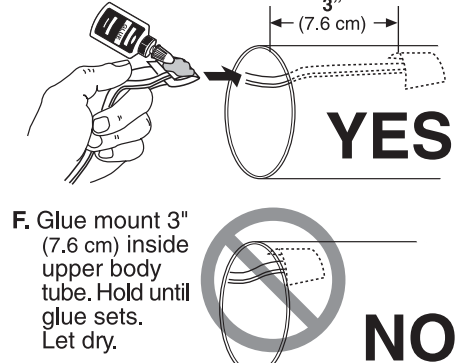
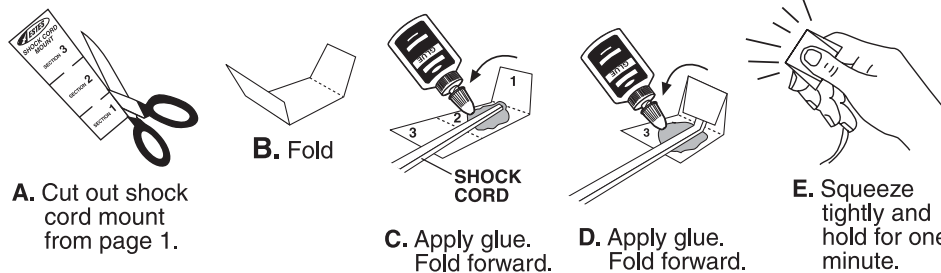
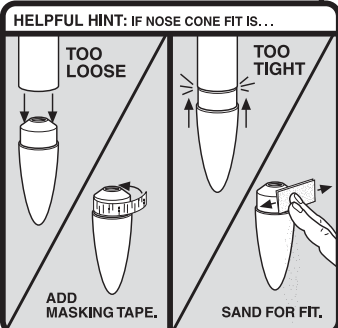
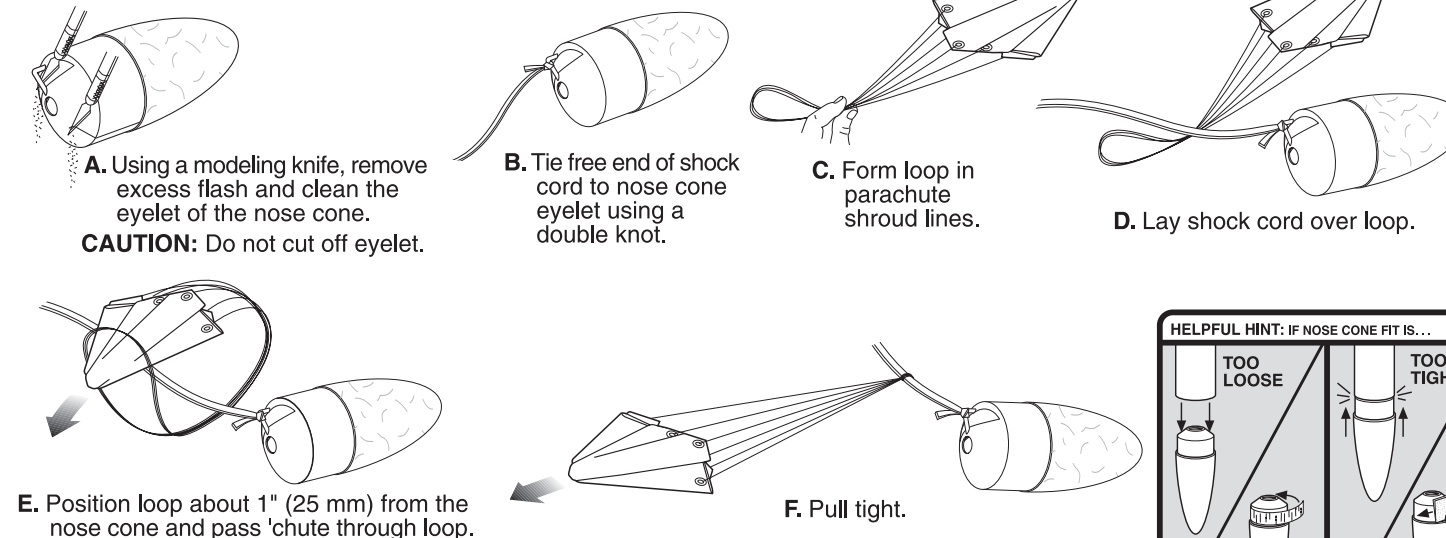


