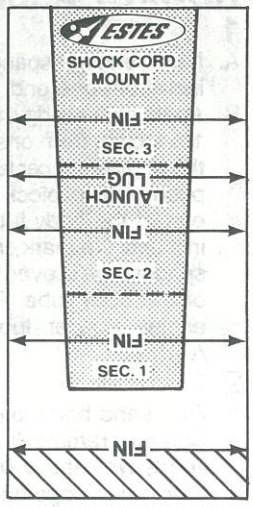
A DAMON COMPANY
ESTES INDUSTRIES
1295 H Street
Penrose, CO 81240 USA

LASER™ Flying Model Rocket #1938



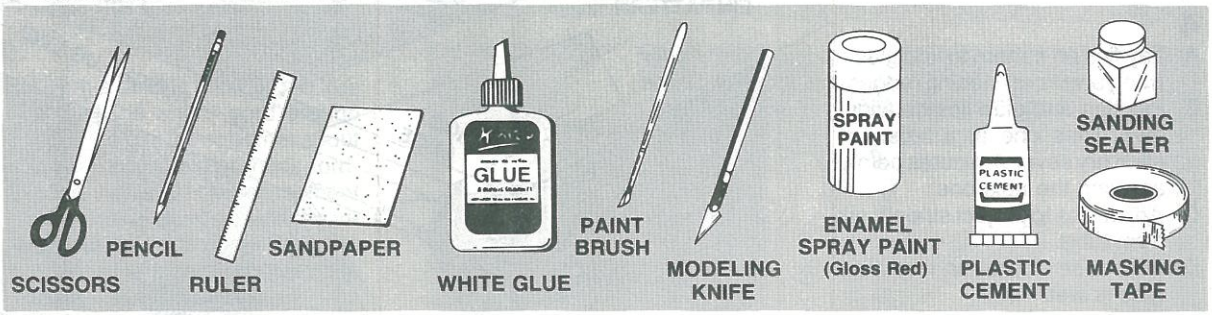
TUBE MARKING GUIDE

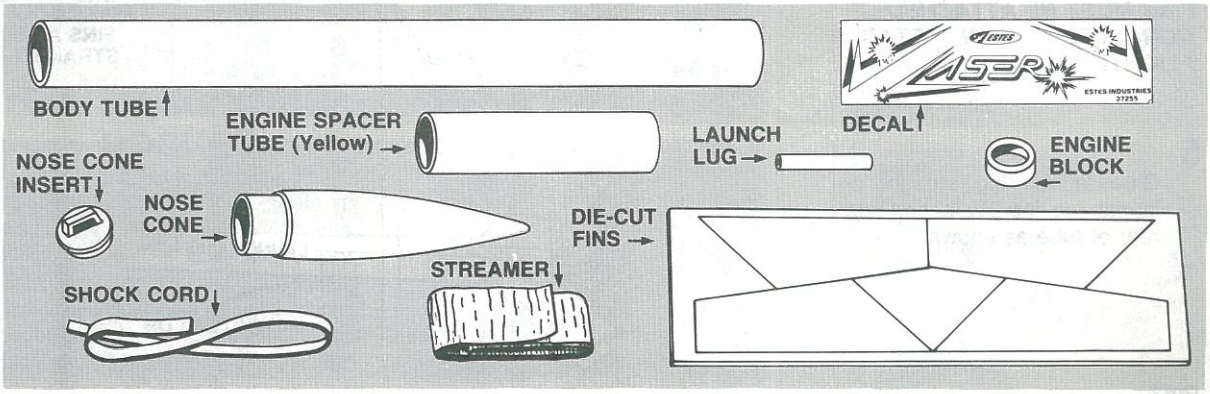
ASSEMBLY TIP

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 AND SUPPLIES

Locate the parts shown below and lay them out on the table in front of you. In addition to the parts included in the kit you will also need:



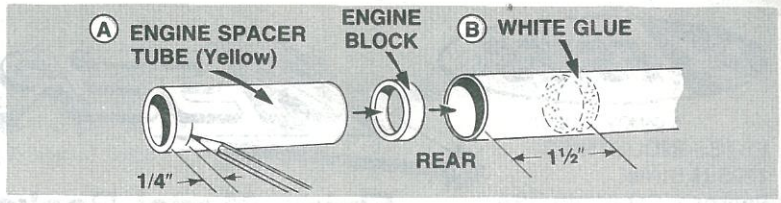


ROCKET ASSEMBLY

1

A. Mark engine spacer tube 1/4 inch from one end.

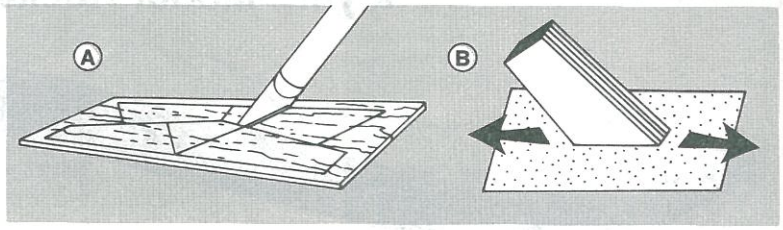
B. Apply glue inside the body tube 1½ inches from one end. Using the engine spacer tube (yellow), push engine block up into the end of the body tube with glue in it until the mark on the engine spacer tube is even with the end of the body tube. Remove the engine spacer tube IMMEDIATELY.



2

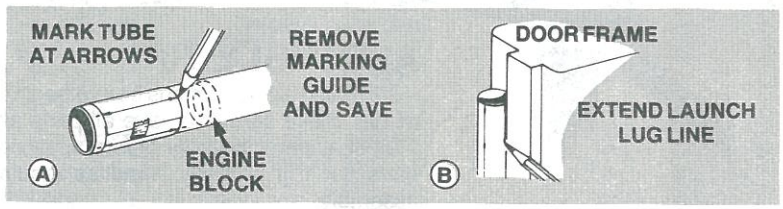
A. Fine sand balsa pre-cut sheet. Carefully remove fins by freeing edges with sharp knife.

B. Stack fins together. Sand all edges smooth.



3

A. Cut out tube marking guide from front of instructions and wrap guide around the tube. Secure it with tape. Mark tube at arrows and remove guide and save.



4

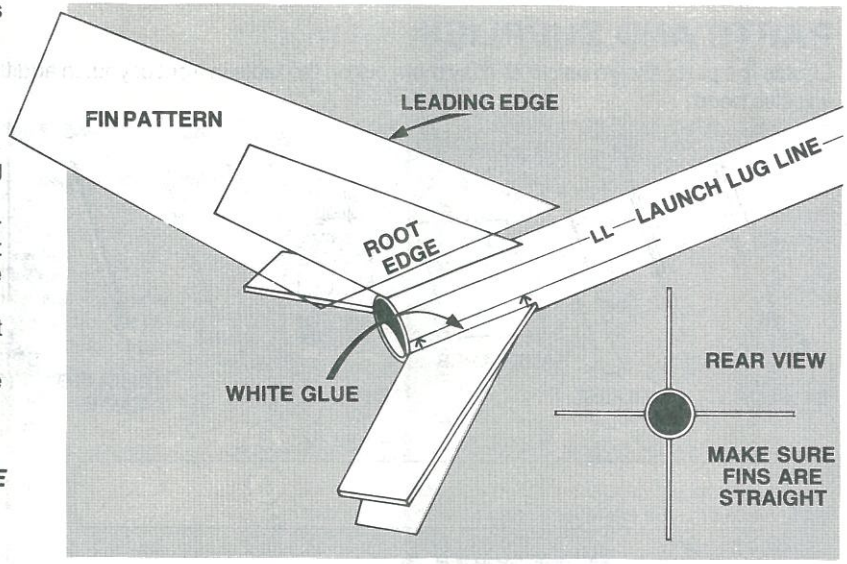
A. Lay fins on pattern to find gluing (root) and front (leading) edges.

