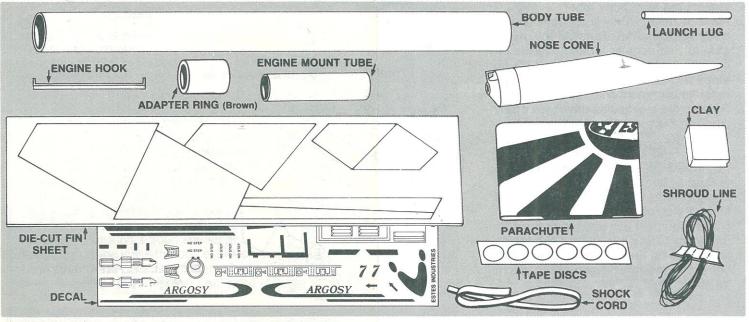


PARTS AND SUPPLIES

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:

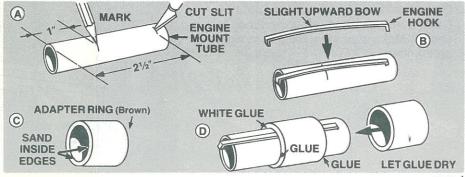




ROCKET ASSEMBLY

A. Mark engine mount tube 1 inch and 2½ inches from one end and then cut 1/8 inch long slit at 2½ inch mark.

- B. Insert one end of engine hook into slit.
- C. Sand inside edges of adapter ring.
- D. Slide adapter ring onto tube as shown to the 1 inch mark and then glue both ends of ring to tube.



2

- A. Fine sand balsa die-cut sheet. Carefully remove fins by freeing edges with sharp knife.
- B. Stack similar fins together. Sand all edges smooth.

3

- A. Using a piece of scrap balsa, smear glue inside body tube 1½ inches from one end.
- B. Push engine mount in until tube ends are even.

4

- A. Cut out tube marking guide from front of instructions. Wrap guide around the tube and tape. Place launch lug line even with engine hook. Mark tube at arrows. Indicate main fin marks and launch lug marks from other marks. Remove guide and save.
- B. Connect marks with pencil lines and extend all lines the full length of tube.

5

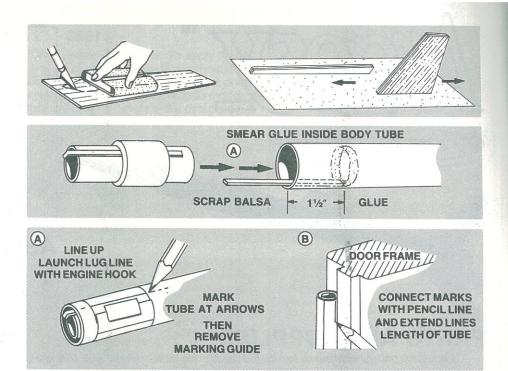
READ ALL OF STEP 5 BEFORE GLUING

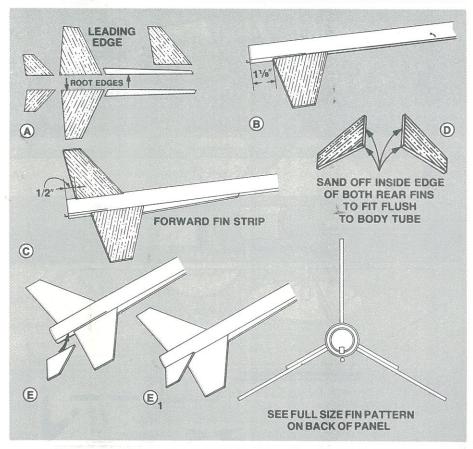
Position fin pieces as shown to find leading edges and root edges.

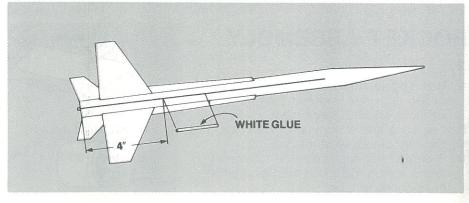
- B. Make a mark 1½ inches from rear end of body tube on the main fin alignment lines. Apply glue to root edge of both main fins and position on main fin alignment lines as shown. Fins should project straight out from body tube.
- C. Make a mark 1/2 inch up from end of body tube on tail fin alignment line. Apply glue to root edge of fin and position on line as shown. Apply glue to forward fin strips and position against main fins on main fin alignment lines as shown.
- D. Position the rear fins as shown (as if they were on the rocket) and lightly sand-inside edges. TEST FIT REAR FIN ON ROCKET AS SHOWN IN FIG. © BEFORE SANDING. The root edges should fit flush to body tube.
- E. Apply glue to root edge of rear fin and first 1/2 inch of underside of fin. Position fin on alignment line and top of main fin as shown. Check positions of all fins with fin pattern on back of panel. Make sure fins are in positions shown on fin pattern for stable flight!

6

A. Glue launch lug on launch lug line 4 inches from rear end of body tube as shown. Make sure launch lug is straight on the line.