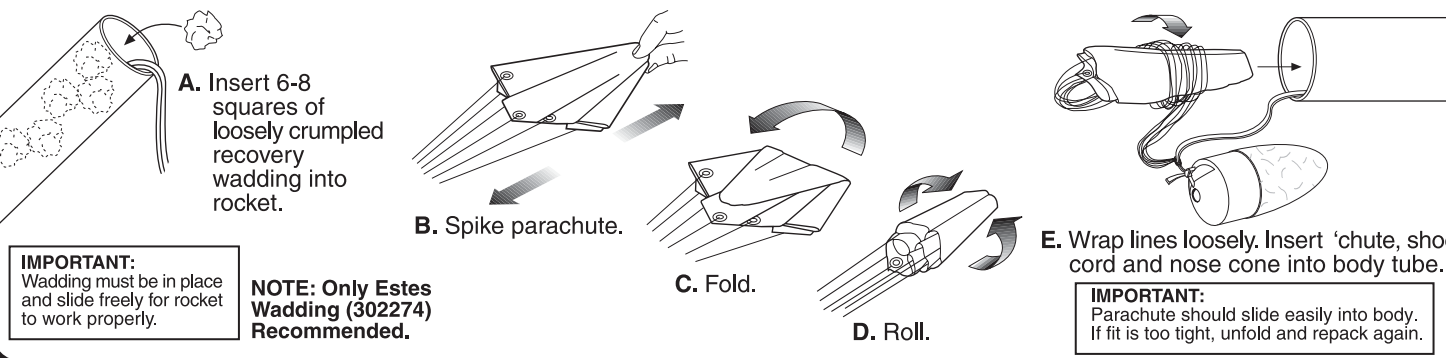
8. INSTALL SHOCK CORD MOUNT



9. ATTACH PARACHUTE AND SHOCK CORD

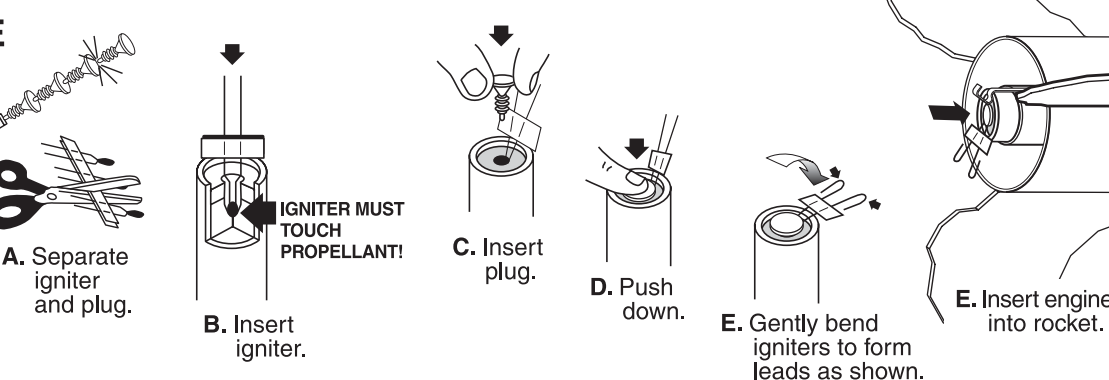


10. PREPARE PARACHUTE FOR FLIGHT

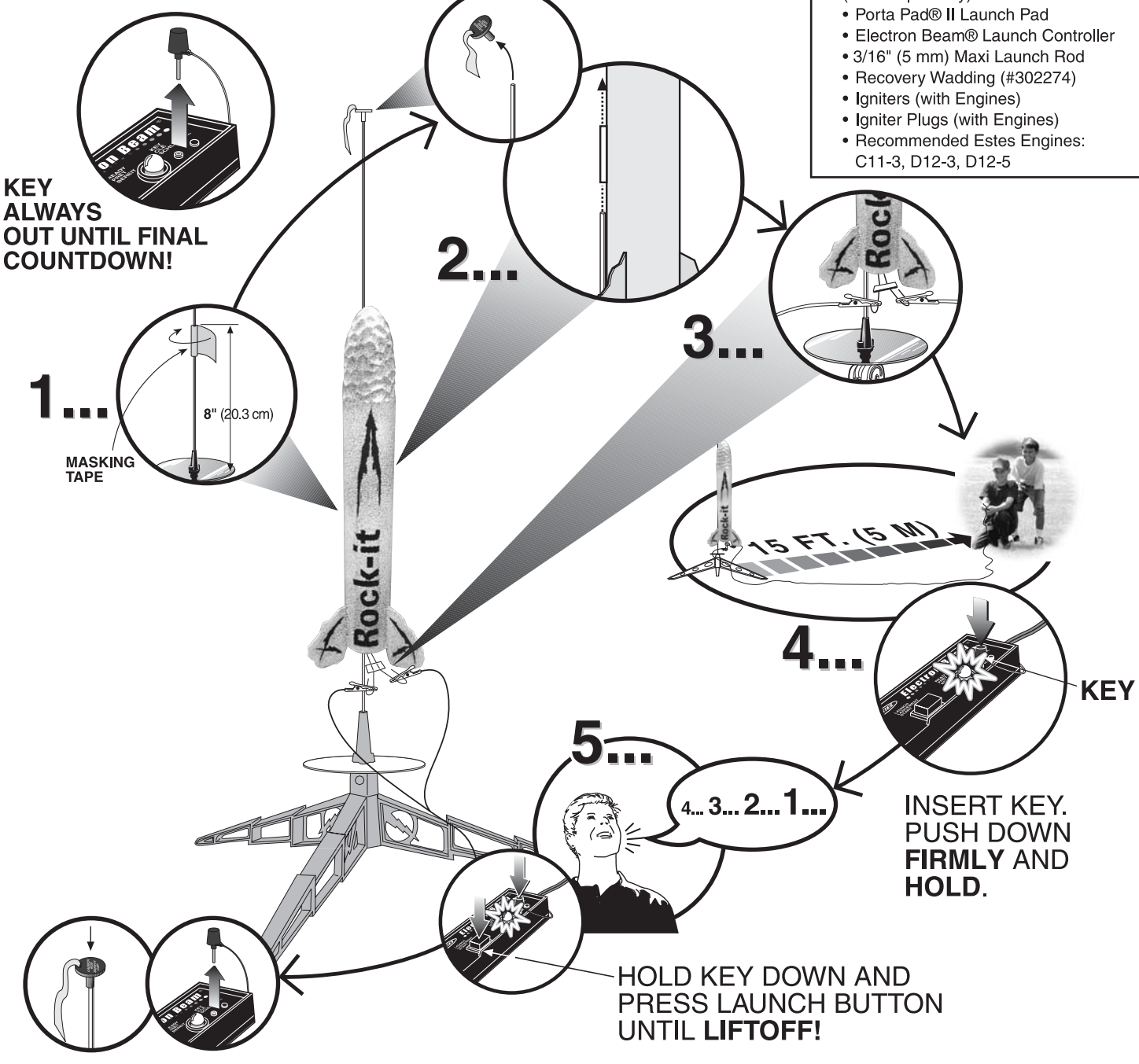


PREPARE ENGINE

WARNING: FLAMMABLE
To avoid serious injury, read instructions & NAR Safety Code included with engines. **PREPARE 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 engine.