B. Position and glue fins on alignment lines one at a time. Let each dry several minutes before applying the next one.

C. Adjust fins to project straight out from tube.

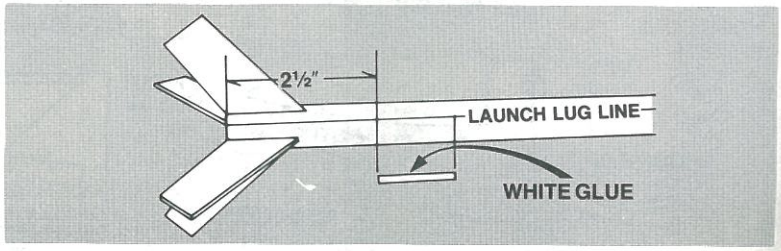
D. Do not set rocket on fins while glue is wet.

FINS MUST BE ATTACHED CORRECTLY FOR STABLE FLIGHT!



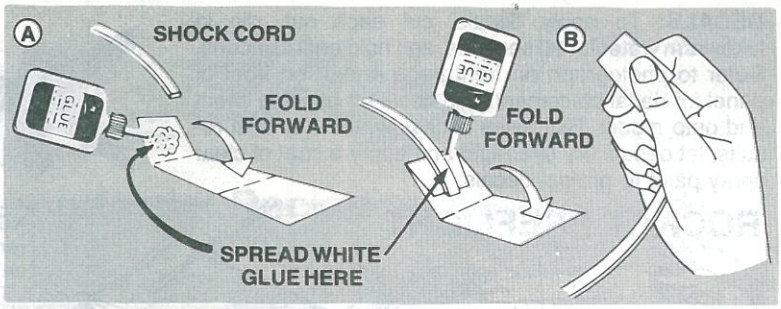
5

Glue launch lug straight on launch lug line 2½ inches from rear of tube as shown.



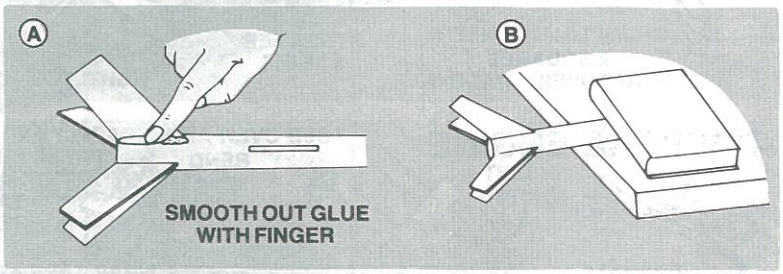
6

A. Cut shock cord mount from tube marking guide. Crease on dotted lines by folding. Spread glue on section 1 and lay end of shock cord into glue. Fold over and apply glue to back of first section and exposed part of section 2. Lay shock cord as shown and fold mount over again.
B. Clamp unit together with fingers until glue sets.



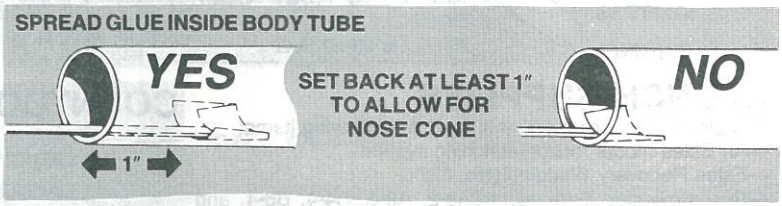
7

A. Apply a glue reinforcement to each fin/body tube joint and each side of launch lug.
B. Support rocket as shown until glue dries.



