

photon-probe



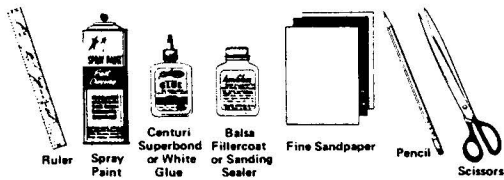
FUTURISTIC DEEP SPACE CRUISER!

Catalog No. KD-16

The PHOTON-PROBE is a handsome model rocket design inspired by imaginary rockets of the future! The unusual fin antennas, photon reactor coolant vanes and generous decal sheet make this a great display model, as well as a high-flyer! Assembly is more challenging than most other Stellar kits, so follow the instructions carefully! Use B4-4 engines for first test flights.

This rocket is designed to be launched only from standard remote-controlled electrical launch systems. Always use the recommended engines and recovery wadding. Check with local authorities for possible restrictions before launching model rockets in your community.

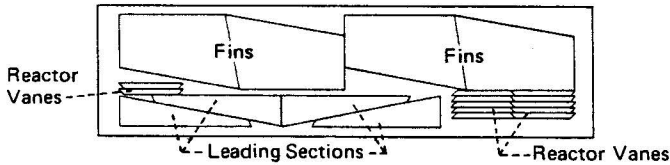
TOOLS: You will need the following tools to assemble and finish this kit. DO NOT use model airplane glue for building flying model rockets.



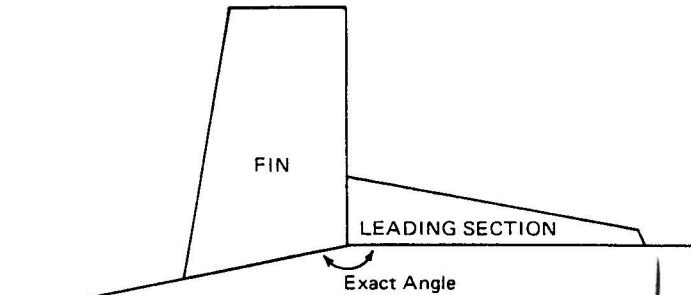
ASSEMBLY INSTRUCTIONS

SET THE EXPLODED VIEW NEAR YOU TO REFER TO WHILE ASSEMBLING THE PHOTON PROBE.

- Carefully push the die-cut parts from their sheet. Start at one point on the fin and work gently around. While assembling, test fit balsa pieces and square up edges on fine sandpaper, to insure good joints.



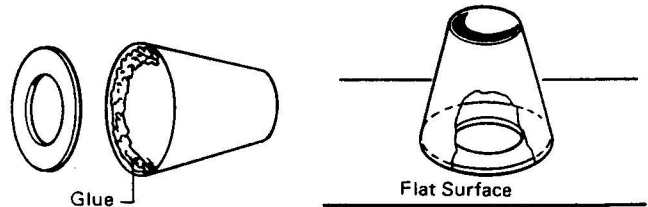
- Glue each leading section to its fin, on a flat surface. Line up pieces with angle shown. Wax paper is ideal for keeping pieces from sticking to table top. Allow to dry before sanding.



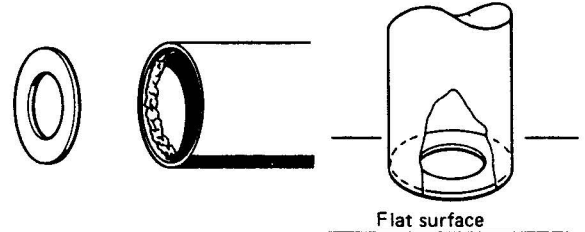
- To assemble a paper reducer (shiny side out), pre-curl the paper by gently pulling up from under a ruler on a clean, flat surface. Note the little tick marks on one end for aligning overlap. Form into a cone and apply glue opposite the overlap area. Line up the edge of the paper with the tick marks exactly and press together on a flat surface. Wipe away excess glue.



