL PARTS, AND SAND AS NECESSARY BEFORE GLUING

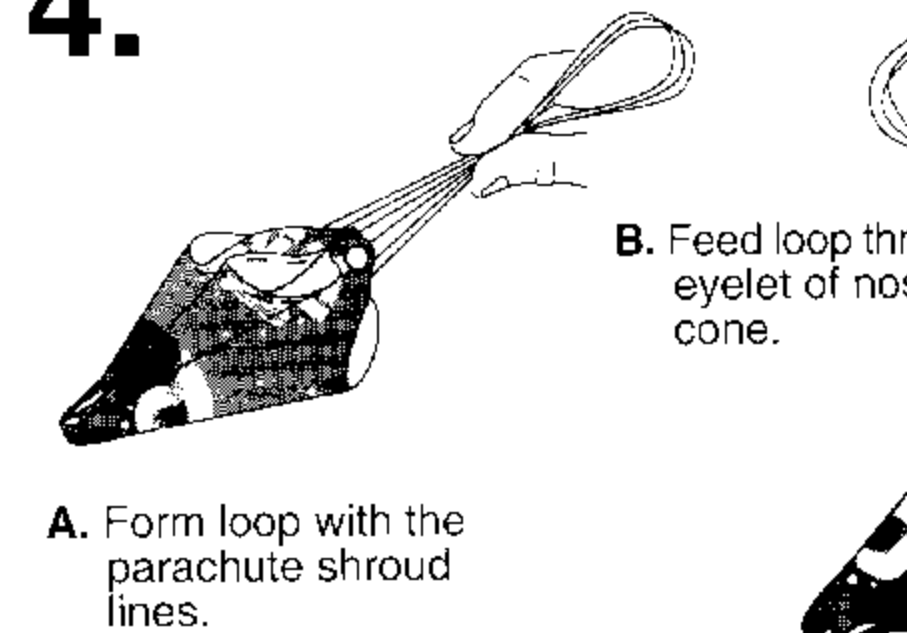
### PARTS LAYOUT



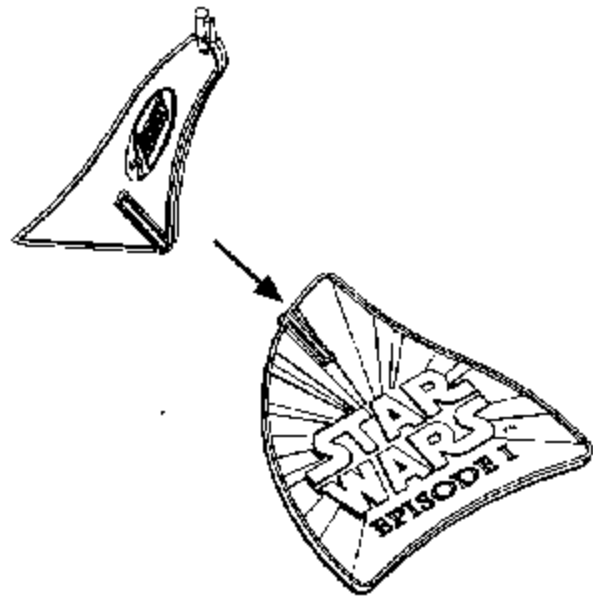
### 2. BUILDING THE FLIGHT



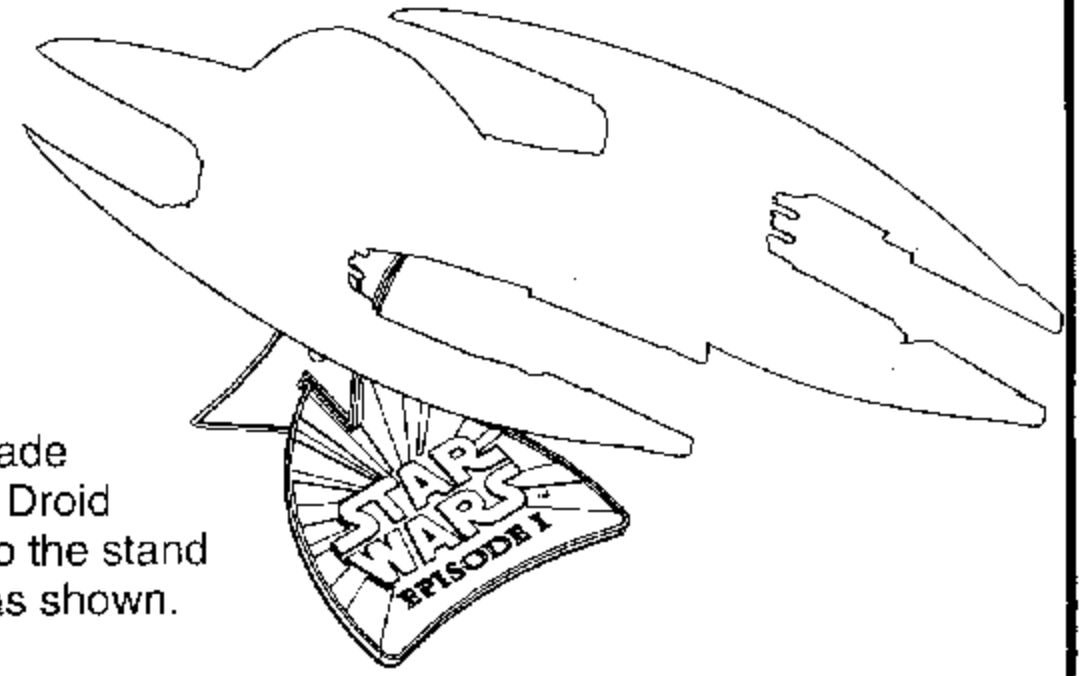
### 4.



