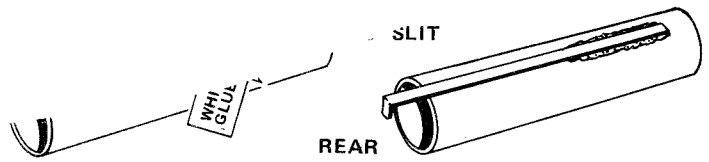
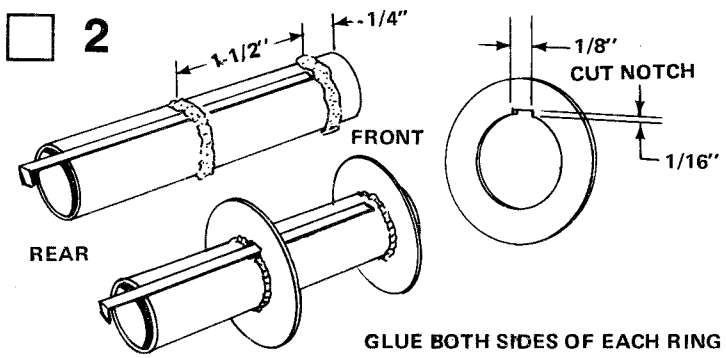
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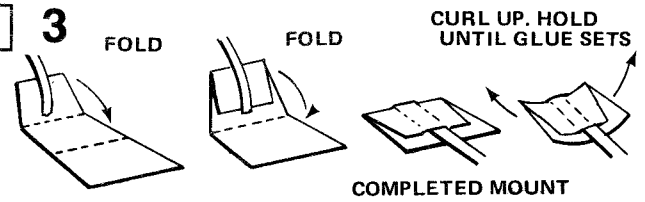
Cut a 1/8 inch wide slit in the engine mount tube (part A), 1/4 inch from one end as shown. Apply a 1½ inch long line of glue to the tube as shown. Push one end of the engine hook (part C) into the slit and press the main part of the hook into the glue.

☐ 2



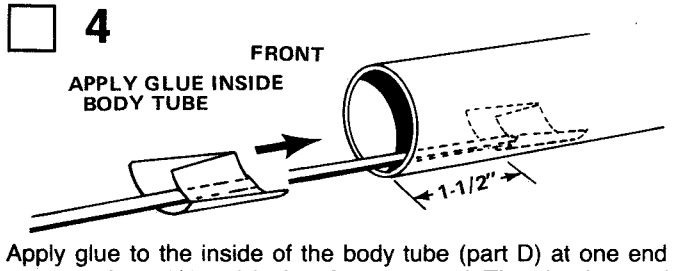
Separate the adapter rings from the die-cut card (part B). Cut a notch in one of the rings as illustrated and glue the rings to the engine mount tube. The notched ring should be placed over the engine hook. Let this assembly dry completely.

☐ 3



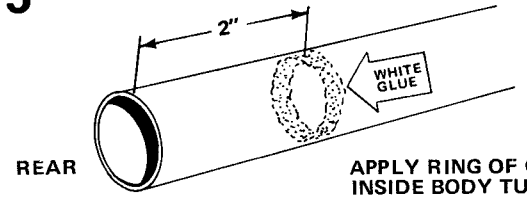
Cut out the shock cord mount (part N). Fold on dotted lines, then unfold and apply glue to Section 1. Lay the end of the shock cord (part G) into the glue. Fold over and apply glue to the back of Section 1 and the exposed portion of Section 2. Fold again to complete mount. Curl the edges of the mount up so it will match the contour of the body tube and hold with your fingers until the glue sets.

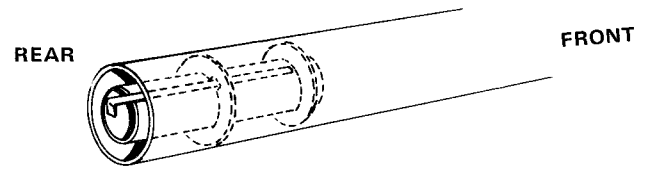
☐ 4



Apply glue to the inside of the body tube (part D) at one end over an area about 1½ to 2 inches from one end. The glued area should be the same size as the shock cord mount. Press the mount into the glue as shown and hold it until the glue sets.