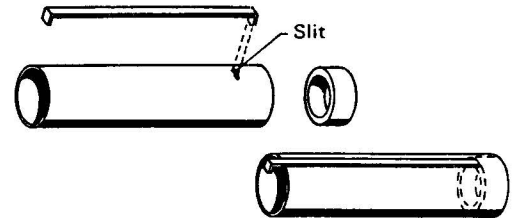
- Apply a bead of glue around the inside rim of the reducer and carefully snap over centering disc laid on flat surface. Repeat steps for second reducer.



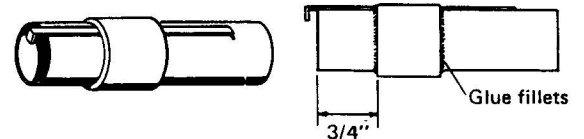
- Smooth inside edges of reactor tube with thumbnail. Apply bead of glue around inside edge of tube and snap over centering disc on flat surface. Repeat with other end.



- Slip one end of the engine lock into the engine tube slit. Run a bead of glue around the inside of the engine tube and insert thrust ring until it butts against the engine lock.

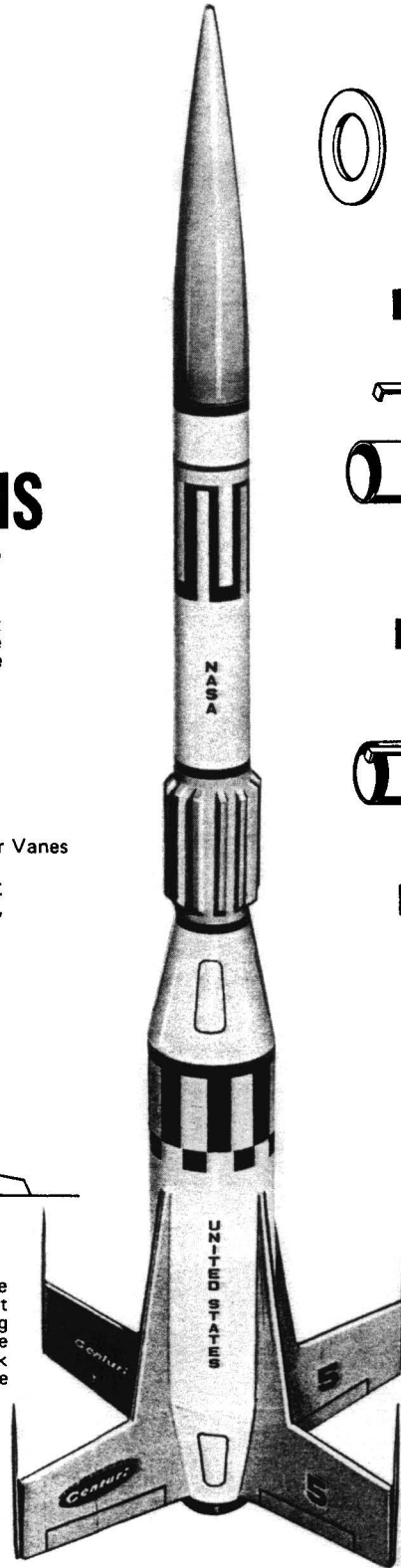
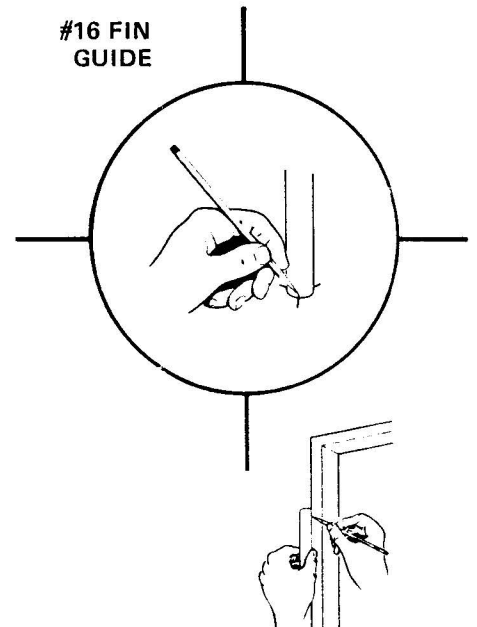


- Slide the centering ring to position shown. Apply generous beads of glue around each end of the ring and smooth into "fillets" with your finger. Be sure engine lock is parallel with tube.

