PRINTED IN CHINA

Alpha III®

EX® SERIES

www.estesrockets.com
ESTES INDUSTRIES
1295 H Street Penrose, CO 81240

FLYING MODEL ROCKET KIT INSTRUCTIONS
Keep For Future Reference

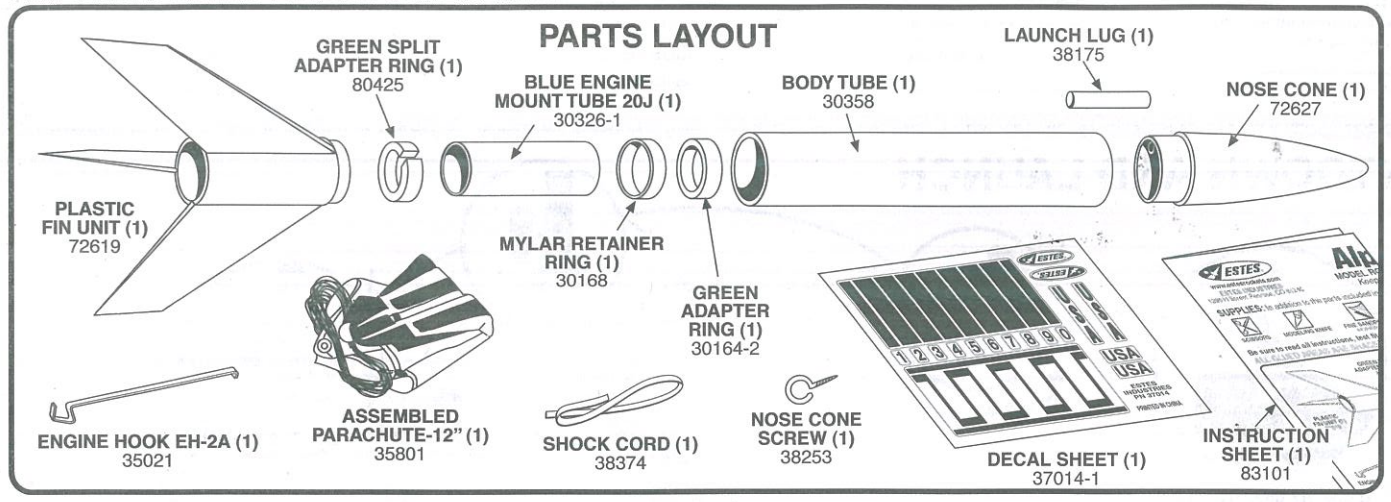
For Estes® Items
1256/1406/1751

SUPPLIES: In addition to the parts included in the kit you will need:

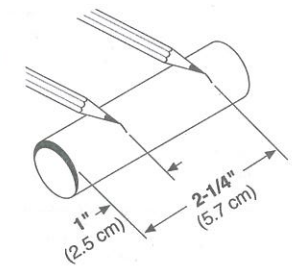
SCISSORS | MODELING KNIFE | FINE SANDPAPER (#400-600 grit) | CARPENTER'S GLUE | PENCIL | RULER

Be sure to read all instructions, test fit all parts, and sand if necessary before gluing.
ALL GLUED AREAS ARE SHADED IN GRAY

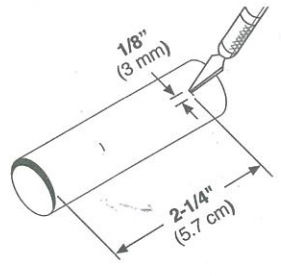
PARTS LAYOUT



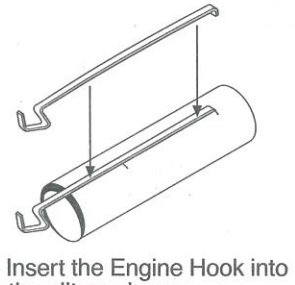
1.



