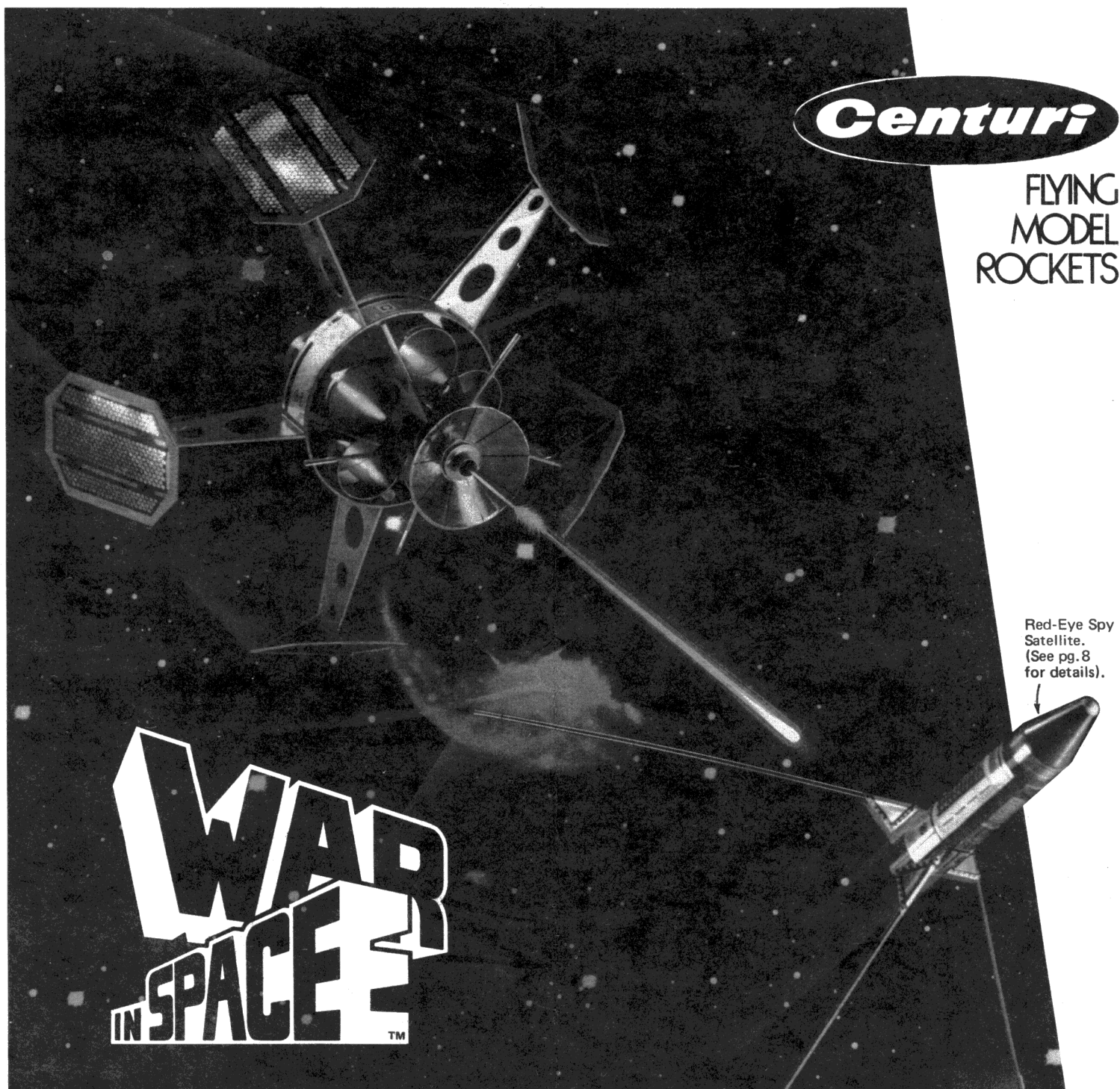




SATELLITE KILLER™ #5345



FLYING
MODEL
ROCKETS



Red-Eye Spy Satellite. (See pg. 8 for details).