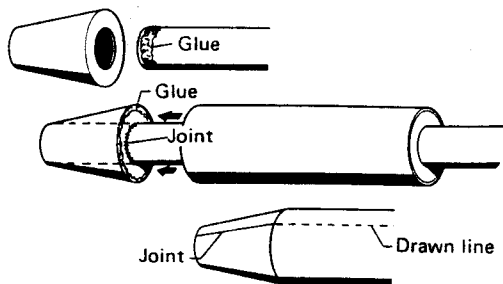


- Stand reactor tube on the fin guide to mark fin locations. Find a convenient channel or groove, such as a door jamb, partially open drawer, or molding. Extend the marks the full length of the tube.

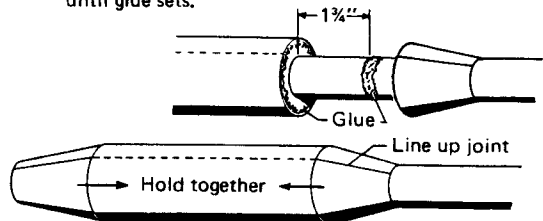
#16 FIN GUIDE



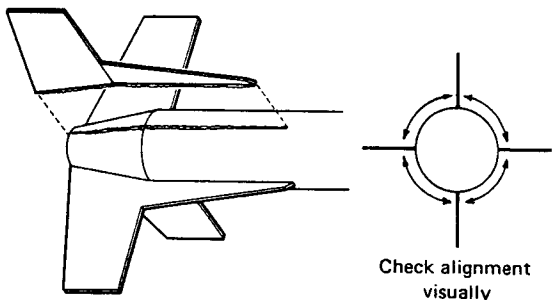
9 Run a bead of glue along one end of the core tube and slide a reducer over the tube, making bottom of tube and reducer flush. Run a bead of glue around disc and tube joint. Coat disc with glue. Slide reactor tube in place, lining adapter joint with a drawn line.



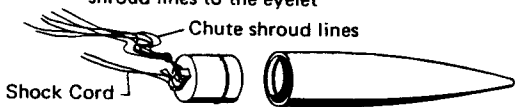
10 Coat face of reactor tube disc with glue and run bead around tube 1-3/4" from disc. Slide remaining reducer into place, wipe away excess glue. Hold assembly together until glue sets.



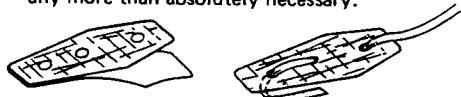
11 One at a time, apply glue to the root edges of the fins. Press in place on the drawn lines. Remove the fin. Repeat with remaining fins. Apply fresh glue to each fin and re-position on the body. Stand assembly upright to dry.



12 Push the plastic insert base into the plastic nose cone until it snaps in place. (Be careful not to break the cone.) Pass one end of the shock cord through the eyelet and tie with a firm knot. Tie the assembled parachute's shroud lines to the eyelet



13 Peel the backing from the shock cord fastener. Thread the other end of the elastic shock cord through the fastener as shown. Take care not to touch the adhesive backing any more than absolutely necessary.

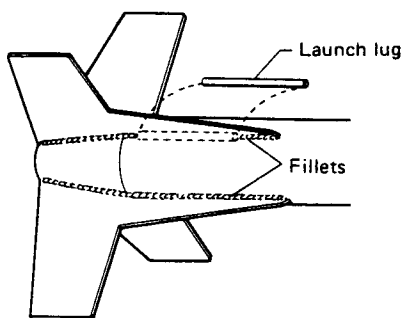


Press end of shock cord against adhesive back of fastener

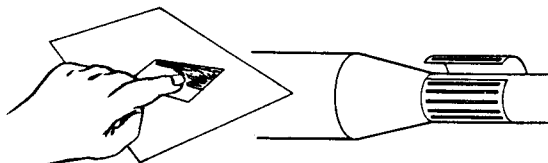
14 Slightly crease the fastener lengthwise to allow easy insertion 1" past the top of the body tube. Press firmly against the inside wall of the tube with a finger or eraser end of a pencil. NOTE: All edges of the fastener must be firmly contacted to the tube to insure a permanent bond.



