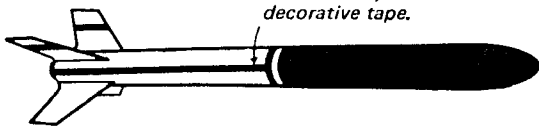




CHALLENGING:

Same colors, but add decorative tape.



CENTURION

CATALOG NO. KC-2

Allow the paint to dry. Apply the decals, one at a time, according to the instructions printed on the decal backing paper.

ENGINE:

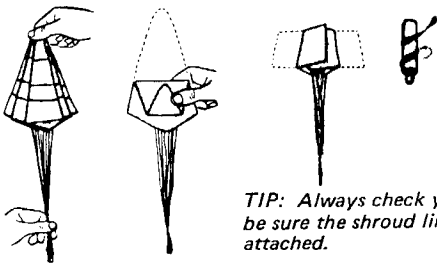
Igniters and complete engine installation instructions are included in "Engine Operating Instructions" which accompany all Centuri Engines.

The CENTURION can be launched with the following engines:

ENGINE	APPROXIMATE ALTITUDE	PURPOSE
A5-2	100 ft.	Only for very light Centurions, without many heavy coats of paint.
B4-2	225 ft.	Low altitude - for test flights and small launch areas.
C6-5	550 ft.	High altitude - for large launch areas.

FLIGHT PREPPING:

1. Prep a recommended engine with igniter, and insert it, securing with engine lock.
2. Inspect shock cord fastener for firm bond.
3. Flameproof chute wadding is not required, but you may want to use just a little . . . because sometimes a particular engine may have an unusually strong ejection charge which could slightly melt your chute.
4. Check the shock cord fastener for a firm bond . . . rub down if necessary.
5. Roll chute neatly as shown, and insert.



TIP: Always check your chute to be sure the shroud lines are firmly attached.

6. Socket nose cone in place.

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

Launch the CENTURION from any standard model rocket launcher having a 1/8" diameter x 36" 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 CENTURI 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!



Expended Engine

Launch Rod

The CENTURION is about the easiest-to-assemble of our larger rockets. It's large size is ideal for demonstration and "slow" majestic lift-offs.

This rocket features "Baffle Ejection" (U.S. Patent No. 3,719,145) which virtually eliminates the need for chute wadding. The specially designed baffle assembly allows the engine's hot ejection gases to churn and cool slightly, before pushing out the parachute.

This rocket is designed to be launched only from standard remote-controlled electrical launch systems. Always use the recommended engines and recovery wadding. Comply with all Federal, State and local laws.



MODEL ROCKETEER'S SAFETY CODE

CONSTRUCTION

My model rockets will be made of only lightweight materials such as paper, wood, plastic, and thin metallic foils, with the exception of payloads and engine holders made of wirelike material.

ENGINES

I will use only pre-loaded factory made model rocket engines in the manner recommended by the manufacturer. I will not change in any way nor attempt to reload these engines.

RECOVERY

I will always use a recovery system in my model rockets that will return them safely to the ground so that they may be flown again.

WEIGHT LIMITS

My model rocket will weigh no more than 453 grams (16 oz.) at liftoff, and the engines will contain no more than 113 (4 oz.) of propellant, as prescribed by Federal Regulations.

STABILITY

I will check the stability of my model rockets before their first flight except when launching models of already proven stability.

LAUNCHING SYSTEM

The system I use to launch my rockets will be remotely controlled and electrically operated, and will contain a switch that will return to "off" when released. I will remain at least 10 feet away from any rocket that is being launched.

LAUNCH SAFETY

I will not let anyone approach a model rocket on a launcher until I have made sure that either the safety interlock key has been removed or the battery has been disconnected from my launcher.

LAUNCH AREA

My model rockets will always be launched from a cleared area, free of any easy-to-burn materials, and I will only use non-flammable recovery wadding in my rockets.

BLAST DEFLECTOR

My launcher will have a blast deflector device to prevent the engine exhaust from hitting the ground directly.