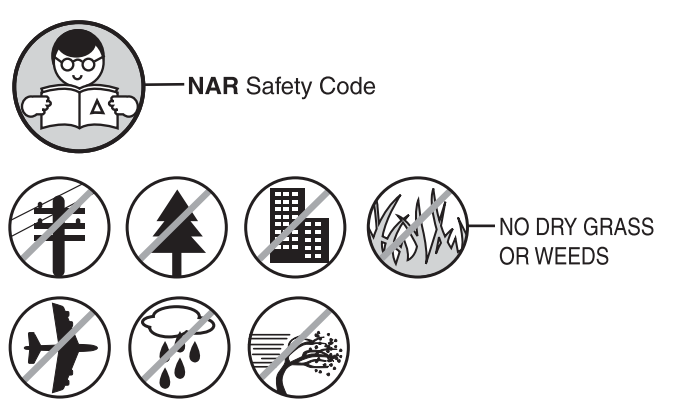


COUNTDOWN AND LAUNCH



- ESTES LAUNCH SUPPLIES**
(Sold Separately)
- Porta Pad® II Launch Pad
 - Electron Beam® Launch Controller
 - 3/16" (5 mm) Maxi Launch Rod
 - Recovery Wadding (#302274)
 - Igniters (with Engines)
 - Igniter Plugs (with Engines)
 - Recommended Estes Engines: C11-3, D12-3, D12-5