WAR IN SPACE™

Satellite Killers will play an important role in any future superpower conflicts. Designed to move close to existing communications and military satellites and destroy them, this offensive capability is important in reducing enemy strike potential.

Today there are thousands of satellites in Earth orbit and only a small percentage perform duties related only to peace-time activities. Both Russia and the United States have strictly military satellites whose function is to keep close photographic surveillance of enemy military activities. In some cases, it is not clear what the functions of Russian military satellites are.

In the event of an enemy attack, satellite killers would be valuable in helping to knock-out enemy communications. Over 70% of all military communications are now handled by special communications satellites, and satellite killers that could destroy this communication network would help to dramatically reduce the

effectiveness of an enemy attack or retaliation. In fact many military experts believe that the use of satellite killers to destroy communications and surveillance satellites would be a precursor to a full-scale enemy attack.

At the present time, the method of attack is simple—the satellite killer moves close to its target and explodes damaging or destroying the target with shrapnel. It is conceivable that in the near future, satellite killers will be equipped with high-powered lasers which would destroy a target satellite and then could be used on other targets. Your Satellite Killer kit is an example of the latter type—a reusable satellite killer.

HOW IT WORKS:

Your Satellite Killer model rocket is designed to fly in a manner similar to other model rockets. First the antenna dish is removed and the model is prepped for flight. Then the electrically ignited engine lifts the Satellite Killer off the launch pad, guiding it into proper flight by the launch rod. The rocket continues coasting to peak altitude while the delay charge burns. Then the ejection charge ignites, pushing the engine mount and the recovery system out the rear of the model. Your Satellite Killer drifts to earth, ready to be prepared for another flight.

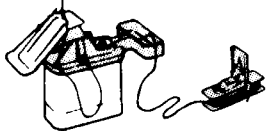
WHAT IT TAKES TO FLY:

You will need engines, igniters, and an electrical launch system to fly your rocket. These supplies are NOT included in individual rocket kits, but are available separately and ARE included in every Centuri Starter Set or Rocket Outfit.



We recommend using Centuri ENERJET engines; each package includes the famous Sure-Shot II igniters, acclaimed as the world's most reliable model rocket igniter.

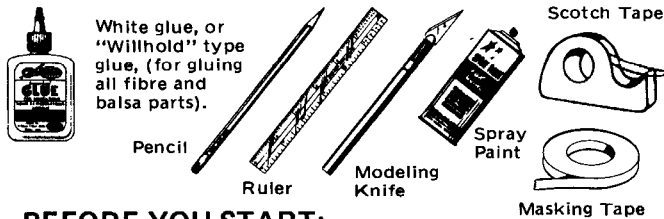
The popular Centuri "Powr-Pad" is an ideal basic launch system; compact, highly portable, reliable, and offering features not found in any other launch system.



Always use standard remote-control electrical ignition and follow the engine recommendations. Be sure to comply with any laws that may apply in your area, for the good of Model Rocketry and your own enjoyment.

TOOLS YOU WILL NEED:

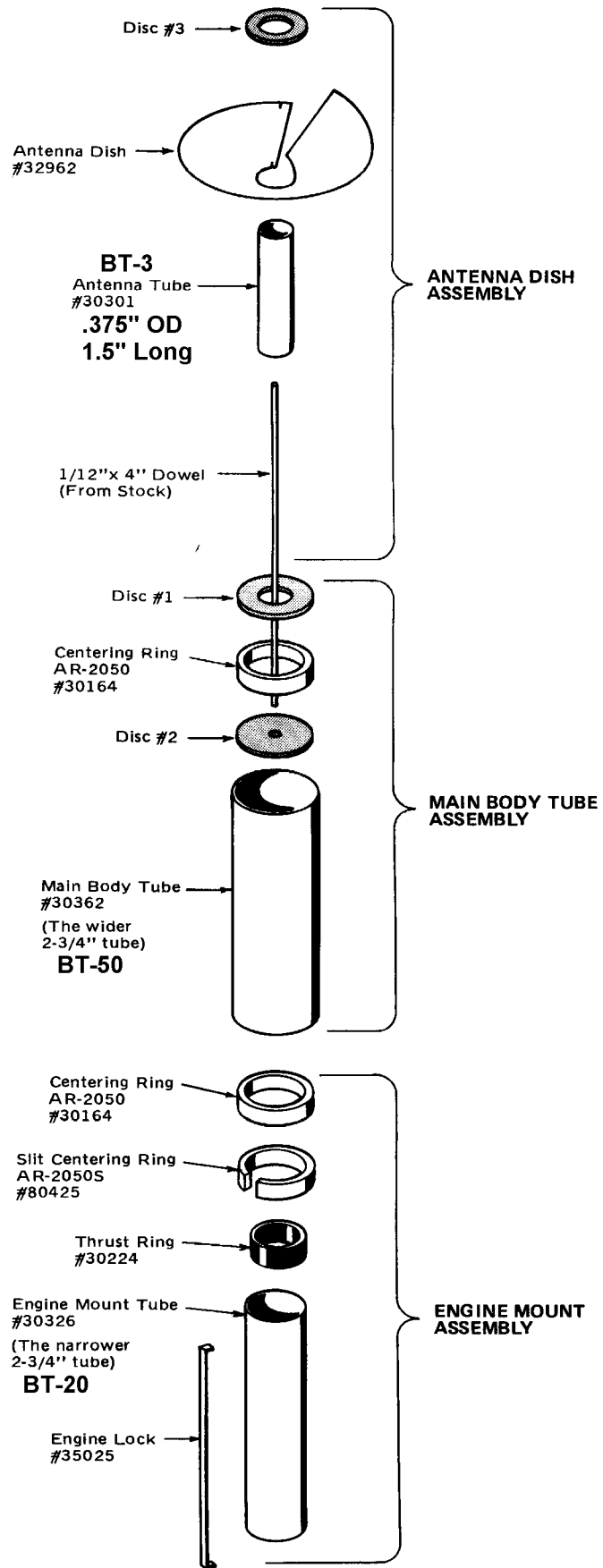
In addition to the parts supplied, you will need the following tools to assemble and finish this kit (DO NOT use model airplane glue for building model rockets).



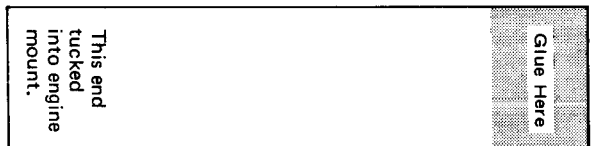
BEFORE YOU START:

If you are new to model rocketry, here are some general tips to get you off to a good start.

- Choose a practical assembly area: well lighted, big enough to work in, and out of the way of relatives or pets who might accidentally mess up your work
- Cover your worktable with plywood or heavy cardboard to protect the table from glue, paint, cut, etc.
- Remove the entire contents of your kit package carefully to avoid losing or damaging small parts. Lay them out neatly and identify each by referring to the "exploded view" drawing in these instructions.
- NOTE: Sometimes certain parts are packed INSIDE of other parts, such as tape discs inside parachutes, decals or couplers inside body tubes, etc.
- Use only white glue or a glue made specifically for porous materials (like Titebond). Use glue sparingly.