LAUNCH ROD

To prevent accidental eye injury I will always place the launcher so the end of the rod is above eye level or cap the end of the rod with my hand when approaching it. I will never place my head or body over the launching rod. When my launcher is not in use I will always store it so that the launch rod is not in an upright position.

POWER LINES

I will never attempt to recover my rocket from a power line or other dangerous places.

LAUNCH TARGETS AND ANGLE

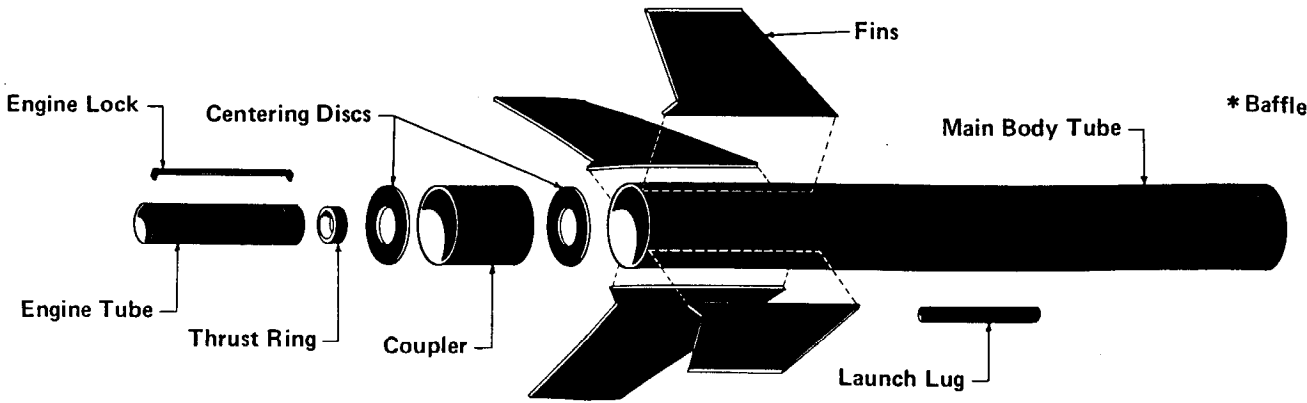
I will not launch rockets so their flight path will carry them against targets on the ground, and will never use an explosive warhead nor a payload that is intended to be flammable. My launching device will always be pointed within 30 degrees of vertical.

PRE-LAUNCH TEST

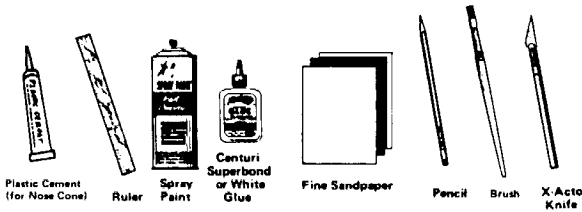
When conducting research activities with unproven designs or methods, I will, when possible, determine their reliability through pre-launch tests. I will conduct launchings of unproven designs in complete isolation from persons not participating in the actual launching.

FLYING CONDITIONS

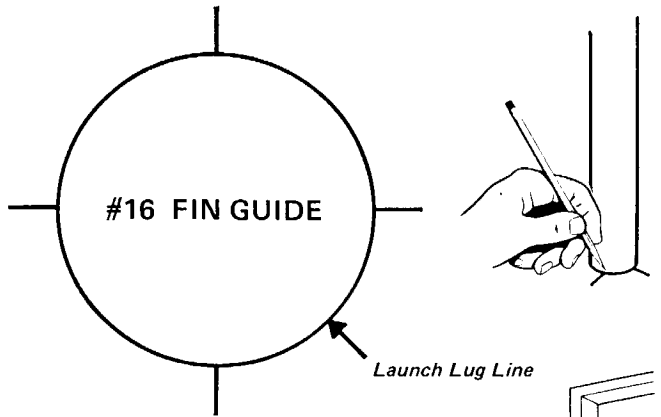
I will not launch my model rocket in high winds, near buildings, power lines, tall trees, low flying aircraft or under any conditions which might be dangerous to people or property.