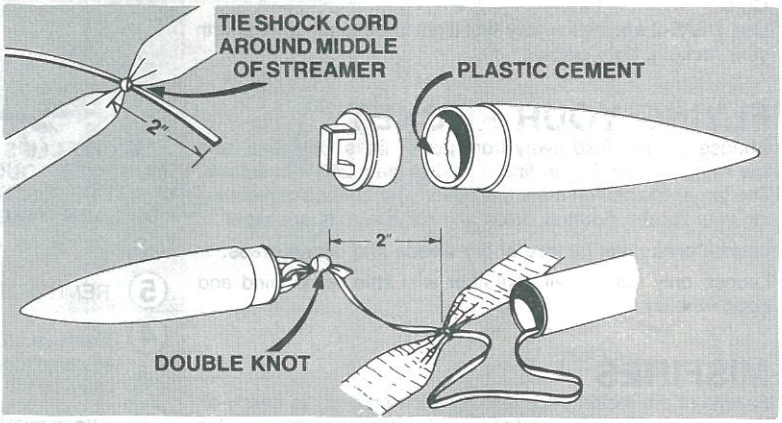
8

A. Apply glue inside front of body tube to cover an area no less than 1 inch to 2 inches from end. The glued area should be same size as shock cord mount.
B. Hold until glue sets.



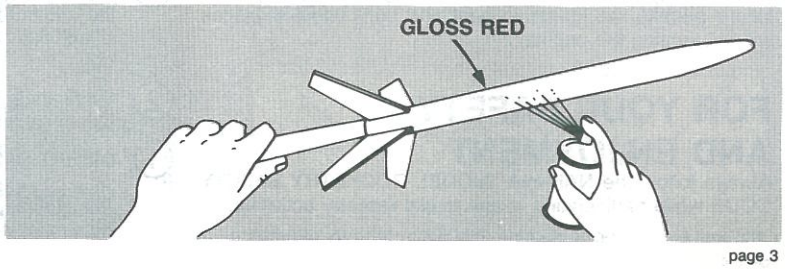
9

A. Using a double knot, tie the free end of the shock cord around the middle of the streamer about 2 inches from end of shock cord.
B. Apply plastic model cement (NOT white glue) around the inside of the nose cone. Push the nose cone insert into the nose cone. Let cement dry.
C. Tie end of shock cord to nose cone loop.

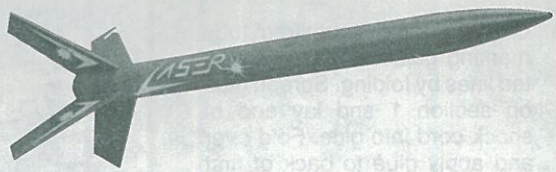


FINISHING YOUR ROCKET

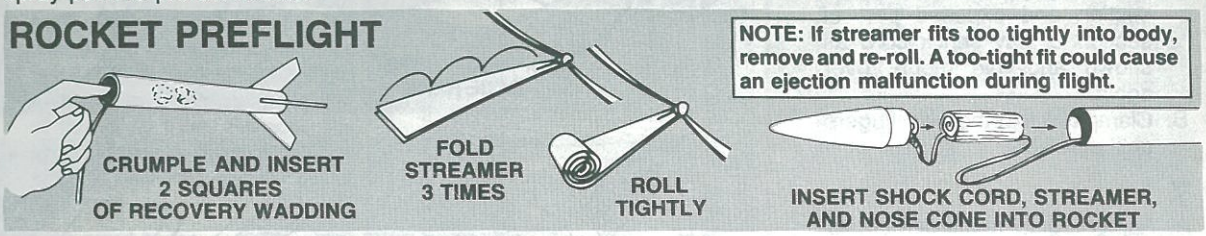
Apply sanding sealer to wood parts with small brush. When sealer is dry, lightly sand all sealed surfaces. When sealer is completely dry, paint entire model with gloss red spray enamel. Follow instructions on spray can for best resuls. Let paint dry overnight.