# 1. THE DISPLAY STAND



A. Slide the display stand plate and post together as shown.



B. Set your Trade Federation Droid Fighter onto the stand to display as shown.

## PROBE

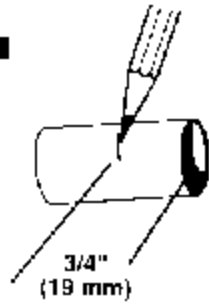
one end of the shock cord, and at an angle as shown.

ough the cavity in the plastic not fits into the cavity.

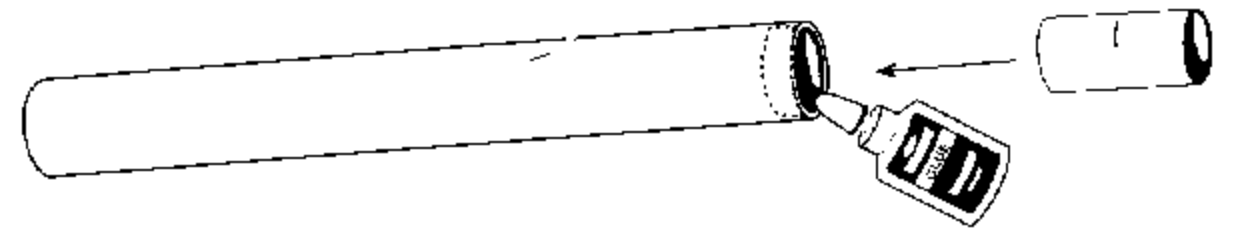
of plastic inside the rear eyelet. Be careful of plastic cement and shock cord!

E. Slide the body tube down onto the shoulder of the adapter until it rests evenly all the way around.

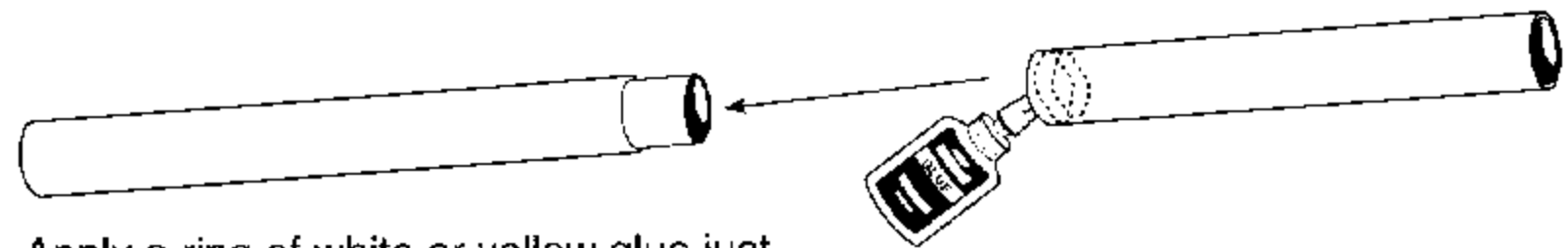
## 3.



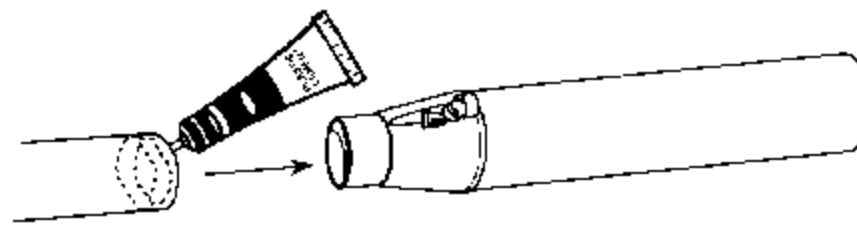
A. Mark the halfway point on the red tube coupler.