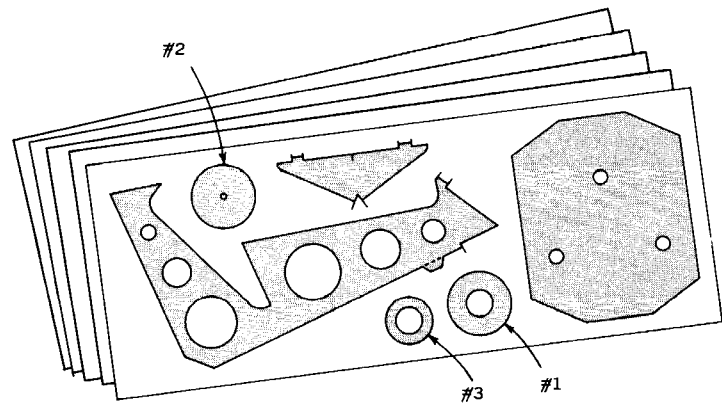
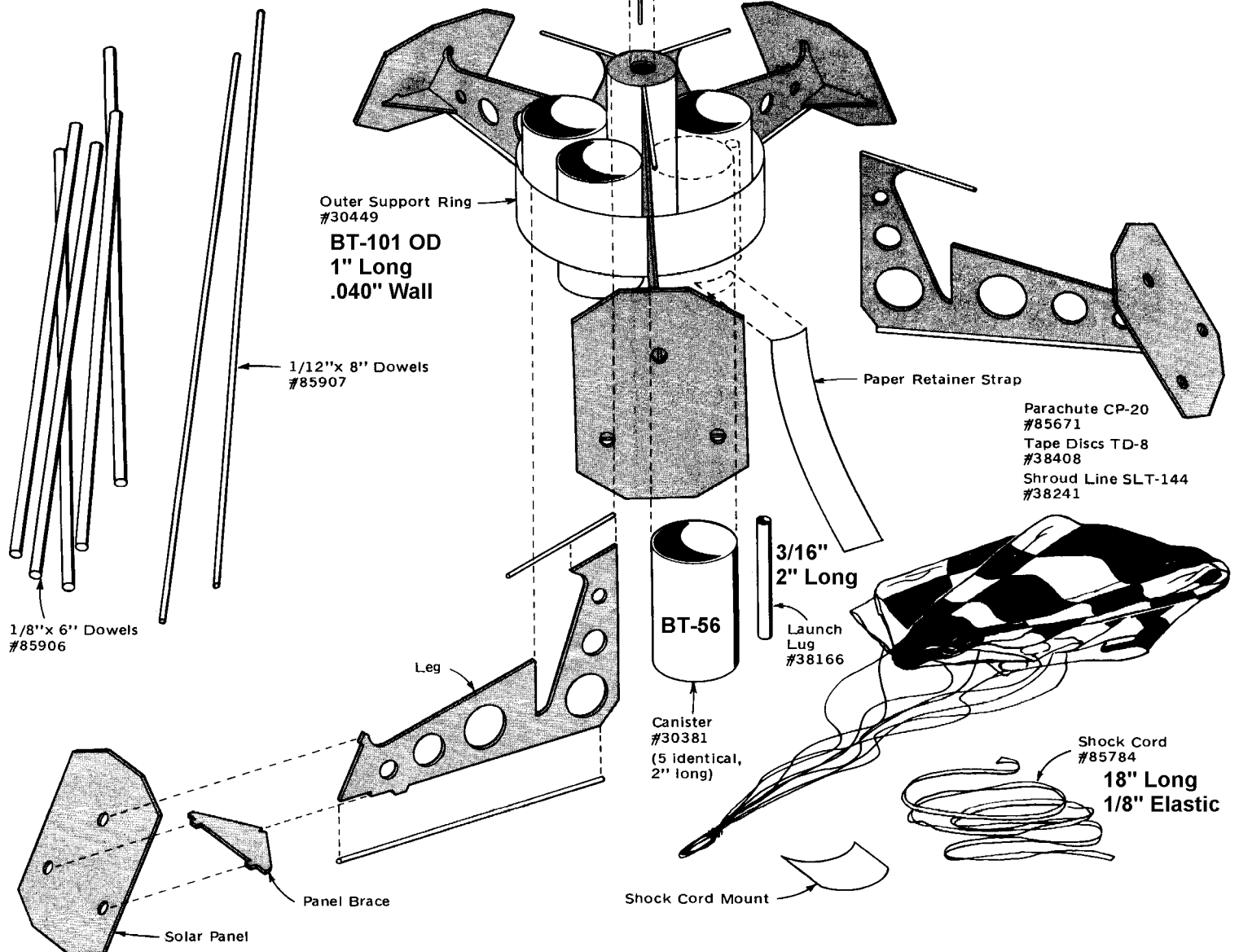