A. Mark the Blue Engine Mount Tube at 1" (2.5 cm) and at 2-1/4" (5.7 cm).

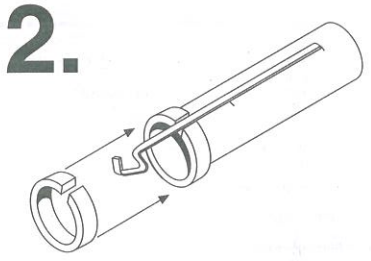


B. Use a Hobby Knife to make a 1/8" (3 mm) wide slit at the 2-1/4" (5.7 cm) mark **ONLY!**

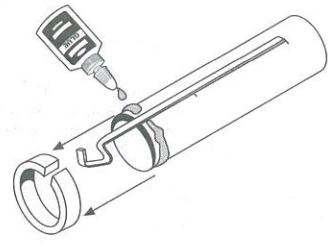


C. Insert the Engine Hook into the slit as shown.

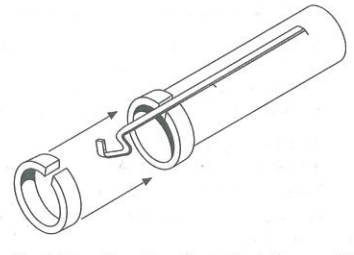
2.



A. Test fit the Split Adapter Ring onto the rear end of the tube so the Engine Hook fits the opening. Sand as necessary. Do not glue.

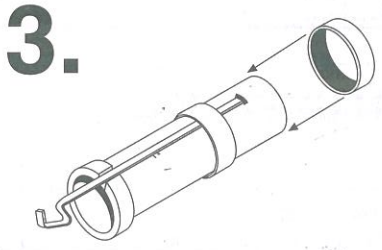


B. Remove ring, apply glue to the rear end of the tube.

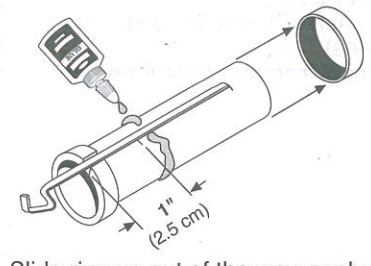


C. Slide ring back onto tube until ends are even and **CLAMP TIGHTLY** until glue dries.□

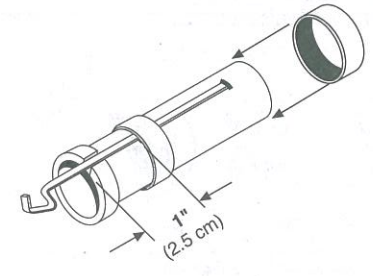
3.



A. Test fit the Mylar Retainer Ring over the Engine Tube and Engine Hook. Do not glue.

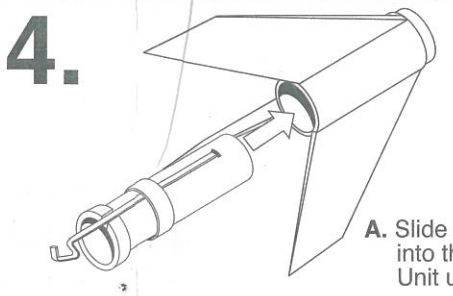


B. Slide ring up out of the way, apply glue around the tube in front of the 1" (2.5 cm) mark.

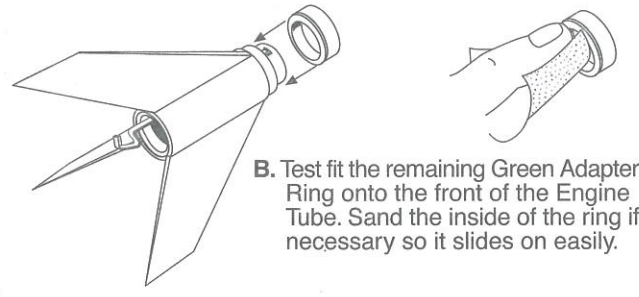


C. Slide ring down until it is even with the mark. Let dry **COMPLETELY.**

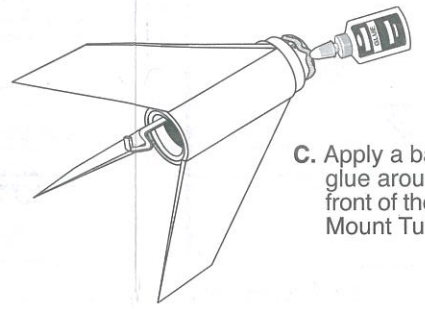
4.