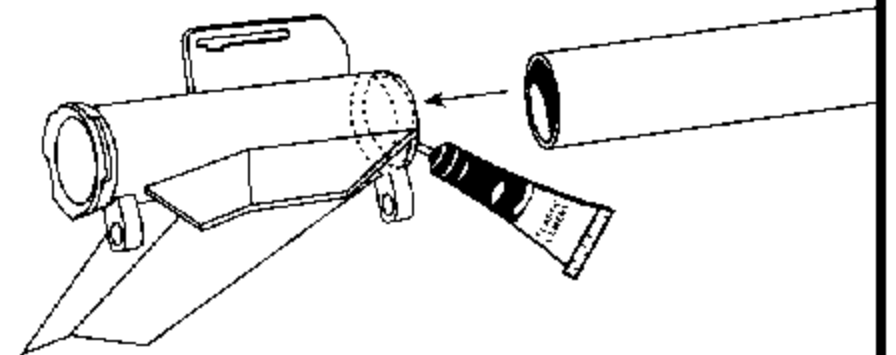
B. Test fit the red tube coupler into the front end of the longer small diameter tube, remove, apply a ring of white or yellow glue just inside the tube, and reinsert coupler up to mark. LET DRY.



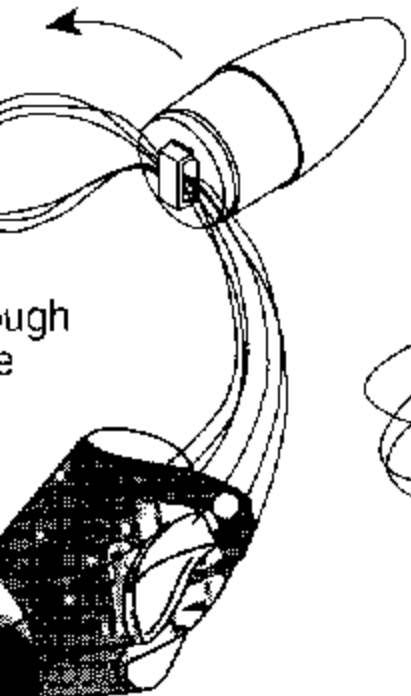
C. Apply a ring of white or yellow glue just inside one end of the other small diameter tube, and slide tube down over coupler until tubes are perfectly joined. Let dry.



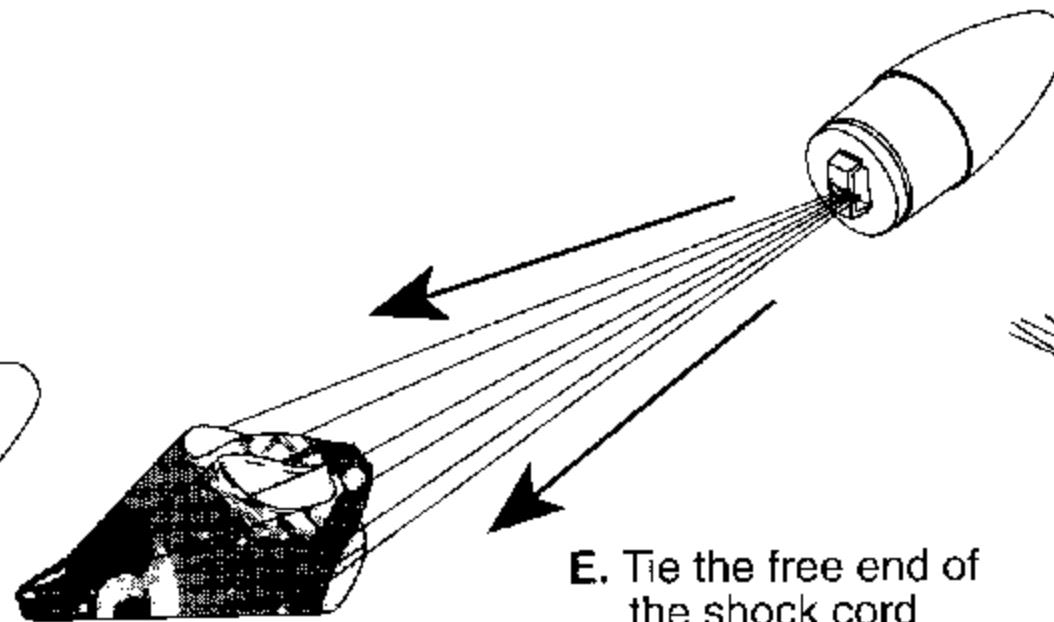
D. Apply a ring of plastic cement just inside the end of the shorter BT-760 tube assembly, and slide the assembly onto the plastic tube adapter. Let dry.