Paper Retainer Strap

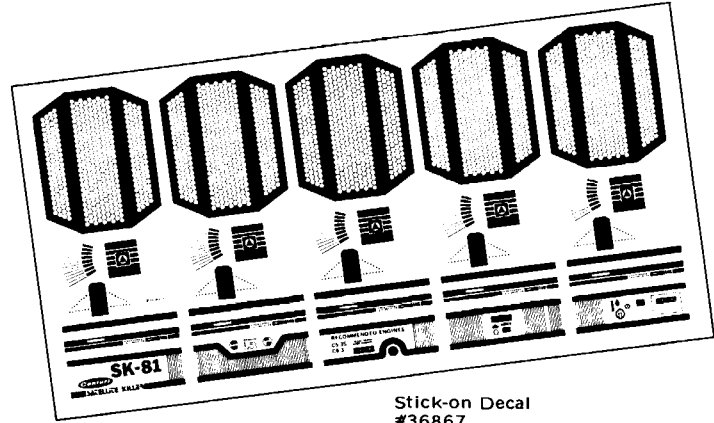


Exploded View

NOTE: The antenna dish is for display purpose only. It "unplugs" and removes easily for flight.



Die-Cut Sheets #32961
.050" Thick White Faced Fiber

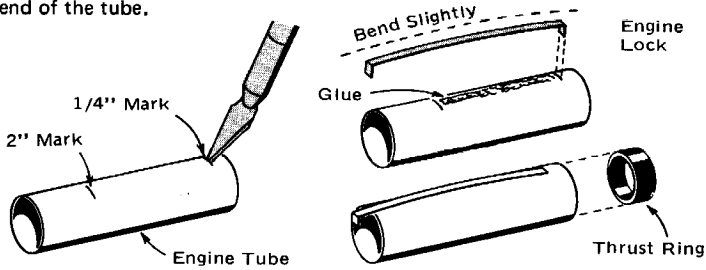


Stick-on Decal #36867
Black & Red on Foil

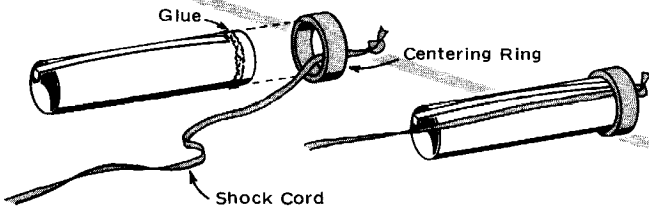
ASSEMBLY INSTRUCTIONS

You **MUST** follow these instructions for satisfactory flights. The shape and placement of the model's parts has been carefully engineered for safe flights. **DO NOT** try to change the design, "customize" it, or leave off any parts.

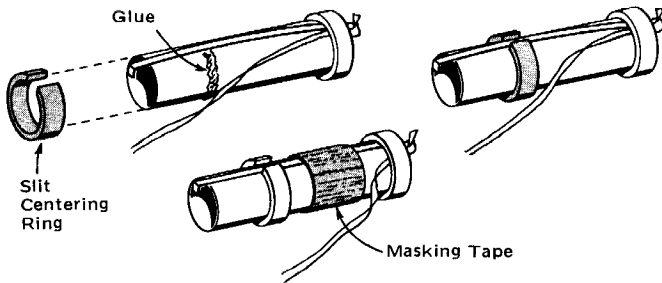
- 1 Mark the engine mount tube 1/4" and 2" from one end. Cut a 1/8" long slit in the tube at the 1/4" mark. Bend the engine lock gently into a slightly curved shape. Apply a line of glue between the two marks. Push one end of the engine lock into the slit as shown. Press the main part of the lock into the glue. Glue the thrust ring into the forward end of the tube. It should be flush with the end of the tube.



