

Astra™

ASSEMBLY INSTRUCTIONS

Things You'll Need To Assemble this Kit:

Hobby Knife, Pencil and Paint Brush

Sandpaper (220 or 320 Grit) & Sanding Sealer

White Glue

Aliphatic Resin glues work best such as TITEBOND or ELMER'S CARPENTER'S WOOD GLUE - ELMER'S WHITE SCHOOL GLUE also works but dries slower.

Plastic Cement

Use TESTORS TUBE Plastic Cement, PACTRA LIQUID CEMENT or other comparable brands. DO NOT use cyanoacrylate glue.

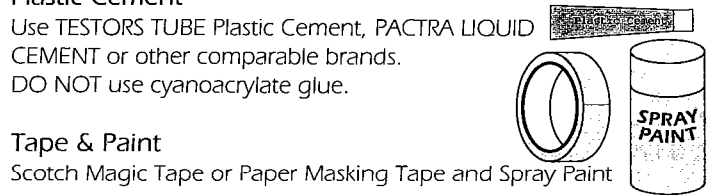
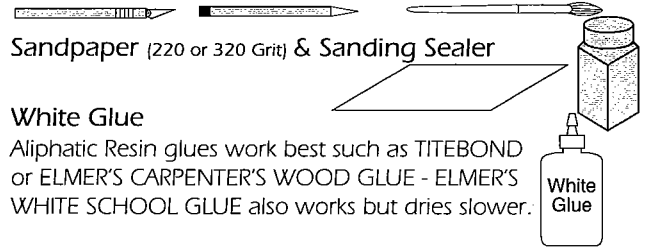
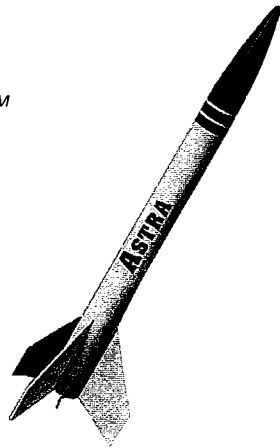
Tape & Paint

Scotch Magic Tape or Paper Masking Tape and Spray Paint



Product No. 1504

Skill Level One

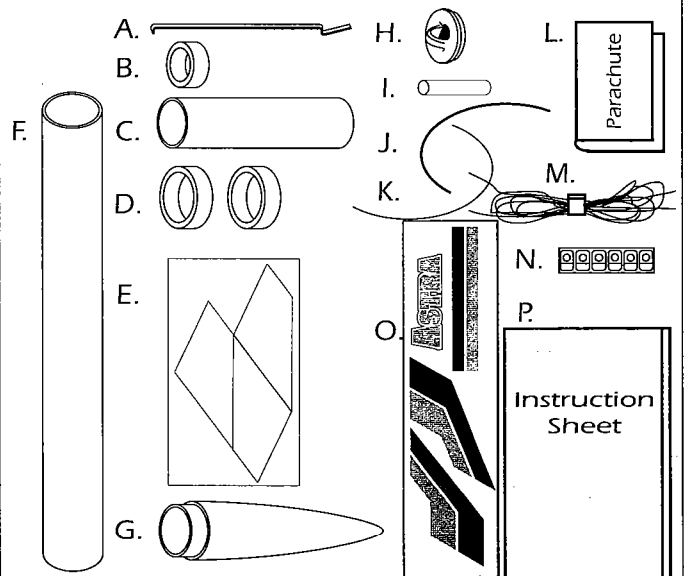


**BEFORE STARTING ASSEMBLY READ THROUGH THESE INSTRUCTIONS.
IT IS BEST TO TEST FIT ALL PARTS BEFORE APPLYING ANY GLUE.
READ AND FOLLOW THE NAR MODEL ROCKET SAFETY CODE.**

PARTS LIST

- A. 49000 Motor Clip
- B. 14000 Blue Thrust Ring
- C. 10301 Yellow Motor Mount Tube
- D. 14050 Red Centering Ring (2)
- E. 33000 Die-Cut Balsa Fin Set
- F. 11303 White Body Tube
- G. 20100 Plastic Nose Cone
- H. 20101 Nose Cone Base
- I. 10000 Launch Lug
- J. 50011 18 inch White Elastic Shock Cord
- K. 50050 12 inch Yellow Kevlar* Shock Cord
- L. 28102 12 inch Parachute
- M. 50100 Pack of 3-26 inch Shroud Lines
- N. 28001 Strip of 6 Gripper Tabs
- O. 91502 Self-Adhesive Decal
- P. 96002/96102 Instruction Sheet