E. Apply a band of plastic cement just inside the front end of the engine mount/fin unit. Slide the small open end of the tube assembly into the engine mount/fin unit until it stops against the interior wall. Check that the tube projects straight out, and let dry.

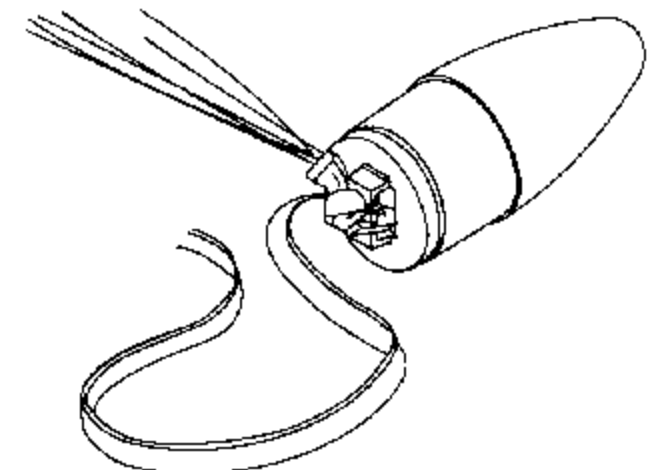


C. Pass parachute through loop.



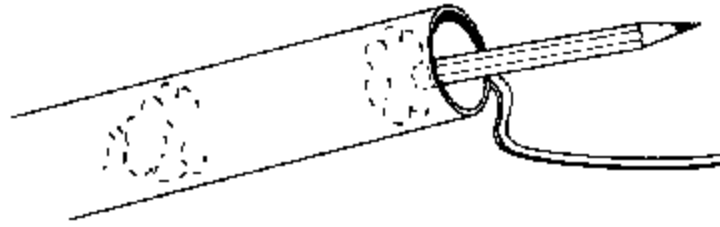
D. Pull tight.

E. Tie the free end of the shock cord onto the nose cone eyelet with a double knot.

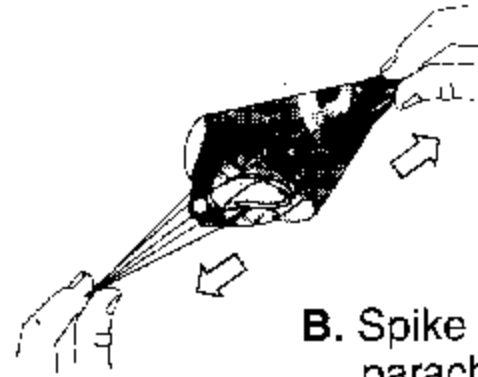


## 5. FLIGHT PREPARATION

A. Crumple and insert two squares of recovery wadding into flight probe body.



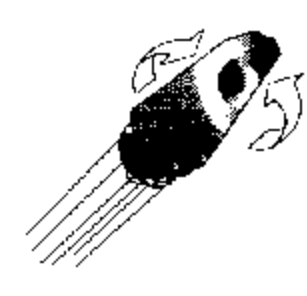
B. Spike parachute.



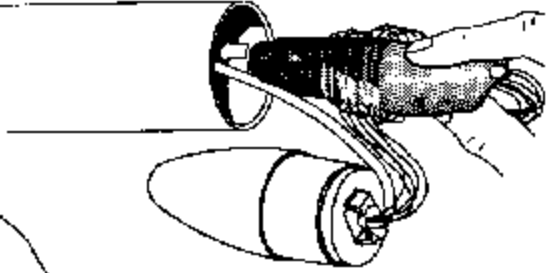
C. Fold parachute twice.



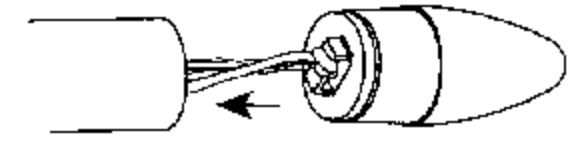
D. Roll parachute.