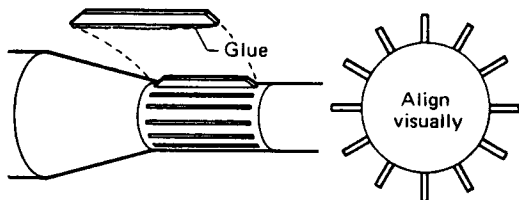
15 IMPORTANT: Run a bead of glue along both sides of all fin-body tube joints. Using your finger, smooth the glue into even fillets. Glue launch lug against one fin. Check fin alignment again, and allow to dry, without letting glue run.



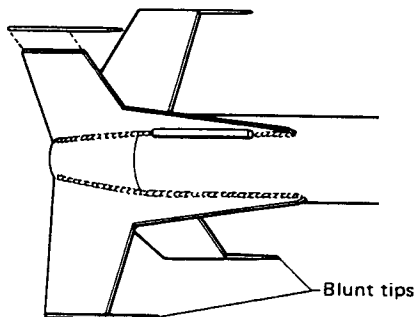
16 Carefully cut reactor vane guide from exploded view sheet. Lay it face down on scrap paper and smear entire backside with thin layer of glue. Carefully wrap around core tube, smoothing out all wrinkles.



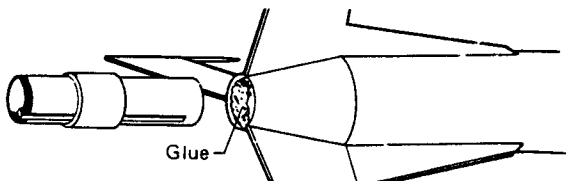
17 Put bead of glue on long edge of one reactor vane and position on guide. Repeat with remaining vanes, taking care to align neatly.



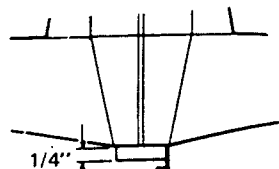
18 Blunt the ends of the fin antennas to provide a safety factor when handling the rocket. Lightly sand the tips round. Glue in place with each antenna projecting up from each fin.



19 Apply a very generous bead of glue all around the inside of the core tube. Insert engine mount with a firm, turning motion, until only 1/4" of engine tube protrudes.

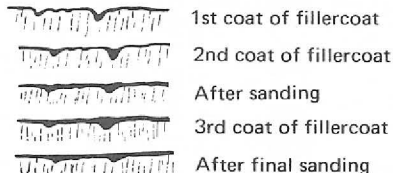


NOTE: REFER TO REVERSE OF EXPLODED VIEW FOR FINAL STEPS!



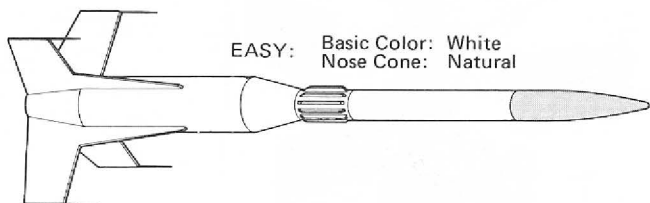
Your model will look and perform better if the wood grain is eliminated before painting. Apply fillercoat or sanding sealer, allow to dry, and sand with fine sandpaper. Repeat until wood surface is smooth.

CROSS SECTIONS OF WOOD SURFACE

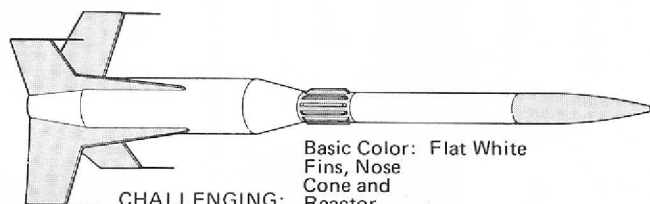


For best results, first spray with an enamel primer. Never use dope or lacquer on plastic parts! Mask off areas with masking tape and paper, for a neat job.