PRECAUTIONS



PRE-LAUNCH CHECK

For safety, never launch a damaged rocket. Check the rocket's body, nose cone and fins. Also, check the engine mount, recovery system and launch lug(s). Repair any damage before launching the rocket.

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 the 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! Disconnect the igniter clips and remove the engine. Take 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.

ESTES
www.estesrockets.com
ESTES-COX CORP.
1295 H Street
Penrose, CO 81240
PRINTED IN CHINA

ROCK-IT™

STONE AGE FLYER

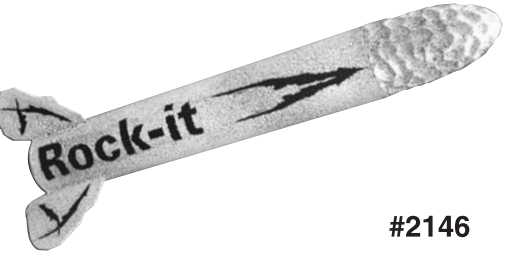
FLYING MODEL ROCKET KIT

INSTRUCTIONS

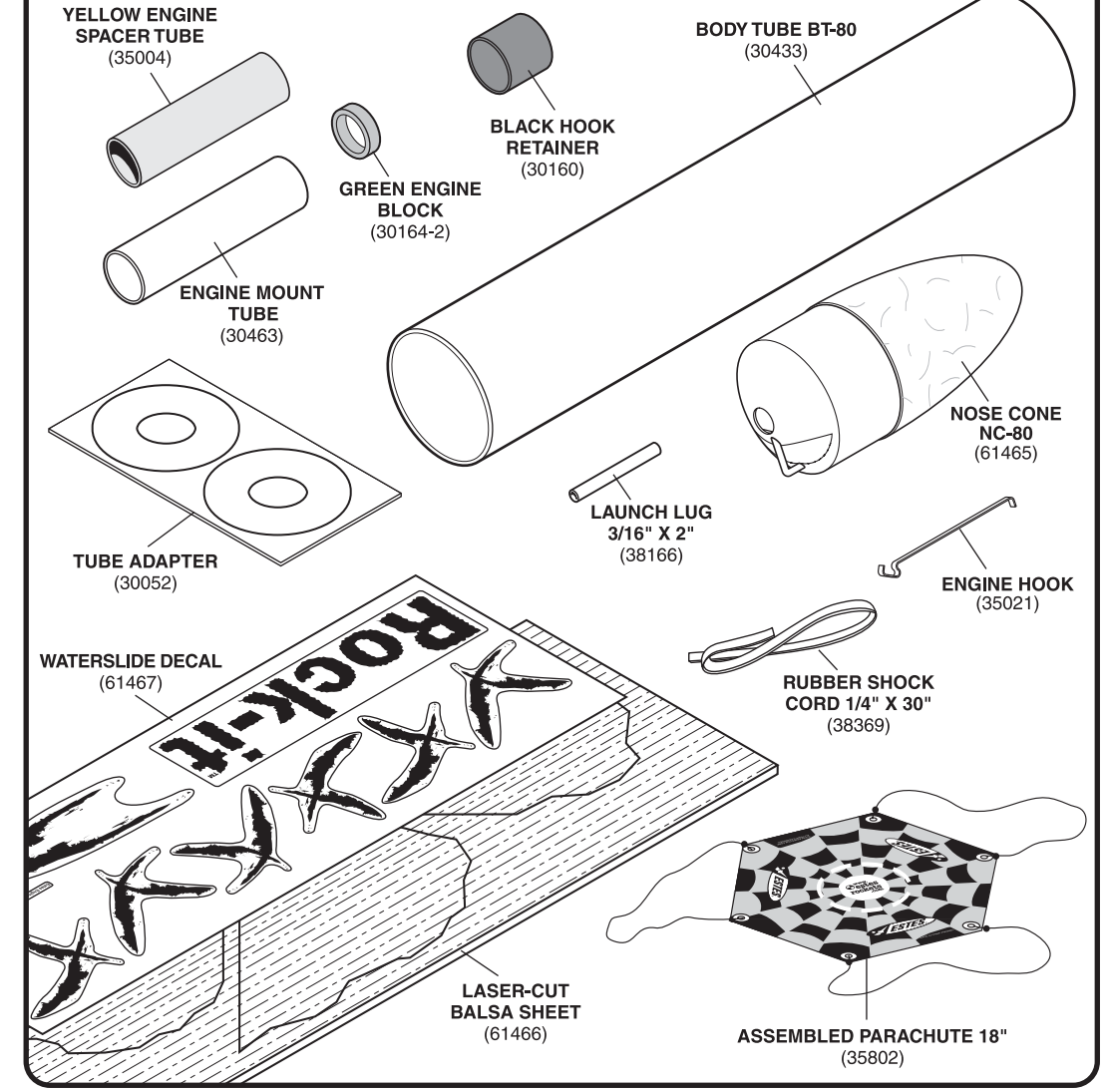
KEEP FOR FUTURE REFERENCE