E. Wrap lines loosely around chute. Insert parachute into probe.



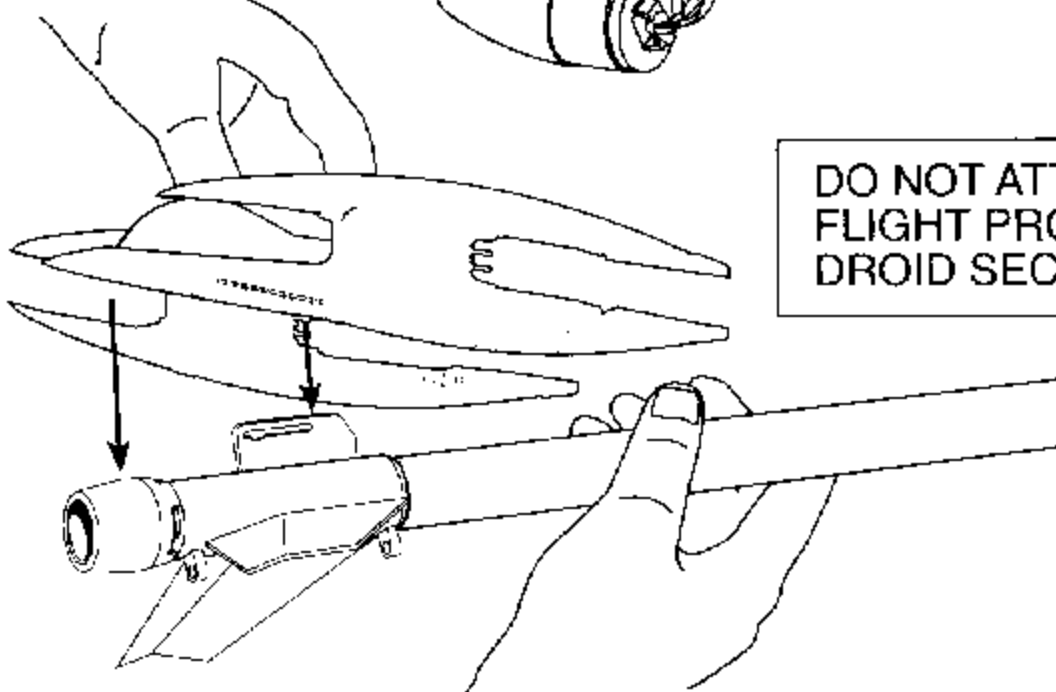
F. Slide shock cord & nose cone into place.