* Kevlar is a registered trademark of Dupont

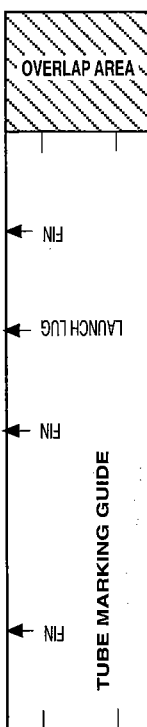
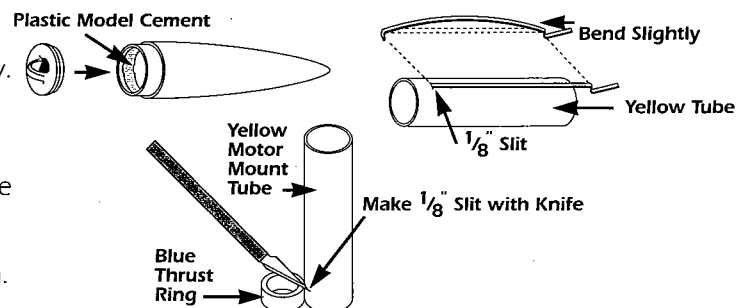


STEP 1

A. Apply plastic model cement (not white glue) around the inside edge of the plastic nose cone. Push the base into the nose cone. Set aside to dry.

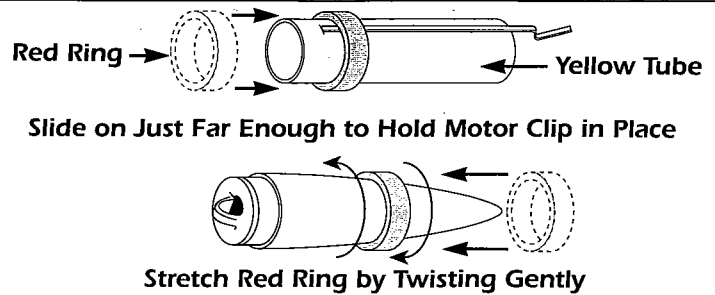
B. Place the Blue Thrust Ring up against the side of the Yellow Motor Mount Tube and use it as a guide to make a small 1/8 inch long slit in the side of the Yellow Motor Mount Tube as shown.

C. Make a slight bend in the Motor Clip as shown. Insert the Motor Clip into the slit you made in the Yellow Motor Mount Tube.



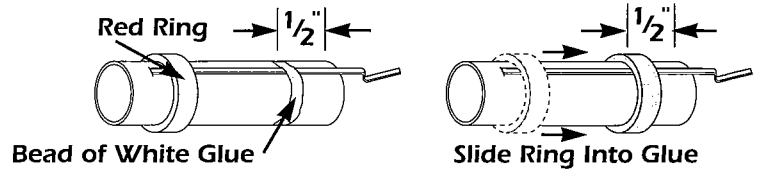
STEP 2

A. Test fit one of the Red Centering Rings onto the Yellow Motor Mount Tube. If it does not slide on easily, stretch the Red Ring by sliding it over the Nose Cone and gently twisting it back and forth a few times. Slide the Red Ring onto the Yellow Tube just far enough to hold the Motor Clip in place.



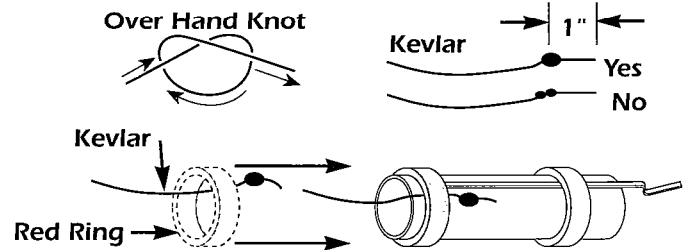
STEP 3

A. Apply a bead of white glue around the Yellow Motor Mount Tube 1/2 inch from the end as shown.
B. Slide the Red Ring into the bead of glue. Wipe away any excess glue.