TOOLS: In addition to the parts supplied, you will need the following standard model rocket tools to assemble and finish this kit. **DO NOT** use model airplane glue for building flying model rockets.

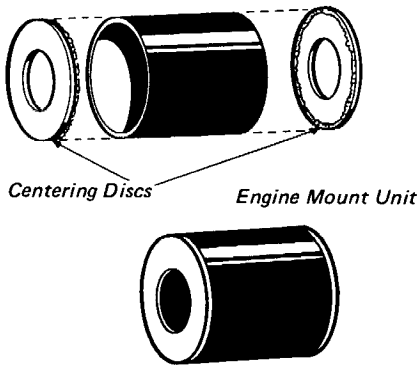


3 While you are waiting for the units to dry, draw guide lines for neatly gluing on fins: Stand the long main body tube upright on its fin guide and mark each position on the tube.

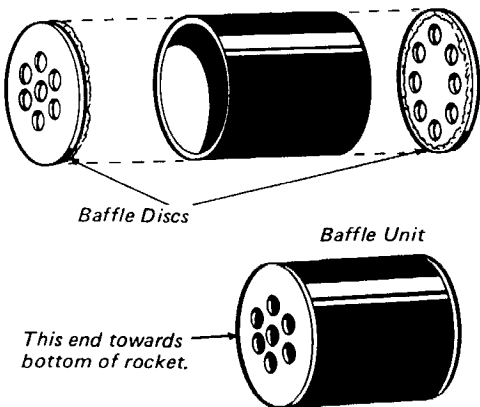


ASSEMBLY INSTRUCTIONS

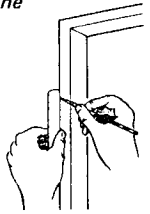
1 To start the engine mount, glue the centering discs onto one coupler. Center the rings neatly and hold until glue starts to set.



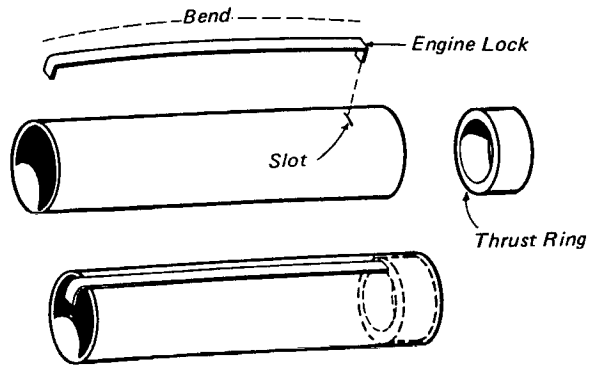
2 Glue the baffle-ejection discs onto the other coupler to make the baffle unit.



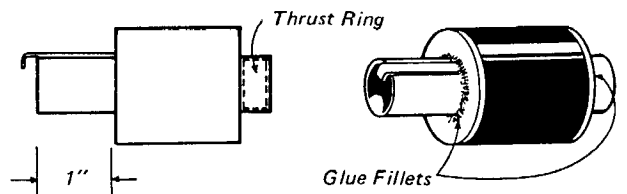
4 Find a convenient groove or channel, such as a door jamb or partially open drawer. Extend the marks into straight guide lines the length of the tube.