SUGGESTED COLOR SCHEMES

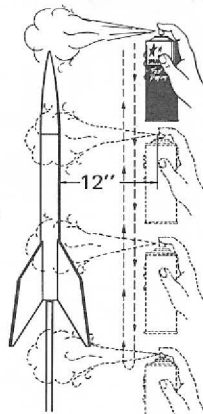


EASY: Basic Color: White
Nose Cone: Natural



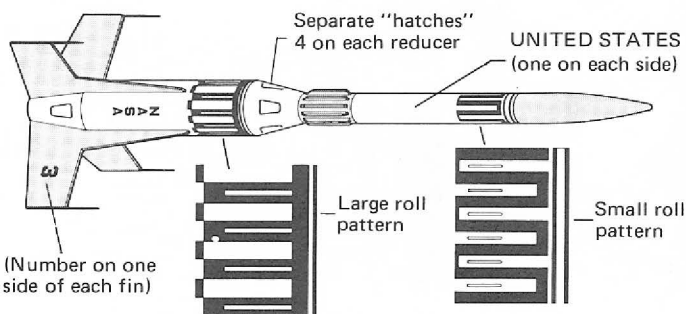
CHALLENGING: Basic Color: Flat White
Fins, Nose Cone and Reactor
Vanes: Fluorescent Red-Orange
Fin
Antennas: Black

Spray painting your finished model with a fast-drying enamel will produce the best results . . . IF IT IS DONE PROPERLY!!! Most important is the number of coats of paint. DO NOT try to paint your model with one heavy coat! Instead, give it a couple of quick, light coats first, then a finish coat. Let each dry before applying the next.



SPRAYING A TYPICAL MODEL ROCKET

Apply the decals, one at a time, according to instructions printed on the decal backing paper. Refer also to the package illustration for placement. NOTE: Additional detail may be added with narrow colored tape.



ENGINES:

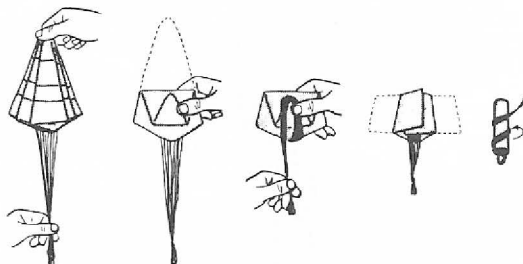
Igniters and complete engine installation instructions are included in "Engine Operating Instructions" which accompany all Stellar engines.

The PHOTON-PROBE can be launched with the following engines:

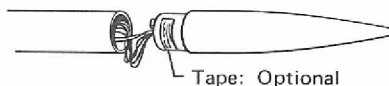
- B4-4 MEDIUM ALTITUDE — for first test flights and medium size launch areas.
- C6-5 HIGH ALTITUDE — for high flights and large launch areas.

FLIGHT PREPPING:

1. Inspect shock cord fastener for firm bond.
2. Insert Flameproof Parachute Wadding according to its directions.
3. Tuck in shock cord.
4. Roll chute tightly as shown, and insert.
5. Socket nose cone in place.



Cone fit: Snug, but not too tight.