7

A. Cut shock cord mount from tube marking guide.

- B. 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 with fingers and fold mount over again.
- C. Clamp unit together with fingers until glue sets.

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. Press mount firmly into glue as shown.
- C. Hold until glue sets.

9

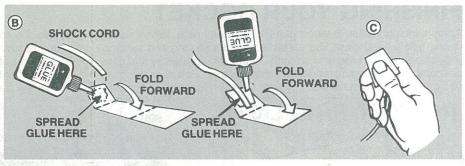
- A. Apply glue reinforcement to each fin/ body tube joint and each side of launch lug.
- B. Support rocket as shown until glue dries.

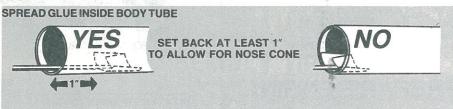
10

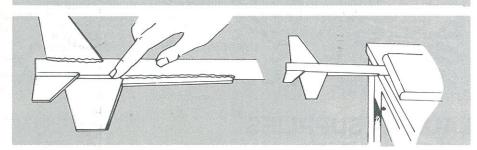
- A. Roll clay into small pellets (small enough to fit through hole in nose cone). Drop pellets into nose cone one at a time. Using a piece of scrap balsa, force clay pellets as far forward in nose cone as possible. Use entire piece of clay.
- B. Test fit nose cone in body tube. The nose cone should slide in smoothly, if not sand the shoulder.

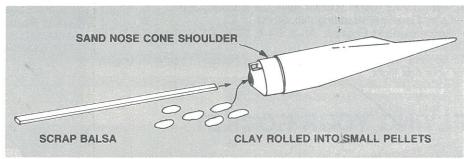
11

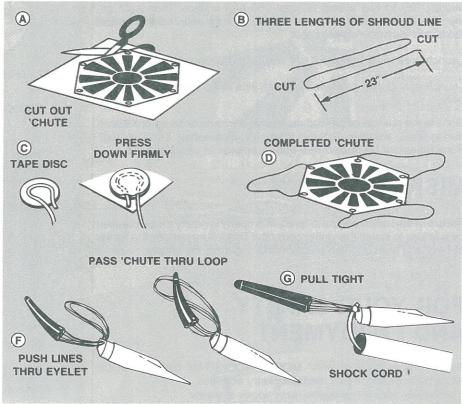
- A. Cut out parachute on edge lines.
- B. Cut three 23 inch lengths of shroud line.
- C. Form small loops with shroud line ends and press onto sticky side of tape discs.
- D. Attach tape discs with line ends to top of parachute as shown.
- E. <u>Firmly</u> press tape discs into place until both tape discs and parachute material are molded around shroud line loops.
- F. Pass shroud line loops through eyelet on nose cone. Pass parachute through loop ends and pull lines against the nose cone.
- G. Tie free end of shock cord to nose cone eyelet.







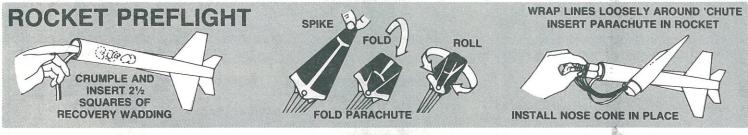




FINISHING YOUR ROCKET

Apply sanding sealer to wood parts with small brush. When sealer is dry, lightly sand all sealed surfaces. Repeat sealing and sanding until balsa grain is filled and smooth. When sanding sealer and glue are completely dry, paint model with spray enamel. Follow instructions on spray can for best results. Let paint dry overnight before applying

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.





LAUNCH SUPPLIES

To launch your rocket you will need the following items:

-Estes Recovery Wadding (No. 2274)

—Recommended Engines: A8-3, B4-4, B6-4, C5-3, C6-3, C6-5, or C6-7

To become familiar with your rocket's flight pattern, use A8-3 engine for your first flight.

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.

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 powder to avoid sticking.

MISFIRES

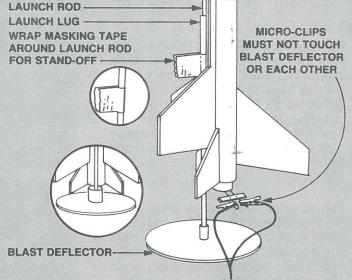
Failure of the rocket engine to function properly is nearly always caused by a failure to install the igniter correctly. This failure permits the igniter to heat and burn into two pieces without igniting the engine.

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 page 4

COUNTDOWN AND LAUNCH



- 10 REMOVE SAFETY KEY to disarm the launch controller.
- 9 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. You will need to use a rocket stand-off. One may have come with your launcher. If you do not have one, you can make a stand-off by wrapping masking tape around the rod as shown.
- 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.
- Move back from your rocket as far as launch wire will permit, (at least 15 feet).
- 6 INSERT SAFETY KEY to arm the launch controller. Give audible countdown. . .5. . .4. . .3. . .2. . .1. . .

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

Remove safety key-Replace cap on rod.