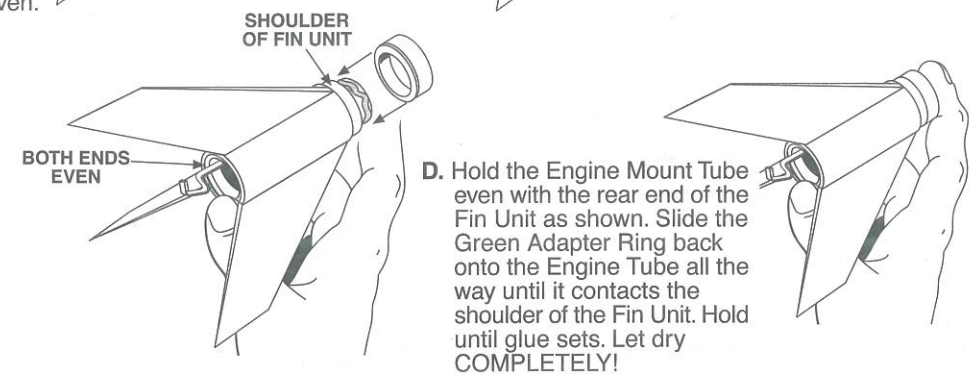
A. Slide the Engine Mount Tube into the rear of the Plastic Fin Unit until rear edges are even.



B. Test fit the remaining Green Adapter Ring onto the front of the Engine Tube. Sand the inside of the ring if necessary so it slides on easily.

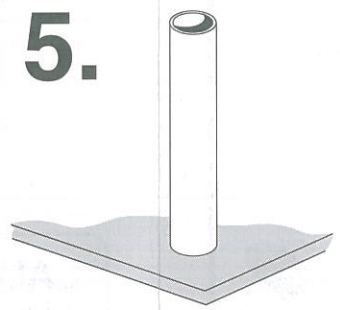


C. Apply a band of glue around the front of the Engine Mount Tube.

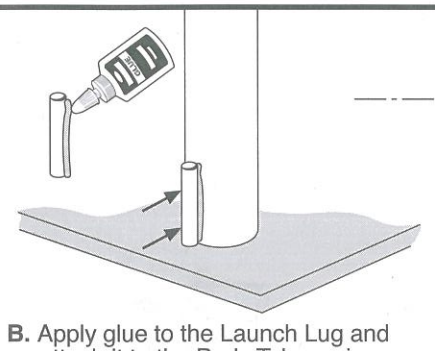


D. Hold the Engine Mount Tube even with the rear end of the Fin Unit as shown. Slide the Green Adapter Ring back onto the Engine Tube all the way until it contacts the shoulder of the Fin Unit. Hold until glue sets. Let dry COMPLETELY!

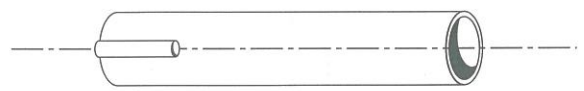
5.



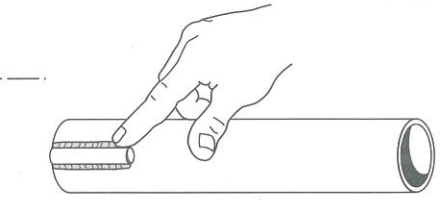
A. Stand the Body Tube on end on a flat surface.