ASSEMBLY TIP: Read all instructions before beginning work on your model. Make sure you have all parts and supplies.

TEST FIT ALL PARTS TOGETHER BEFORE APPLYING ANY GLUE!
If any parts don't fit properly, sand as required for precision assembly.



PARTS Locate the parts shown below and lay them out on the table in front of you. DO NOT USE THIS DRAWING TO ASSEMBLE YOUR ROCKET.



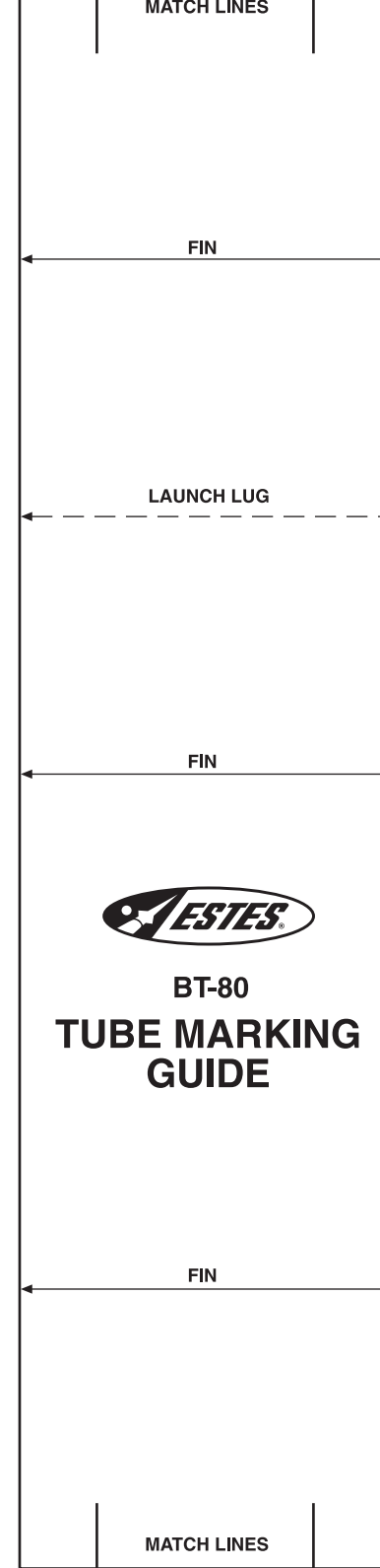
- SUPPLIES** In addition to the parts included in the kit you will also need:
- SCISSORS
 - PENCIL
 - RULER
 - FINE SANDPAPER
 - CARPENTER'S GLUE
 - MODELING KNIFE
 - MASKING TAPE
 - SPRAY PRIMER (GRAY)
 - SPRAY PAINT (LIGHT GRAY STONE TEXTURE)
 - CLEAR COAT (FLAT & GLOSS)
 - DECAL SETTING SOLUTION (or VINEGAR)