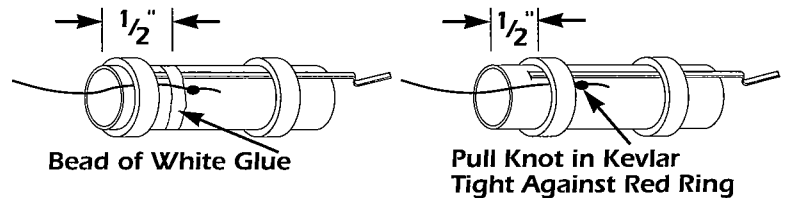
STEP 4

A. Tie two overhand knots 1 inch in from the end of the Kevlar Cord.
B. Pass the end of the Kevlar with the knot through the remaining Red Centering Ring.
C. Slide the Red Centering Ring with the Kevlar under it onto the Yellow Motor Mount Tube.



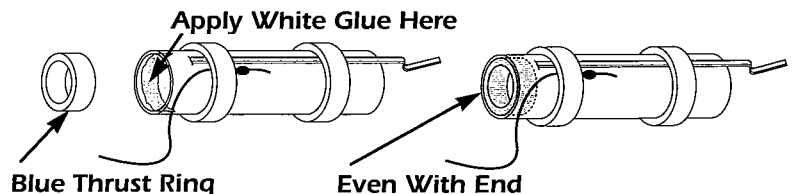
STEP 5

A. Apply a bead of white glue around the Yellow Motor Mount Tube 1/2 inch from the end as shown.
B. Slide the Red Ring into the bead of glue. Wipe away any excess glue.
C. Pull the Yellow Kevlar Shock Cord up tight against the Red Centering Ring.



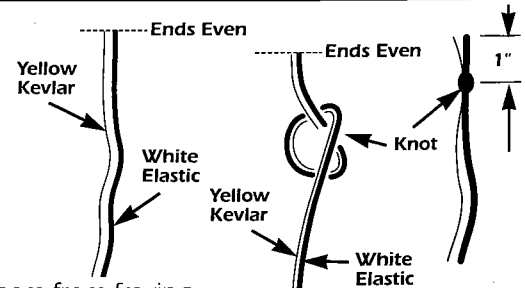
STEP 6

A. Apply white glue around inside edge of Yellow Motor Mount Tube as shown,
B. Insert the Blue Thrust Ring into the Yellow Motor Mount Tube so it is even with the end of the Yellow Motor Mount Tube.



STEP 7

A. Hold the Yellow Kevlar Shock Cord and the White Elastic Shock Cord side by side. Pull one end of each cord so that they are even with each other. While holding the two cords together, tie a single parallel overhand knot approximately one inch in from the even ends as shown.
B. Gently pull on both cords to set the knot and prevent it from slipping.
C. Apply a small amount of white glue on the ends of both cords to prevent them from fraying.



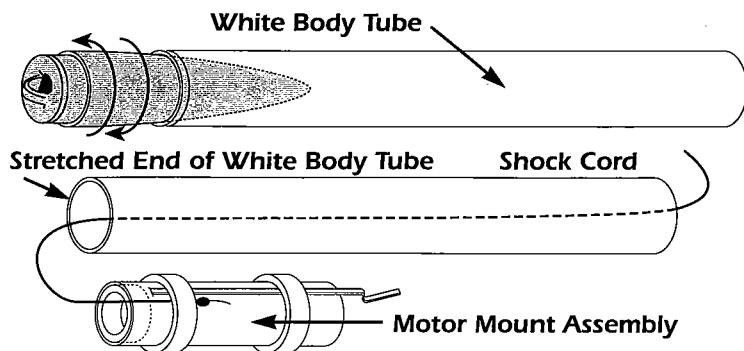
NOTE: THIS IS A VERY IMPORTANT STEP. IF YOU TIE A DIFFERENT TYPE OF KNOT THE SHOCK CORDS MAY SEPARATE DURING FLIGHT.

STEP 8

A. Stretch one end of the Body Tube slightly by inserting the nose cone into the tube and gently twisting it back and forth a few times.

B. Hold the Body Tube with the stretched end facing up and "feed" the shock cord into the tube until the cord comes out the other end.

C. Grab the end of the shock cord and pull it all the way through the tube until the Motor Mount assembly that is attached to the other end pulls up against the tube.