B. Apply glue to the Launch Lug and attach it to the Body Tube, using the flat surface to align the ends.

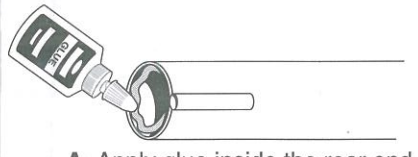


C. Make sure the Launch Lug is parallel with the Body Tube. Let glue set.

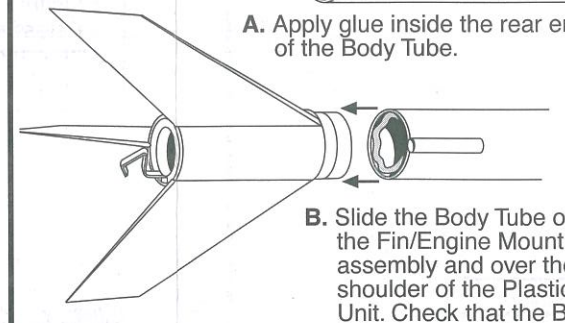


D. Apply extra glue and smooth with finger as shown. Let dry.

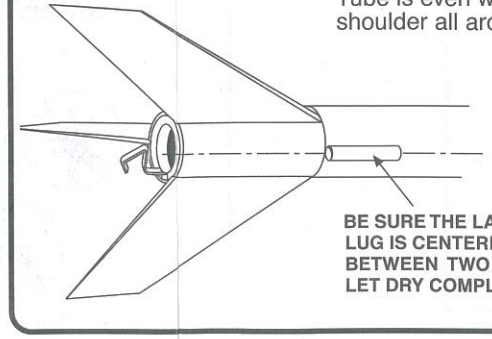
6.



A. Apply glue inside the rear end of the Body Tube.



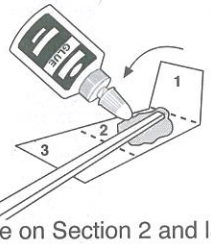
B. Slide the Body Tube onto the Fin/Engine Mount assembly and over the shoulder of the Plastic Fin Unit. Check that the Body Tube is even with the shoulder all around.



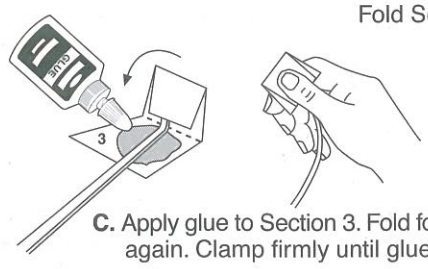
BE SURE THE LAUNCH LUG IS CENTERED BETWEEN TWO FINS! LET DRY COMPLETELY.

7.

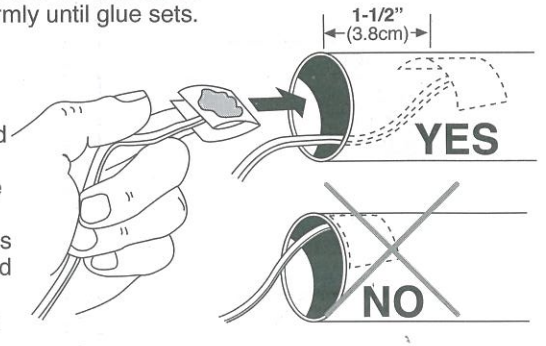
A. Cut out Shock Cord Mount along solid lines.



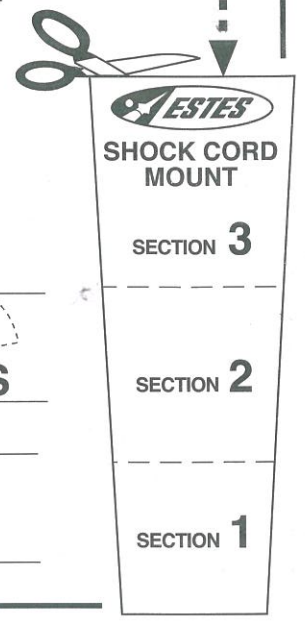
B. Spread glue on Section 2 and lay Shock Cord into glue at a slight angle as shown. Fold Section 1 over.



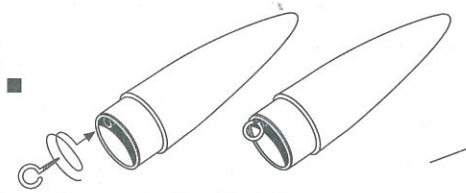
C. Apply glue to Section 3. Fold forward again. Clamp firmly until glue sets.