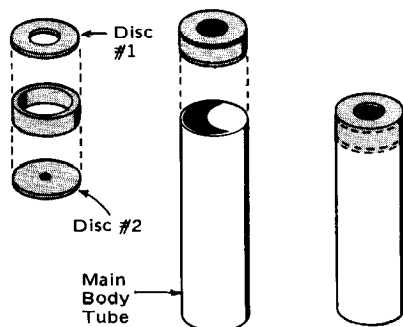
- 2 Locate the shock cord and one of the solid centering rings (AR-2050). Tie a small knot in one end of the shock cord. Apply a line of glue just forward of the engine lock. Align the shock cord next to the engine lock with the knot overhanging the end of the tube. Slide the ring over the shock cord and engine mount tube up to the end of the engine lock. Pull the cord tight so the knot is against the centering ring.



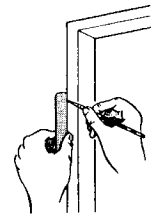
- 3 Locate the slit centering ring (AR-2050S). Apply a line of glue around the engine mount tube just forward of the 2" mark. Align the slit with the engine lock and slide ring onto tube, stopping at glue. Wrap masking tape around the engine tube between the centering rings. This will hold the engine lock in place.



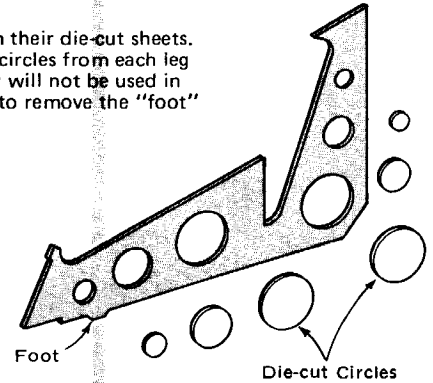
- 4 Locate and remove discs #1 and #2 from one of the die cut sheets. NOTE: All 5 die-cut sheets are the same, only one set of discs will be used in this kit. Remove the center from both discs. Glue disc #1 to the top and disc #2 to the bottom of the remaining centering ring (AR-2050). Locate main body tube. Apply glue along the inside edge of tube. Push the ring/disc assembly you just made into the main body tube until it is flush with end of tube. Important: Make sure disc #1 (large hole) is facing out from the tube.



- 5 Mark the main body tube and the outer support ring using the guide on this page. Find a convenient groove or channel such as a partially open drawer or door jamb and extend the marks down the entire length of both parts.



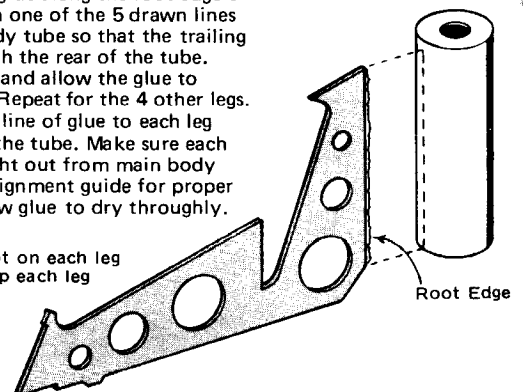
- 6 Remove the 5 legs from their die-cut sheets. Remove all the die-cut circles from each leg and discard them. They will not be used in this kit. Be careful not to remove the "foot" from each leg.