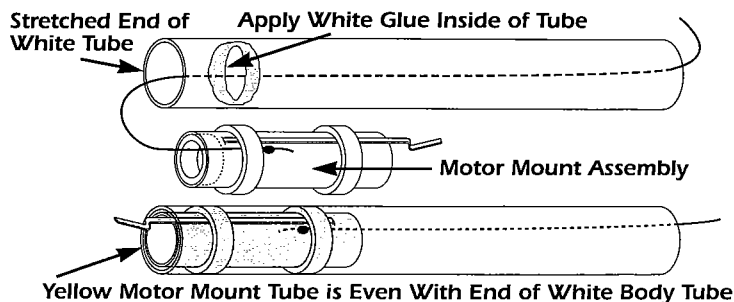


STEP 9

A. Hold the Motor Mount Assembly and the Body Tube in one hand.

B. Apply White Glue around the inside of the Body Tube.

C. Immediately insert the Motor Mount Assembly and PUSH IT INTO THE BODY TUBE WITH ONE FAST & SMOOTH MOTION until the Yellow Motor Mount Tube is even with the end of the Body Tube

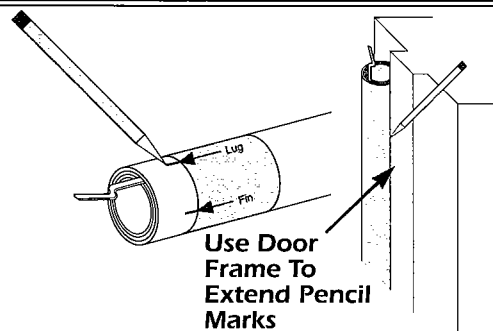


STEP 10

A. Cut out the tube marking guide from the front page of the instruction sheet

B. Wrap the tube marking guide around the body tube. Align the arrow that is marked "Launch Lug" with the motor clip. Mark the body tube at each of the arrows with a pencil..

C. Use a door frame as a guide and extend each of the pencil marks 6 inches up from the rear of the body tube.

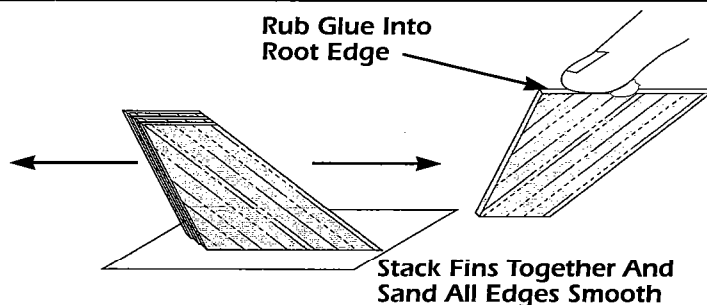


STEP 11

A. Carefully remove each of the three die-cut balsa fins from the sheet with a sharp hobby knife.

B. Stack the fins together and sand all edges smooth.

C. Rub a small line of white glue into the root edge of each fin and set aside to dry.

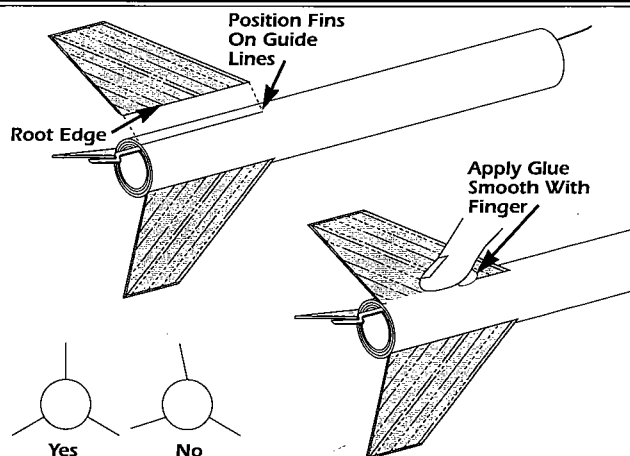


STEP 12

A. Apply a small line of white glue along the root edge of a fin and position it along one of the fin lines on the body tube. Adjust the fin so that it projects straight away from the body tube as shown. Allow the glue to set for a few minutes before attempting to glue on the remaining fins. Repeat this step for the remaining two fins.