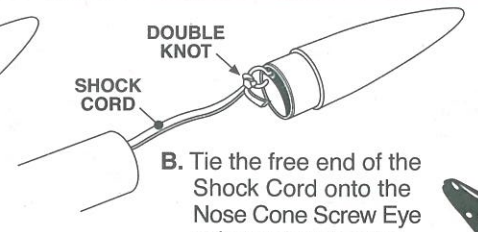
D. Glue the Shock Cord Mount about 1-1/2" (3.8cm) down inside the front end of the Body Tube, and press firmly into place. Hold until glue sets. Let glue dry completely.



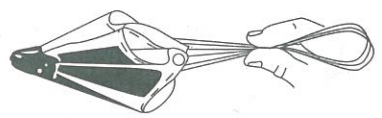
8.



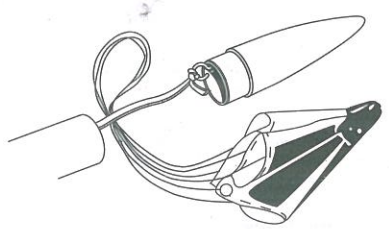
A. Thread the Nose Cone Screw Eye into the hole in the nose cone.



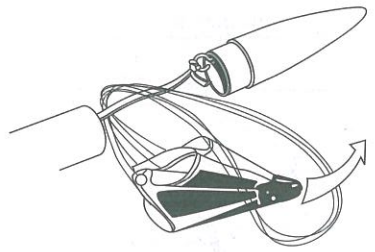
B. Tie the free end of the Shock Cord onto the Nose Cone Screw Eye using a double knot.



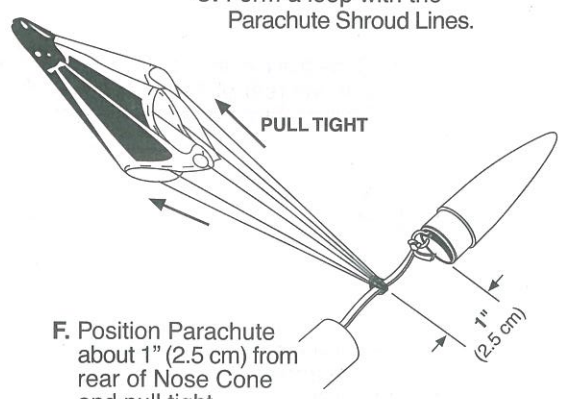
C. Form a loop with the Parachute Shroud Lines.



D. Lay Shock Cord over loop.



E. Pass Parachute through loop.

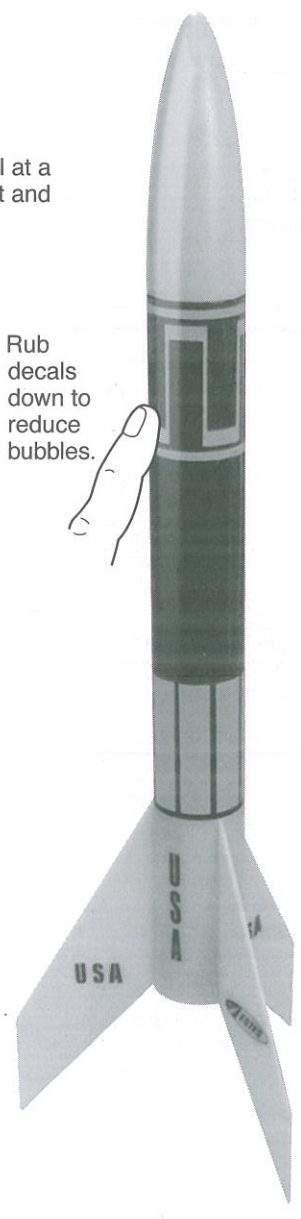


F. Position Parachute about 1" (2.5 cm) from rear of Nose Cone and pull tight.

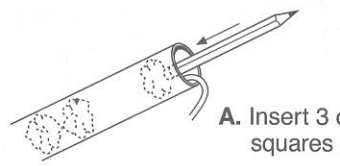
9. DECAL APPLICATION

A. Carefully peel one decal at a time from backing sheet and position as shown.

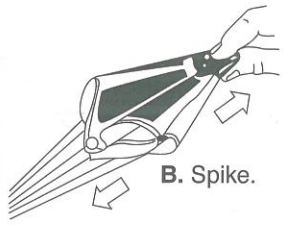
B. Rub decals down to reduce bubbles.