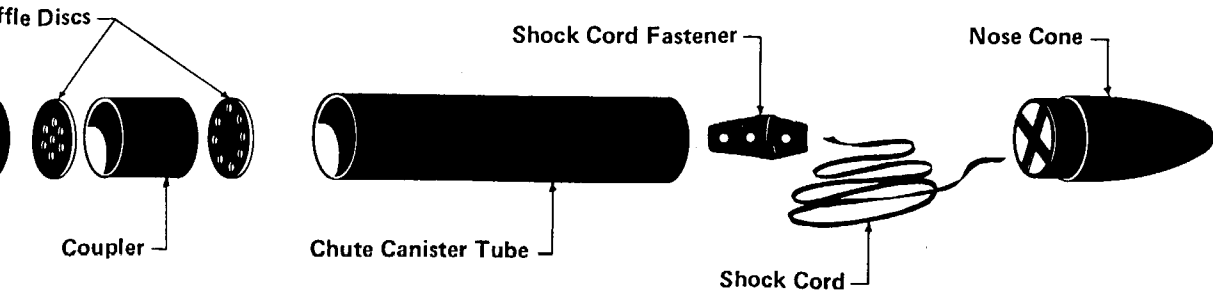


5 Bend the engine lock slightly and place one end in the pre-cut slot of the 3" engine tube. Apply a bead of glue around the inside of that end. Insert the thrust ring until it butts against the engine lock.

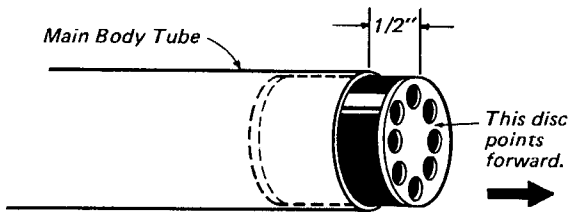


6 Slide the engine tube into the mount unit as shown, and secure it with glue "fillets." Allow to dry.

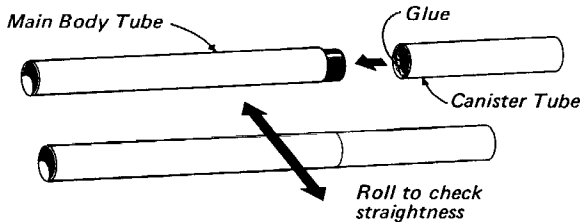




7 Sand the edges of the baffle unit to allow it to be easily inserted into the body tube. Apply a generous glue bead around the inside of the (long) main body tube and slide the baffle unit down into it, until $\frac{1}{2}$ " protrudes.

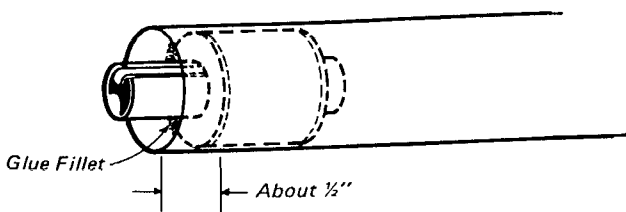
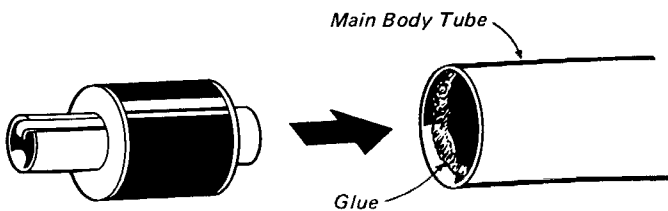


8 When this assembly dries, apply a bead of glue into the chute canister tube and slide it into position over the $\frac{1}{2}$ " of the baffle. Roll the body across a flat surface to be sure the tubes are glued together straight.

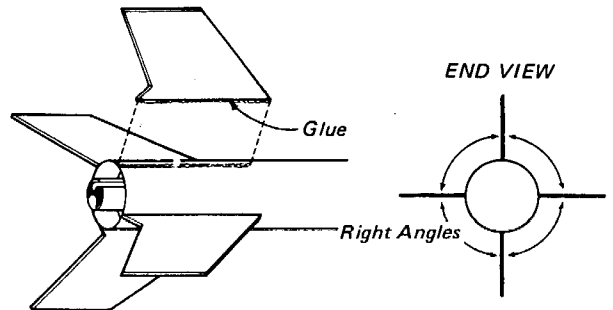


TIP: If you wish to paint the canister section a different color, this last step can be delayed until after painting.

9 Sand the edges of the engine mount's discs. Apply a generous glue bead around the inside back end of the body. Insert the engine mount until its rear disc is about $\frac{1}{2}$ " into the tube. Apply a glue "fillet" to secure it.