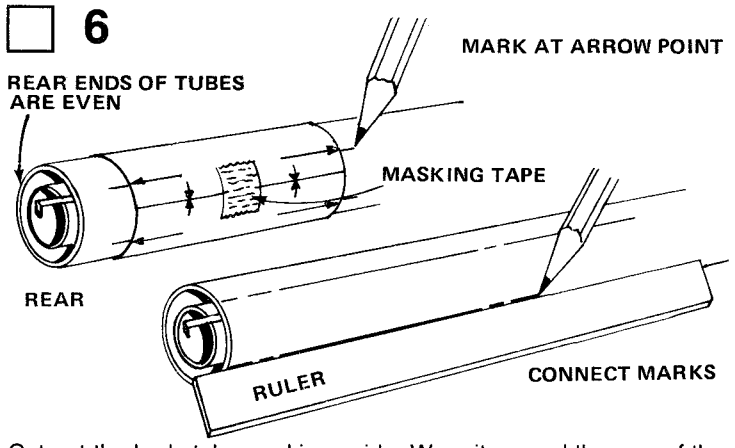
☐ 5





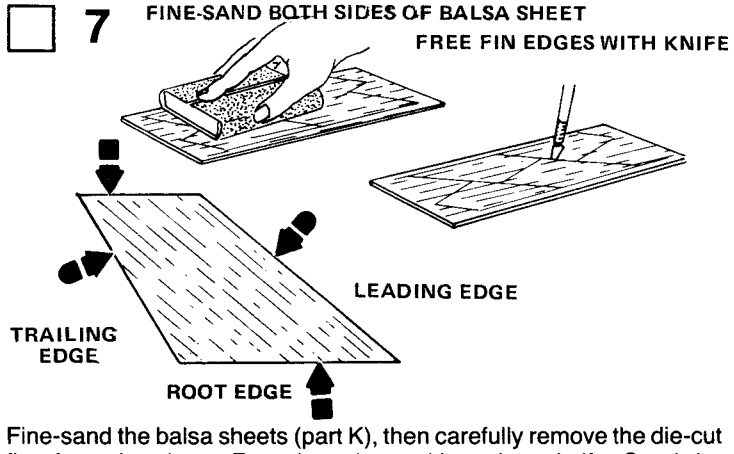
Test-fit the engine mount assembly into the other end of the 18 inch long body tube. If necessary, sand the edges of the rings until the unit slides smoothly in the tube. Apply a ring of glue around inside of rear end of body tube about 2 inches to 2½ inches from the end of the tube. Immediately slide the engine mount into place, unnotched ring first, so the end of the engine mount is even with the rear of the body tube. Do not pause during this operation, or the glue may stick with the mount in the wrong position.

☐ 6



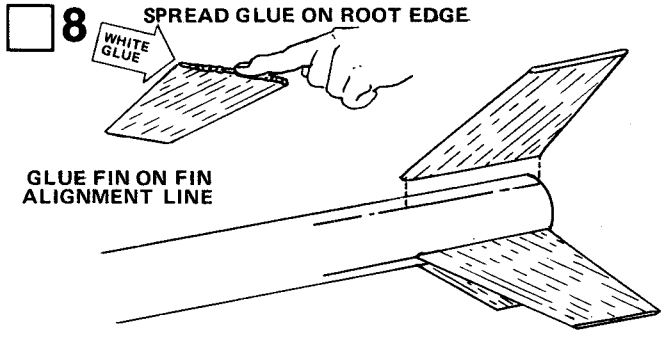
Cut out the body tube marking guide. Wrap it around the rear of the body tube. Mark the tube at each arrow point, front and rear. Draw a straight line connecting each matching front and rear mark. (Use a ruler when drawing lines.) Extend the launch lug line forward 8 inches (align launch lug line with engine hook).