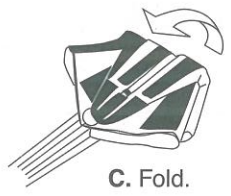
10. PREPARING THE RECOVERY SYSTEM



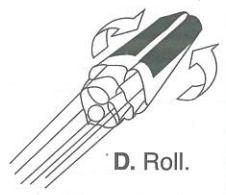
A. Insert 3 or 4 loosely crumpled squares of Recovery Wadding.



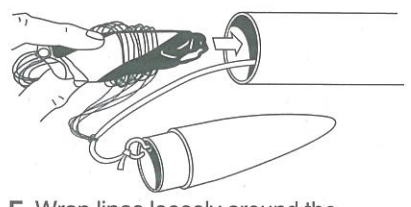
B. Spike.



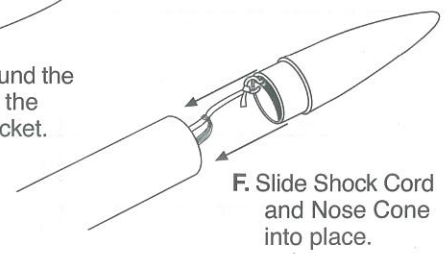
C. Fold.



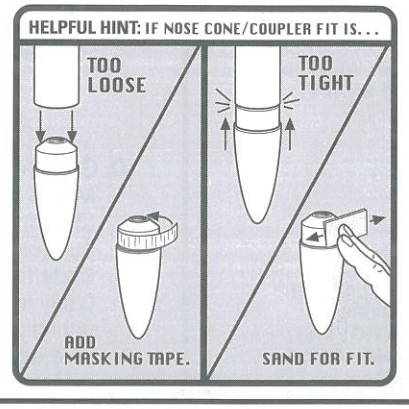
D. Roll.



E. Wrap lines loosely around the Parachute and insert the Parachute into the rocket.



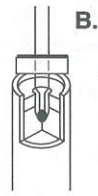
F. Slide Shock Cord and Nose Cone into place.



11. ENGINE PREPARATION

WARNING: FLAMMABLE
Before proceeding read instructions & 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 Plug and Igniter.

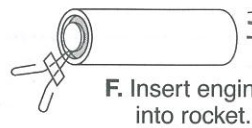


B. Hold engine upright, drop in Igniter. Igniter must touch propellant.

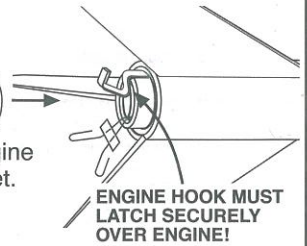
C. Insert Igniter Plug.

D. Firmly push all the way in.

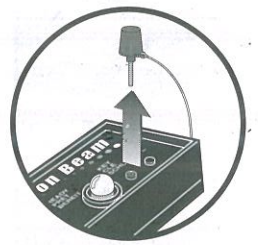
E. Fold back and bend tips as shown.