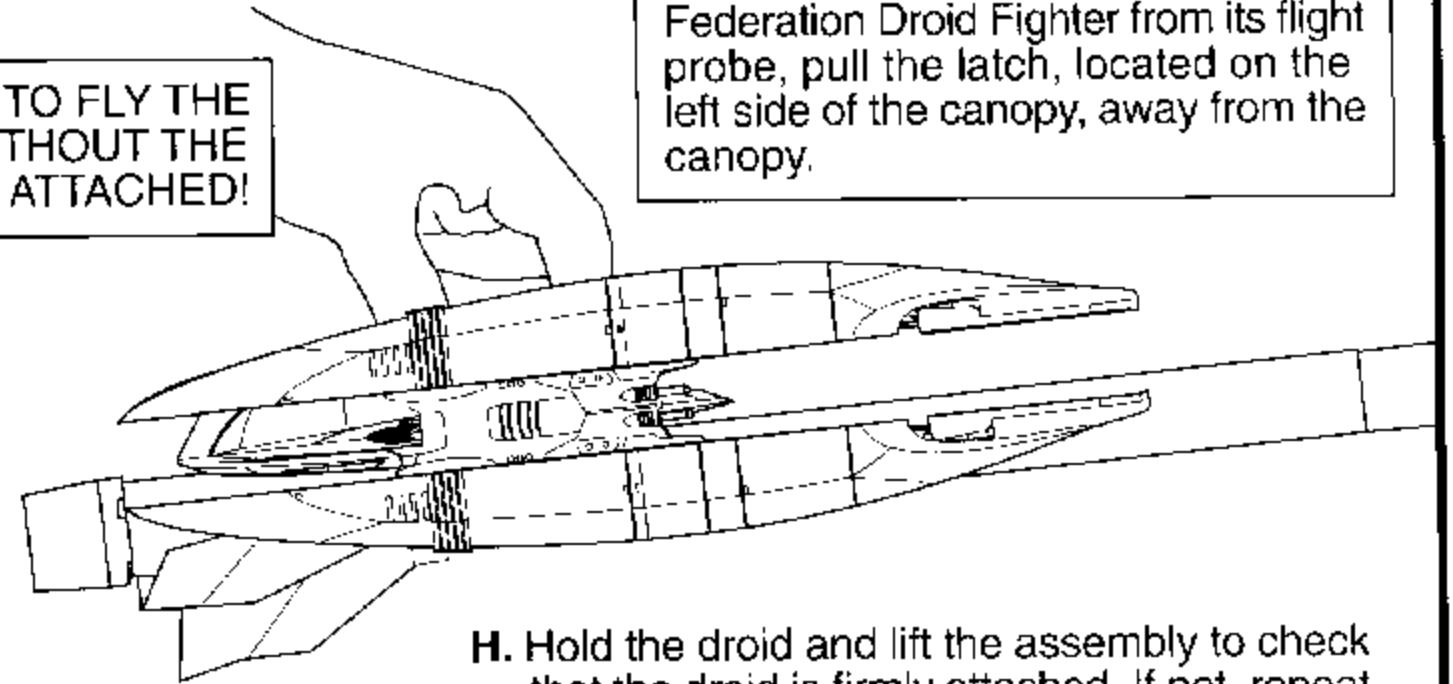
**DO NOT ATTEMPT TO FLY THE FLIGHT PROBE WITHOUT THE DROID SECURELY ATTACHED!**

**NOTE:** To release the Trade Federation Droid Fighter from its flight probe, pull the latch, located on the left side of the canopy, away from the canopy.

G. Align the slot at the bottom of your Trade Federation Droid Fighter with the droid mounting lug. Push the droid onto the mounting lug until it snaps in place.



H. Hold the droid and lift the assembly to check that the droid is firmly attached. If not, repeat step 5G until the droid is secure.



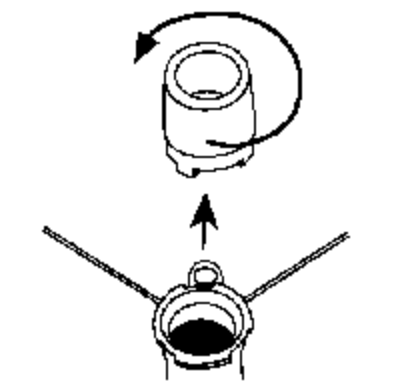
## 6. ENGINE PREPARATION

### WARNING FLAMMABLE:

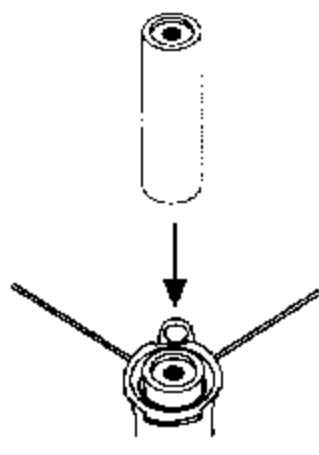
BEFORE PROCEEDING, READ INSTRUCTIONS AND NAR SAFETY CODE INCLUDED WITH ENGINES.

PREPARE YOUR ENGINE **ONLY** WHEN YOU ARE **OUTSIDE** AT THE LAUNCH SITE PREPARING TO LAUNCH!

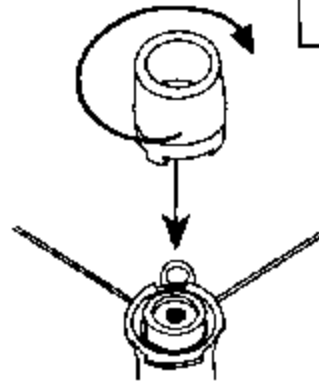
If you do not use your prepared engine, remove the igniter before storing your engine.



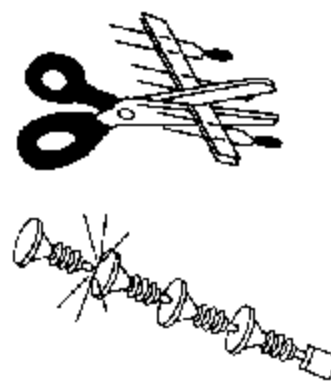
A. Twist engine lock ring off of engine mount/fin assembly



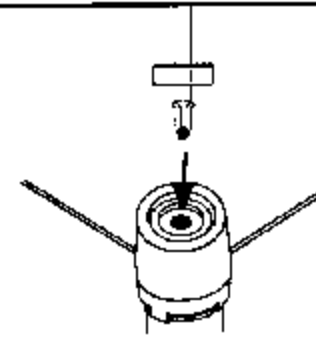
B. Slide engine into engine mount.



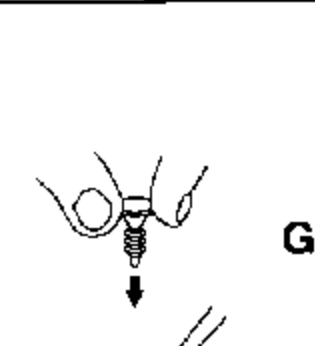
C. Twist engine lock ring into locked position.



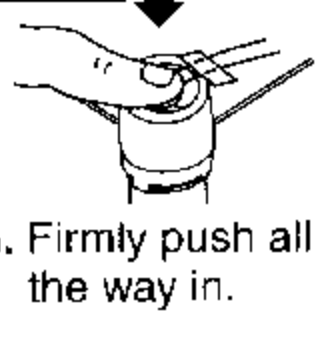
D. Separate igniter and igniter plug.