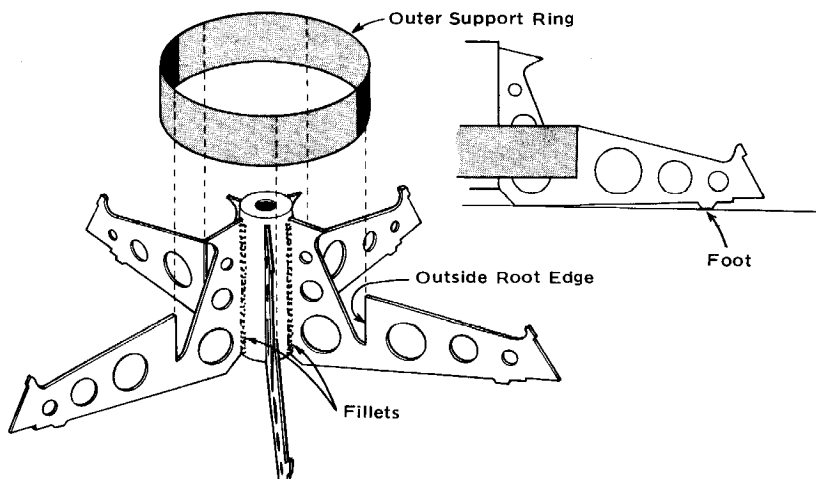
ALIGNMENT GUIDE

- 7 Apply a line of glue along the root edge of a leg. Place it on one of the 5 drawn lines on the main body tube so that the trailing edge is flush with the rear of the tube. Remove the leg and allow the glue to become tacky. Repeat for the 4 other legs. Apply a second line of glue to each leg and replace on the tube. Make sure each leg stands straight out from main body tube. Use the alignment guide for proper alignment. Allow glue to dry thoroughly.

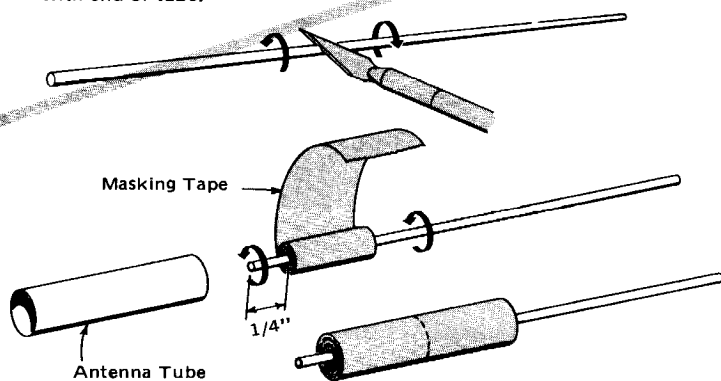
NOTE: The foot on each leg will help to keep each leg in line when resting on a flat surface.



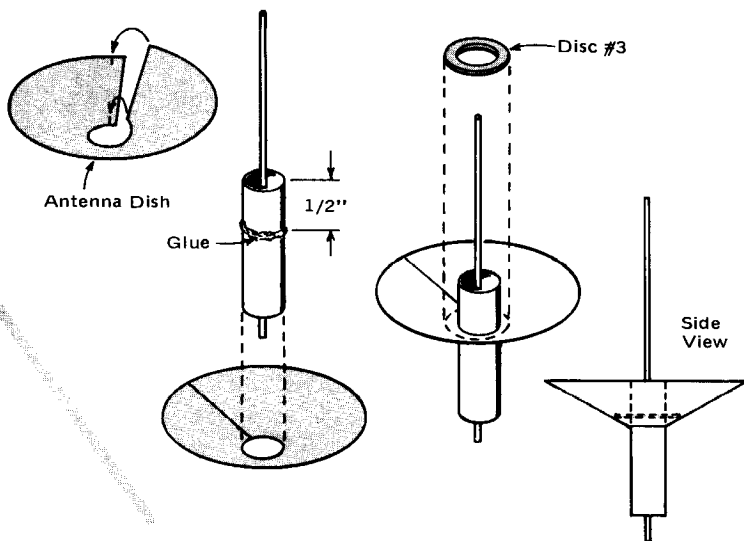
- 8** Apply a glue fillet to each leg/tube joint. Smooth glue with finger and allow to dry. Apply a line of glue to the "outside root edge" of each leg. Using the guide for alignment, glue the outer support ring in place.