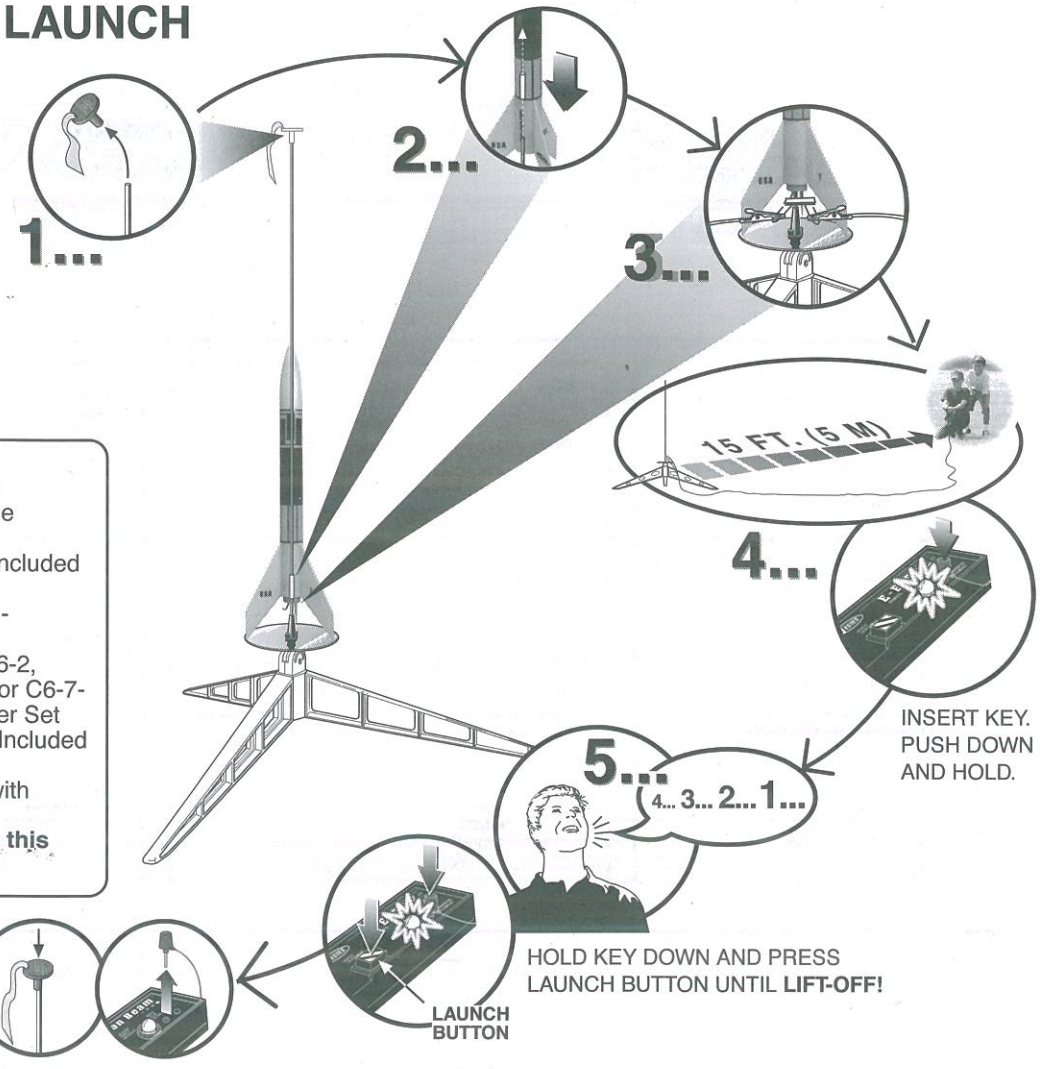
F. Insert engine into rocket.



COUNTDOWN AND LAUNCH



KEY ALWAYS OUT UNTIL FINAL COUNTDOWN!



LAUNCH SUPPLIES

To launch your rocket, you will need the following:

- Launch Pad (Estes Porta-Pad® II) - Included with #1406 Starter Set
- Launch Controller (Electron Beam®) - Included with #1406 Starter Set
- Recommended Estes Engines: 1/2A6-2, A8-3, A8-5, B4-4, B6-4, B6-6, C6-5, or C6-7-2 Engines Included with #1406 Starter Set
- Recovery Wadding (EST 302274)) - Included with #1406 Starter Set
- Igniters and Igniter Plugs (included with Estes® engines)

Use only Estes® products to launch this rocket.

PRECAUTIONS

NAR Safety Code

NO DRY GRASS OR WEEDS

FLYING YOUR ROCKET

Choose a large field (500 ft. [152 m] square) free of dry weeds and brown grass. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great. Launch only with little or no wind and good visibility.
Always follow the National Association of Rocketry (NAR) SAFETY CODE.

MISFIRES

TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET! Take the plug and igniter out of the engine. If the igniter has burned, it worked but did not ignite the engine because it was not touching the propellant inside the engine. Put a new igniter all the way inside the engine without bending it. Push the plug in place. Repeat the steps under Countdown and Launch.

PN 83101 (11-01)