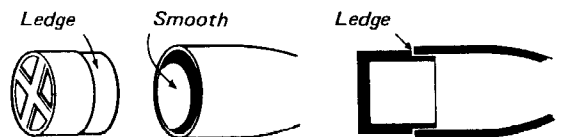
10 Remove the pre-cut fins from their sheets carefully, and square-up the edges with sandpaper. One at a time, apply glue to the root edges of the fins. Press in place on the drawn lines. Remove the fin. Repeat with remaining fins. Apply fresh glue to each fin and re-position on the body. Check fin alignment and allow assembly to dry, standing upside down.



11 This kit contains a plastic nose cone for the forward end of your rocket. While a few other kits still use balsa cones, plastic is now the preferred choice of many rocketeers. It requires no sanding, sealing or painting to have a smooth attractive finish. Plastic is also more durable than balsa . . . it does not dent or "crunch" as easily.

Your nose cone will be assembled from two parts: the cone itself, and an insert which firmly attaches to the cone, holding it inside the body tube.

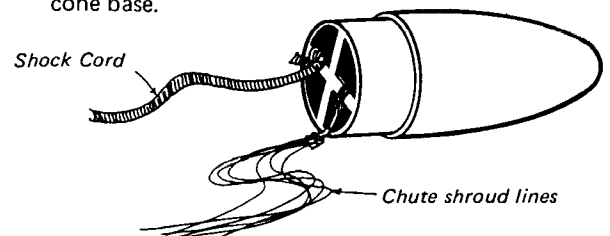
The parts are assembled by gluing together with PLASTIC MODEL CEMENT (available wherever plastic model kits are sold). The ridge or ledge on the insert butts up against the base of the cone.



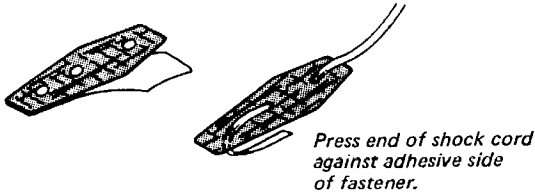
For best appearance, trim away any plastic "flash" that may be on your insert.

Rub the cone briskly with a soft cloth to remove manufacturing oils, and produce a shiny finish.

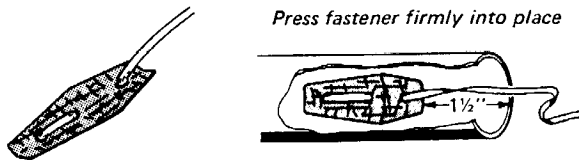
12 Tie the assembled chute's shroud lines and one end of the shock cord firmly around crossbars in the nose cone base.



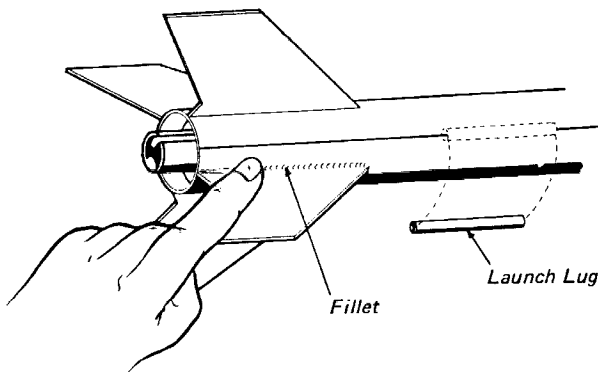
- 13** Peel the backing from the shock cord fastener. Thread the other end of the elastic shock cord through the fastener as shown. Take care not to touch the adhesive backing any more than absolutely necessary. Slightly crease the fastener length-wise to allow easy insertion into tube.