ESTES SHOCK CORD MOUNT

SECTION 3

SECTION 2

SECTION 1



1. PREPARE FINS

A. Sand both sides of laser cut balsa sheet with fine sandpaper.

B. Carefully cut fins free with modeling knife.

C. Stack fins together and sand edges smooth, especially the root edge.

D. Save scrap balsa to use as a glue applicator.

2. ASSEMBLE ENGINE MOUNT

A. Measure and mark engine mount tube $3/4"$ (19 mm), $2-1/4"$ (5.7 cm), and $2-3/8"$ (6 cm) from end.

B. Cut a $1/8"$ (3 mm) slit at the $2-1/4"$ (5.7 cm) mark.

C. Measure and mark yellow spacer tool $1/2"$ (13 mm) from end.

D. Smear glue $2"$ (5.1 cm) inside engine mount tube (just short of the slit).

E. Push engine block into engine mount tube with yellow spacer tool up to mark (so the engine block just clears the slit). **Remove yellow spacer tool immediately!** Let dry.

F. Apply glue around the outside of the engine mount tube just ahead of the $3/4"$ (19 mm) mark. Position and insert engine hook into slit as shown.

G. Slide black hook retainer onto engine mount tube down to the $3/4"$ (19 mm) mark. Let dry.

H. Apply a glue band just past the $2-3/8"$ (6 cm) mark and slide one tube adapter ring down tube until it sits evenly in glue band. Let dry.

I. Apply another glue band at end of tube and slide remaining tube adapter ring down tube until it sits evenly in glue band. Let dry.

J. Apply glue reinforcements (fillets) to the adapter ring/engine mount tube joints. Smooth with finger and let dry.

3. MARK MAIN BODY TUBE

A. Cut out the tube marking guide from front page. Wrap the guide around the main body tube near one end of main body tube and secure with masking tape as shown in step B.

B. Make a pencil mark at each arrowhead. Label the launch lug line "LL".

C. Using a door frame, extend the launch lug line the entire length of the body tube, and the fin lines about 3" (7.6 cm).

D. Measure and mark main body tube 5" (12.7 cm) on the "LL" line.

4. INSTALL ENGINE MOUNT

A. Using a scrap piece of balsa, apply a band of glue band about $3-3/4"$ (9.5 cm) inside the main body tube.

B. Insert engine mount into body tube until both tube ends are even. Insert so the engine hook is in line with the launch lug line.

C. Apply glue fillet to the tube adapter with scrap balsa as shown.

5. ATTACH FINS

A. Apply a thin layer of glue to root edge of fin and wait one minute. Apply a second layer and attach fin to body tube noting correct fin position. Align edge of fin with fin line, flush with end of tube.

B. Repeat for remaining fins.

C. Check alignment of fins as shown.

D. Stand rocket on flat table until glue dries completely.

NOTE: Fins must be attached correctly for stable flight!

6. ATTACH LAUNCH LUG AND APPLY FILLETS

A. Apply glue to launch lug and align on launch lug line at 5" (12.7 cm) mark as shown. Make sure launch lug is aligned properly before glue dries. Let dry.

B. Apply glue fillets to both sides of fin and launch lug joints. Smooth each fillet with your finger. Let dry completely.

7. FINISHING YOUR ROCKET

A. Spray entire model (fins, body, & nose cone) with gray primer. Let dry and sand. **DO NOT** get primer or paint on nose cone shoulder or in launch lug.

B. Spray entire model with light gray stone texture spray paint. Allow to dry overnight.

C. Spray entire model with gloss clear coat spray. Allow spray to dry at least one hour.

D. To apply waterslide decals, cut out an individual section of the decal and dip in lukewarm water for 10-15 seconds (one section at a time) and set aside on a paper towel.

E. Note decal positions on photo below. Brush decal setting solution (or vinegar) to area where decal will be applied.

F. Slide one edge of the decal off the backing paper. Place the exposed edge where you want it to go. Hold the decal in place while slipping the backing paper from underneath. Position in place as needed.

G. Use a paper towel to blot out any air and water from under decal. Work from the center out with a rolling motion.

H. Once the decal is in place, brush decal setting solution (or vinegar) over the decal.

I. Repeat process for remaining decal sections. Allow at least 2 hours for the decals to fully dry.

J. OPTIONAL: Finish the model with a flat clear lacquer top coat after paint dries and after final decal touch-up. Allow the final top coat to dry overnight before flying.