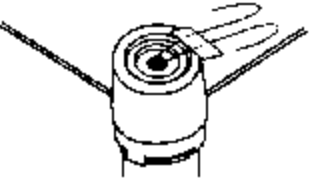
E. Hold body tube upside down and drop in igniter. Igniter must touch propellant.



F. Insert igniter plug



G. Firmly push all the way in.



H. Bend igniter wires back.

## LAUNCH SUPPLIES

To launch your Trade Federation Droid Fighter, you will need the following:

- Launch Pad (Estes Porta-Pad® II).
- Launch Controller (Estes Electron Beam®, R2-D2 or Laser™ Launcher)
- Recommended Estes Engines: C6-3 (first flight), or C5-3
- Recovery Wadding (EST 302274)
- Igniters and Igniter Plugs (included with Estes engines)

Use only Estes products to launch this rocket.

## 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 and good visibility.
- Don't leave parachute packed more than a minute or so before launching 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.

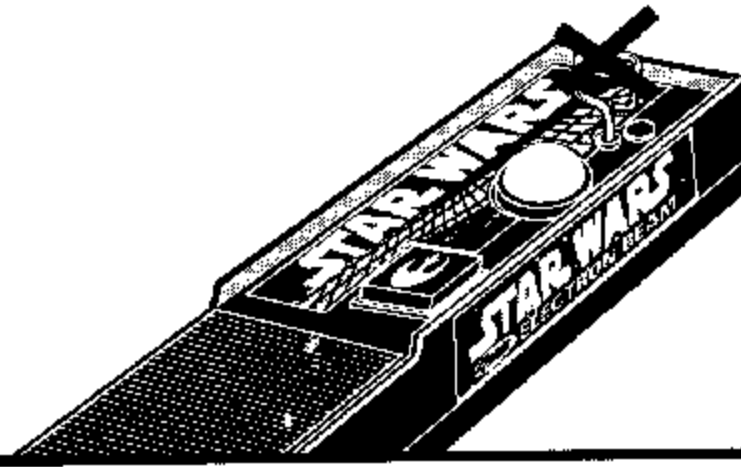
### PROJECTED ALTITUDE

Engine	Feet	Meters
C6-3	188	57
C5-3	202	62

## COUNTDOWN AND LAUNCH

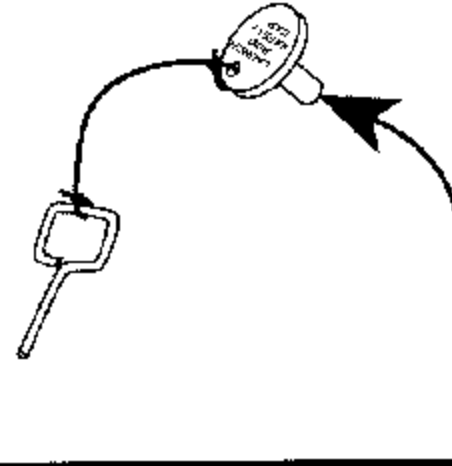
10...

Safety key must not be in launch controller. The safety cap should be on the launch rod.



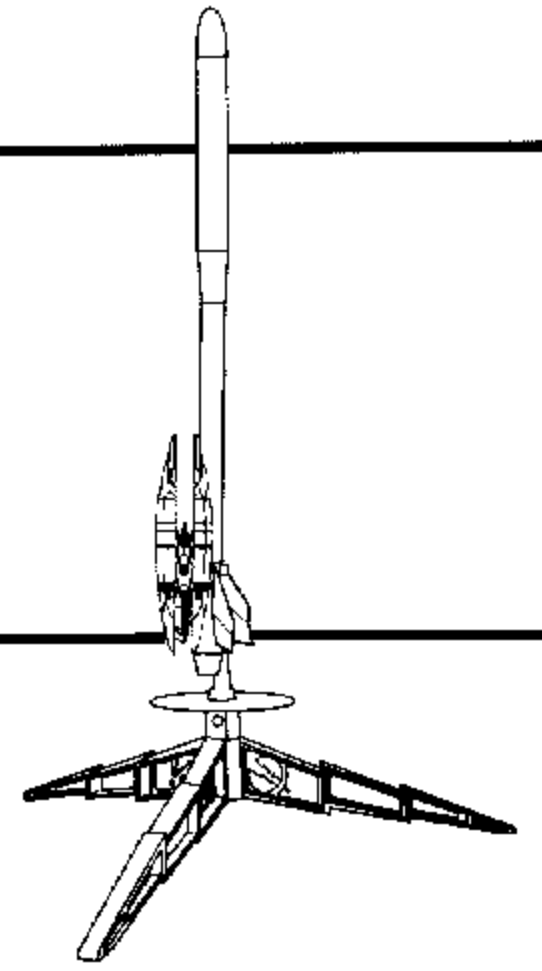
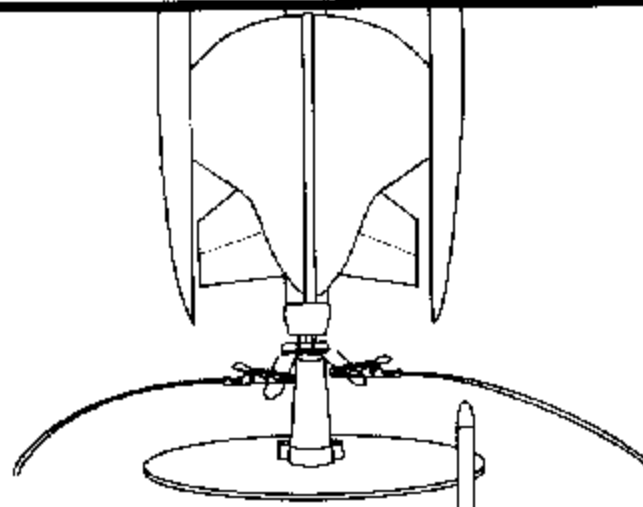
9...