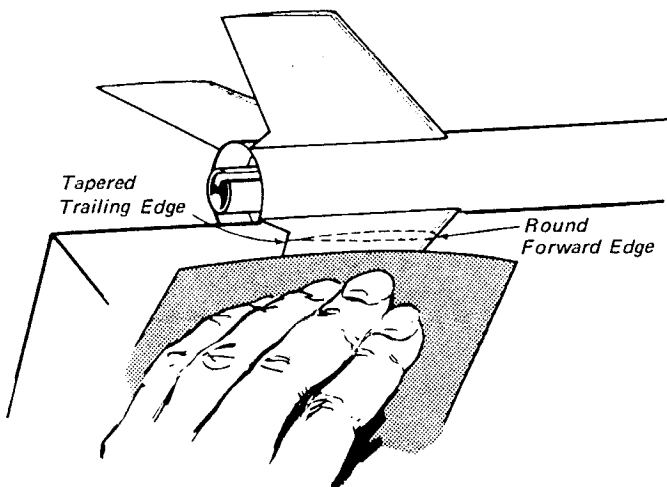
- 14** Insert the fastener 1-1/2" past the top of the canister tube. Press firmly against the inside wall of the tube with a finger or easer end of a pencil. NOTE: All edges of the fastener must be firmly contacted to the tube to insure a permanent bond.



- 15** After the fin assembly has completely dried, run a bead of glue along both sides of each fin-body tube joint. Using your fore-finger, smooth the glue into even fillets. Glue the launch lug onto the body, along its drawn line. Allow glue to dry before handling rocket.

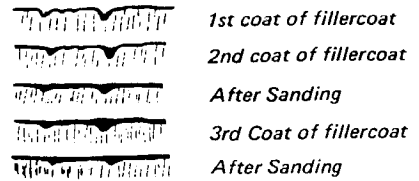


- 16** Sand each fin to a "teardrop" air foil for best performance . . . resting the fin on the edge of your work table is the easiest way.



- 17** FOR BEST APPEARANCE: Paint the fins with balsa fillercoat or sanding sealer and allow to dry. Sand lightly with fine sandpaper. Paint and sand again, repeating the process until all grain is filled.

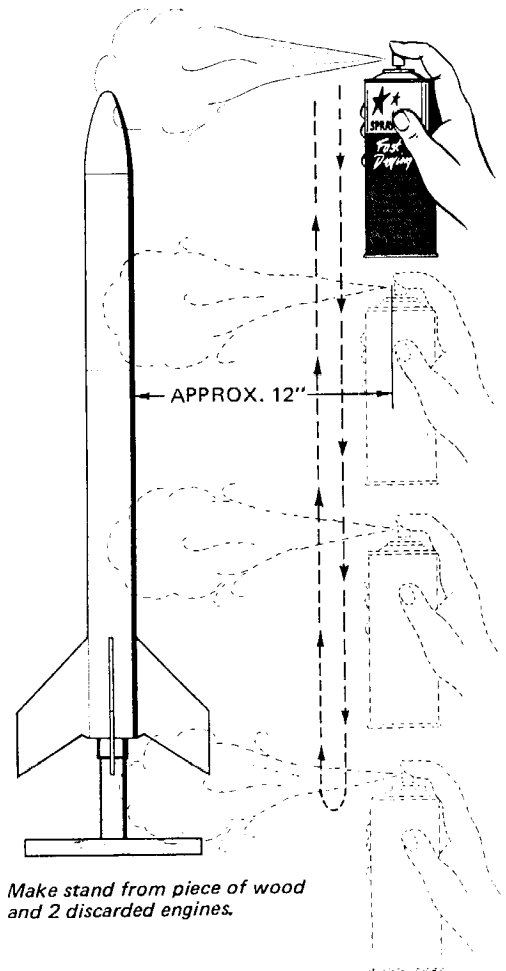
CROSS SECTION OF WOOD SURFACE



- 18** DO NOT try painting your model with one heavy coat! Instead give it a couple of quick, light coats first THEN a finish coat. Let each coat dry before applying the next.

For best painting results, use a spray enamel . . . it is usually easier, faster and better looking than brushed-on "dope" or enamel. Never use "dope" or lacquer to paint plastic parts.

First, spray with an enamel primer. The plastic cone may then be spray painted in place, or removed for painting a separate color. Be sure to choose colors that the decals will show up well against.



19 RECOMMENDED PAINT SCHEME