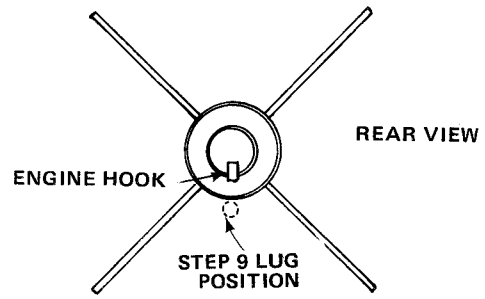
☐ 7



Fine-sand the balsa sheets (part K), then carefully remove the die-cut fins from the sheet. Free the edges with a sharp knife. Sand the leading and trailing edges of the fins round. Leave the other edges square.

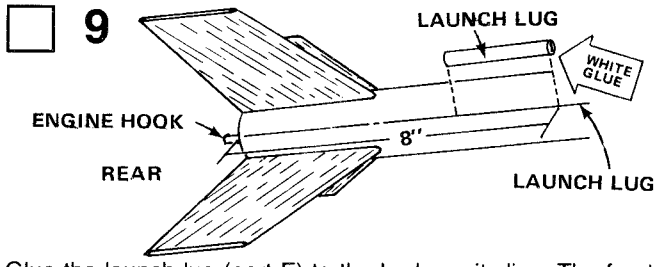
☐ 8





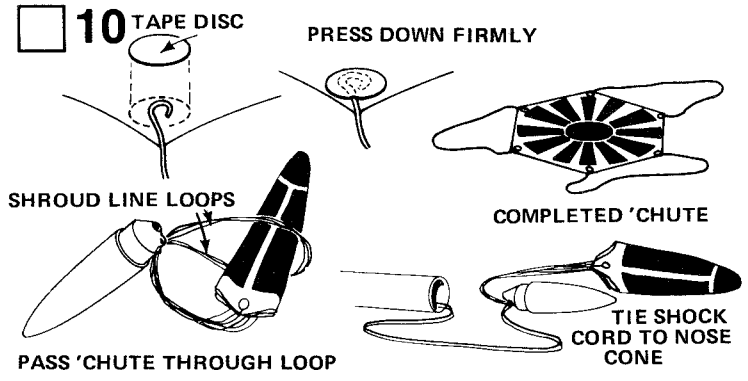
Apply glue to the root edge of one fin. Glue fin to the fin alignment line so rear of fin is even with the end of the body tube. Be sure fin projects straight out from the body tube. Allow to dry. Repeat for the remaining fins.

☐ 9



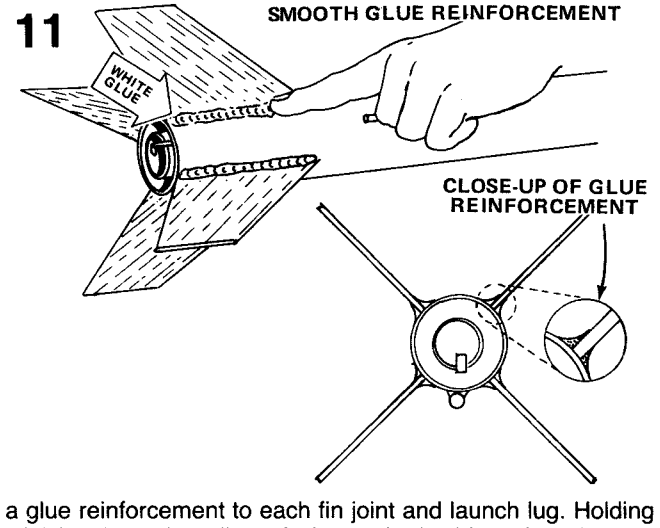
Glue the launch lug (part E) to the body on its line. The front of the lug should be 8 inches from the rear of the body. Align it straight on the body.

☐ 10



Cut out the parachute (part J) on its edge lines. Cut three 36 inch lengths of shroud line (part H). Attach line ends to the top of the parachute with tape discs (part I) as shown. Pass the shroud line loops through the ring on the nose cone (part F). Pass the parachute through the loop ends and draw the lines tight against the ring. Set the knot with a drop of glue. Tie the free end of the shock cord to the nose cone ring.