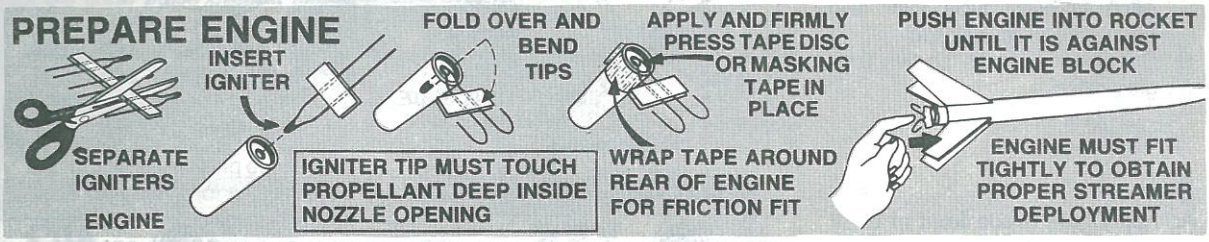
DECALS: To apply decals, cut each out, dip in lukewarm water for 20 seconds, and hold until it uncurls. Refer to photograph on front page and/or on front of panel for decal placement. Slip decal off backing sheet and onto model. Blot away excess water. For best results, let decals dry overnight and apply a coat of clear spray paint to protect decals.



ROCKET PREFLIGHT



PREPARE ENGINE



LAUNCH SUPPLIES

To launch your rocket you will need the following items:
—An Estes model rocket launching system
—Estes Recovery Wadding (No. 2274)
—Recommended Engines: 1/2A6-2, A8-3, B4-4, B6-4, and C6-5
Use 1/2A6-2 engine for your first flight to become familiar with your rocket's flight pattern.

FLYING YOUR ROCKET

Choose a large field away from power lines, tall trees, and low flying aircraft. Try to find a field at least 250 feet square. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great.

Launch area must be free of dry weeds and brown grass.

Launch only during calm weather with little or no wind and good visibility.

MISFIRES

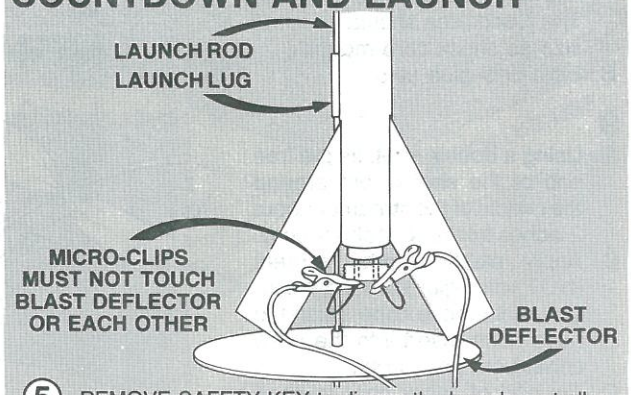
Failure of the rocket engine to function properly is nearly always caused by a failure to install the igniter correctly. This failure permits the igniter to heat and burn into two pieces without igniting the engine.

FOR YOUR SAFETY AND ENJOYMENT

Always follow the NAR-HIA* MODEL ROCKETRY SAFETY CODE while participating in any model rocketry activities.

*National Association of Rocketry-The Hobby Industry of America

COUNTDOWN AND LAUNCH



5. REMOVE SAFETY KEY to disarm the launch controller.
4. Remove safety cap and slide launch lug over launch rod to place rocket on launch pad. Make sure the rocket slides freely on the launch rod.
3. Attach micro-clips to the igniter wires. Arrange the clips so they do not touch each other or the metal blast deflector. Attach clips as close to protective tape on igniter as possible.
2. Move back from your rocket as far as launch wire will permit (at least 15 feet).
1. INSERT SAFETY KEY to arm the launch controller.

LAUNCH!!! **PUSH AND HOLD LAUNCH BUTTON UNTIL ENGINE IGNITES**

Remove safety key—Replace cap on rod.