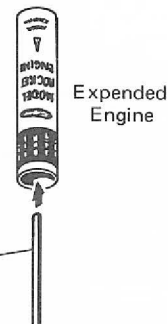


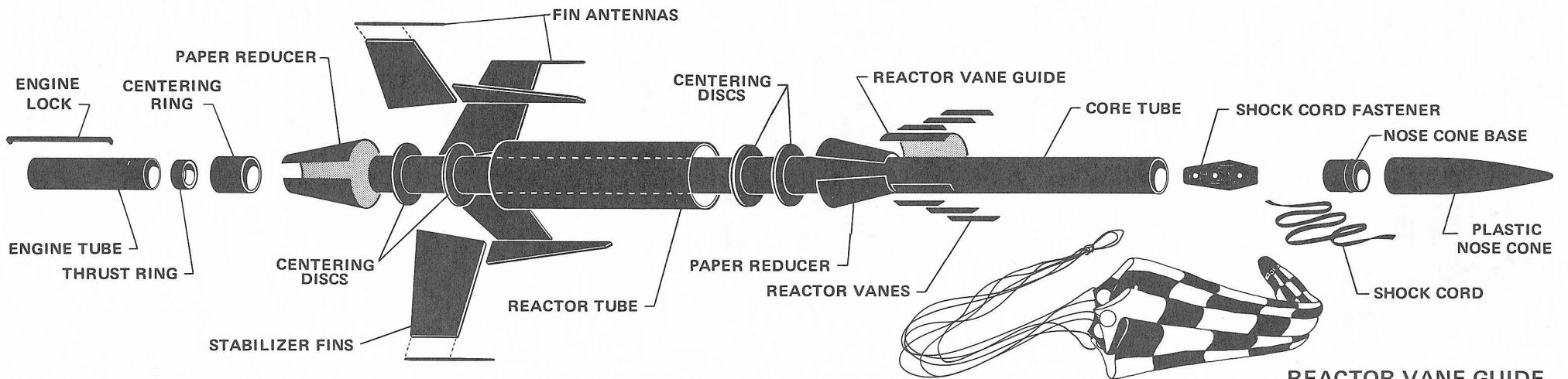
Carefully prepare and check all parts of your rocket before each flight.

Launch the PHOTON-PROBE from any standard model rocket launcher having a 1/8" diameter x 36" long steel launch rod.

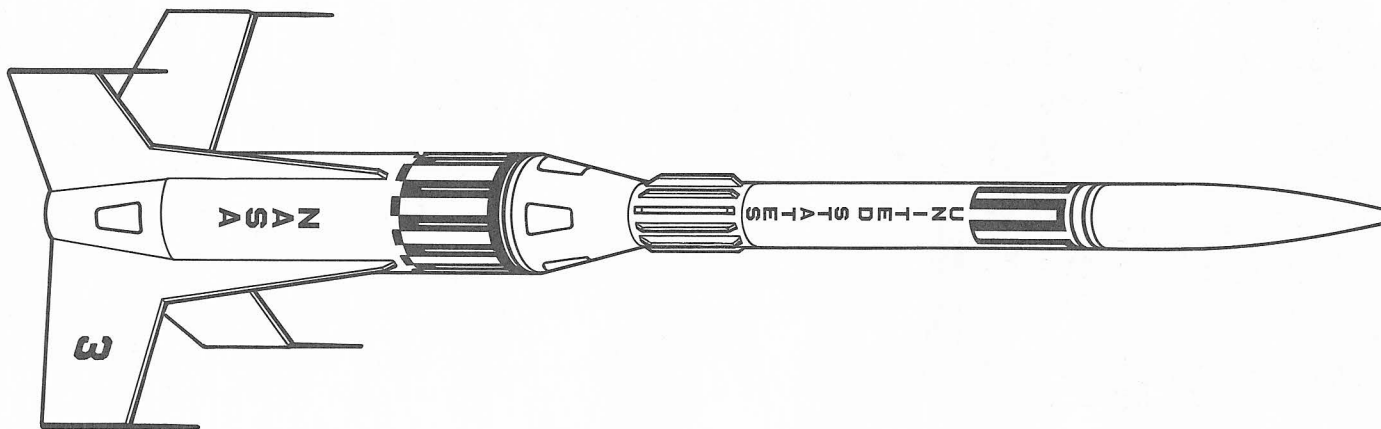
Do not leave the rocket sitting in the sun for long periods as this may soften the adhesives.

Referring to the specific instructions which accompany STELLAR launchers and firing panels, mount the rocket on the launcher and prepare for ignition. Avoid eye injury by capping the exposed tip of the launch rod when not actually launching! Follow instructions and the Safety Code, and have many happy hours with Model Rocketry.





ADULT SUPERVISION IS RECOMMENDED WHEN FLYING MODEL ROCKETS.



REACTOR VANE GUIDE
Cut out along outside solid line