Remove safety cap from launch rod, slide launch rod through lugs in body. Make sure rocket slides freely and micro-clips are clean for good electrical contact.



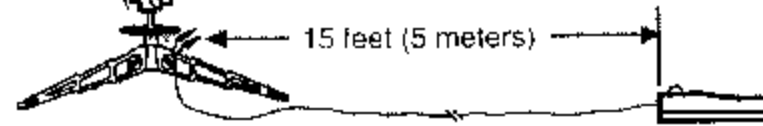
8...

Attach micro-clips to the igniter wires. Arrange the micro-clips so they do not touch each other or the metal blast deflector. Attach micro-clips as close to protective tape on igniter as possible.



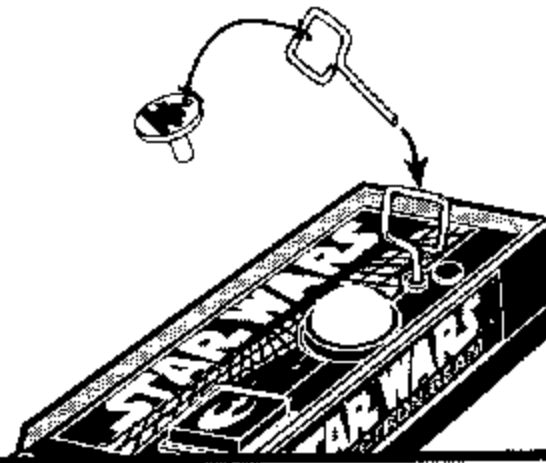
7...

Move everyone back from your rocket as far as launch wire will permit at least 15 feet (5 meters).



6...

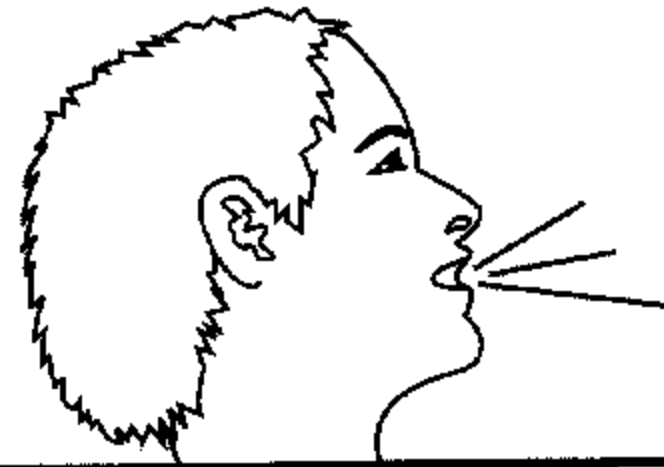
Insert safety key to arm the launch controller.



5...

Start audible countdown.

4...3...2...1.....



## LAUNCH!

Push and hold button until engine ignites.

**For safety, immediately remove safety key from launch controller. Replace safety cap on launch rod.**

## MISFIRES

When an ignition failure occurs, **remove the safety key** from the launch control system **and wait one minute before approaching the rocket.** Remove the expended igniter from the engine and install a new one. Be certain the coated tip is in direct contact with the engine propellant. Broken or chipped coating will not affect the performance of the igniter. Reinstall the igniter plug as illustrated previously. Repeat the countdown and launch procedure.