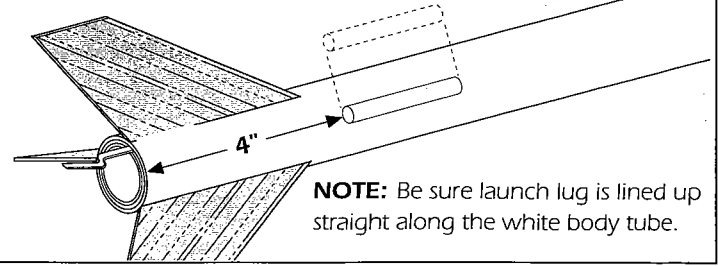
B. After the glue is completely dry apply a small bead of white glue to both sides of a fin-body tube joint. Smooth out the glue with your finger. Wipe excess glue off your finger onto a tissue or paper towel.

C. Repeat the above step for the remaining fin-body tube joints. Set aside to dry.



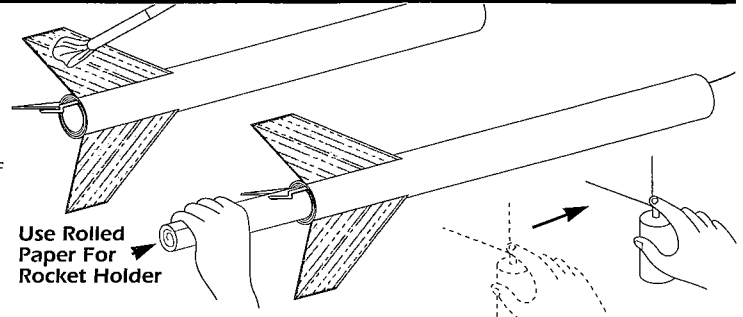
STEP 13

- Make a pencil mark on the launch lug line 4 inches from the rear of the rocket as shown.
- Apply white glue to the launch lug and place along the pencil line with one end even with the mark 4 inches from the rear of the rocket as shown.



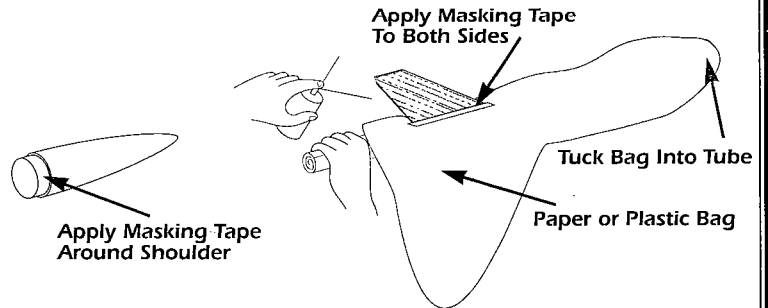
STEP 14

- After all the glue is completely dry apply a coat of sanding sealer to each fin. When sealer is dry, lightly sand each fin.
- Repeat the sealing and sanding process until the surface of each fin is smooth.
- Paint the entire rocket body and fins with gloss white spray enamel. Follow instructions on the spray can for best results.



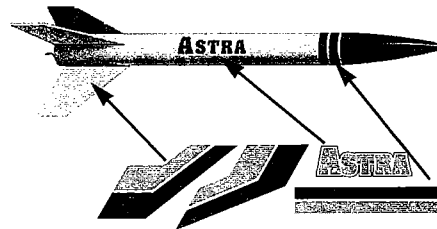
STEP 15

- Wrap a layer of masking tape all the way around the shoulder of the nose cone. Spray paint the nose cone with several light coats of gloss blue paint.
- Apply masking tape around both sides of one body tube-fin joint. Protect the rest of the rocket with a plastic or paper bag. Spray paint one fin with several light coats of gloss blue paint. Carefully remove the masking tape after paint is dry.



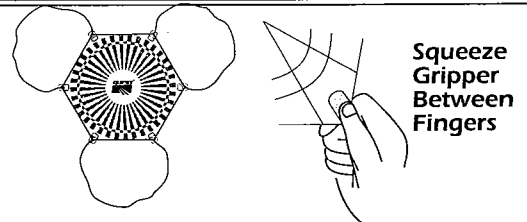
STEP 16

- When all paint is dry, apply the self-adhesive decals as shown on the kit panel.
- NOTE: Use caution when removing the decal from the backing to prevent decal from curling over onto itself.



STEP 17

- Assemble the parachute according to the instructions printed on it.
- Firmly squeeze the gripper tab and parachute between your fingers.



STEP 18

- Pass the shroud line loops through the eyelet on the nose cone. Pass parachute through loop ends and pull lines tightly against the eyelet.
- Use two overhand knots to tie the loose end of the shock cord onto the base of the nose cone.