☐ 11



Apply a glue reinforcement to each fin joint and launch lug. Holding the model level, apply a line of glue to both sides of each joint. Smooth out the glue with your finger. Keep the model level until the glue dries.

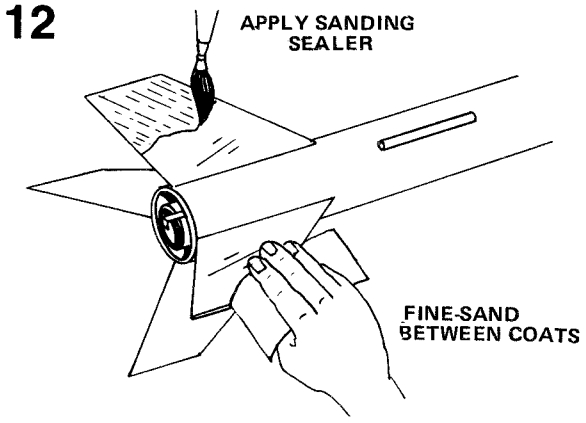
PAINTING AND DETAILING

It is recommended that after the first trial flights, and before higher altitude flights, that finishing, sanding, and painting be done. This will increase the altitude achieved.

Your model will be ready to fly as soon as the glue dries. The length of time required for the glue to dry varies from about one hour to several hours. The lower the temperature, the higher the humidity, and the more glue you applied, the longer is the time required for the glue to dry. If you used white glue, do not fly the model until the glue has dried enough to be clear.

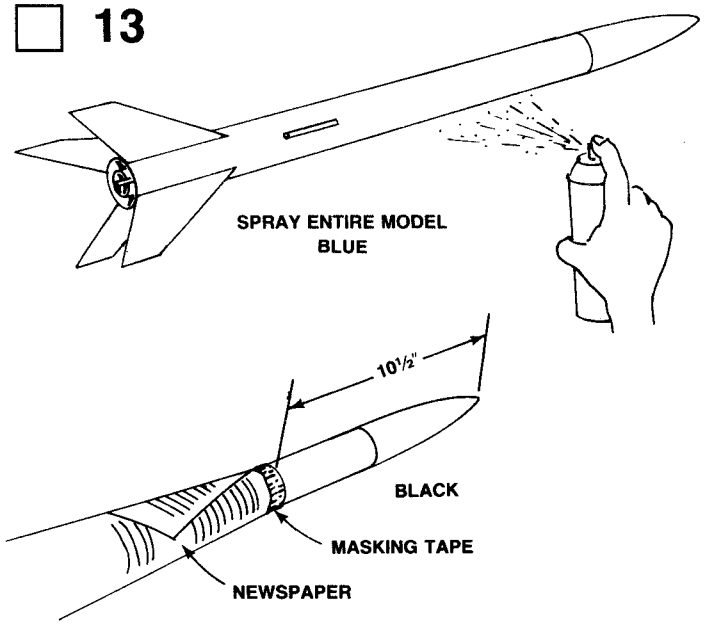
The THUNDERBOLT flies well without the application of sanding sealer and paint. To achieve superior performance, the balsa should be sealed and then the entire model given a smooth coat of paint to reduce drag.

☐ 12



Apply all glue reinforcements to fins and launch lug as shown in Step 11. There will be ten reinforcements. Let all glue dry completely. Apply sanding sealer to all balsa surfaces. Allow the sealer to dry and sand it smooth. Repeat this step as many times as needed to fill all the grain lines in the wood. Use spray enamel to finish your model.

☐ 13



Spray paint the entire rocket with blue spray enamel. When this is dry, measure 10½ inches from the tip of the nose cone down the body tube and place a mark. Wrap the remaining portion of the rocket with newspaper and seal with masking tape to prevent the paint from running under the paper. Spray paint the nose cone and body tube to the mark with black spray enamel. When painting your rocket, spray several light "mist" coats of paint rather than one heavy coat.