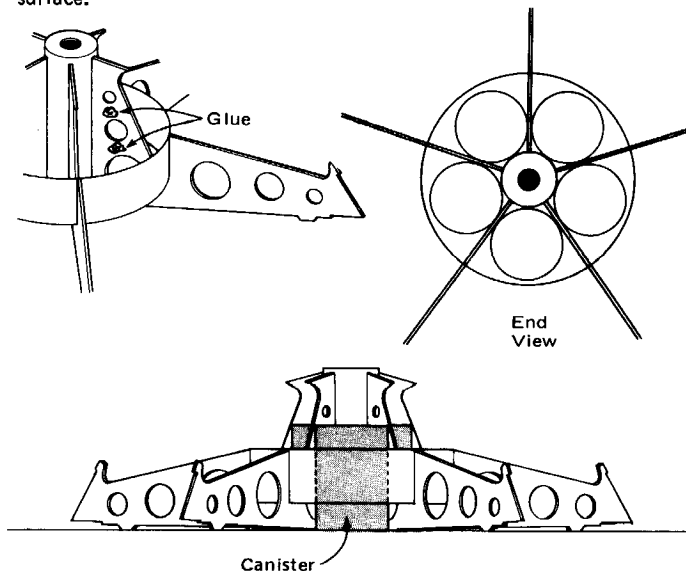
- 9** Cut a 4" long piece of 1/12" dowel from stock. Tip: To make dowel cutting easy, simply use a sharp modeling knife, apply light pressure and "roll" the dowel under the blade. Mark the dowel 1/4" from one end. Using 3/4" wide masking tape, wrap tape around dowel until it fits snugly inside of antenna tube. Apply glue to inside of the tube and replace tape/dowel assembly. Push back in until tape is flush with end of tube.



- 10** Assemble the paper antenna dish by applying glue to the paper tab and forming dish into cone shape. Apply a ring of glue approximately 1/2" from front end of antenna tube. Push dish onto tube from rear and push forward into glue. Slide disc #3 (from die-cut sheet) onto tube from forward end. Before pushing it all the way into the dish, apply glue along inside edges of disc, and then push all the way into dish snugly.

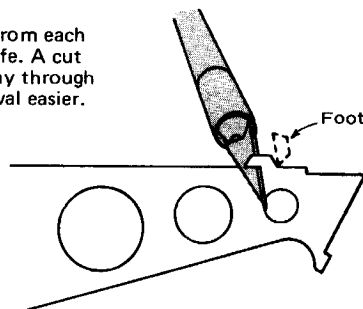


- 11** Locate the 5 canisters. Place Satellite Killer upright on a flat table top. Apply a spot of glue to both sides of each leg as shown below. Place a canister in between each leg. Canister should sit flat on table surface.

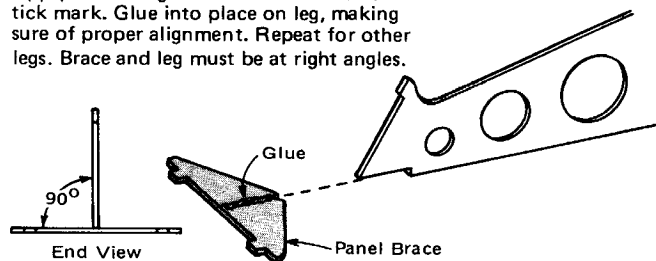


- 12** Carefully remove the "foot" from each leg using a sharp modeling knife. A cut has already been made half way through the fibre board to make removal easier.

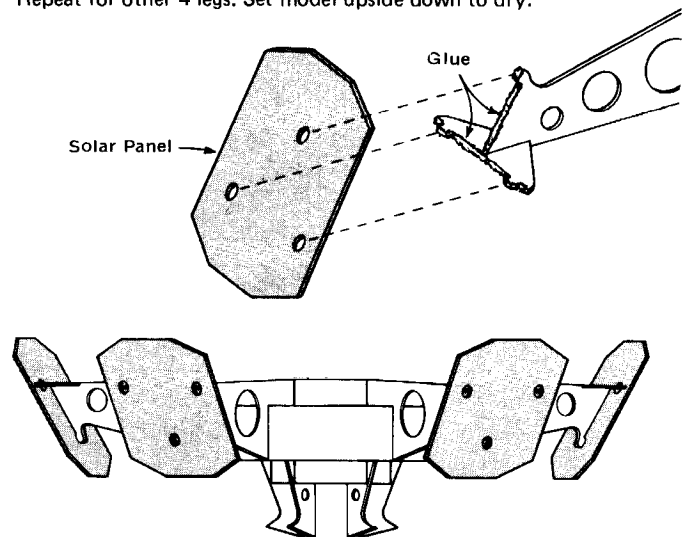
NOTE: To avoid tearing leg from main body be sure to grip it firmly in one hand. Keep all fingers out of path of knife.



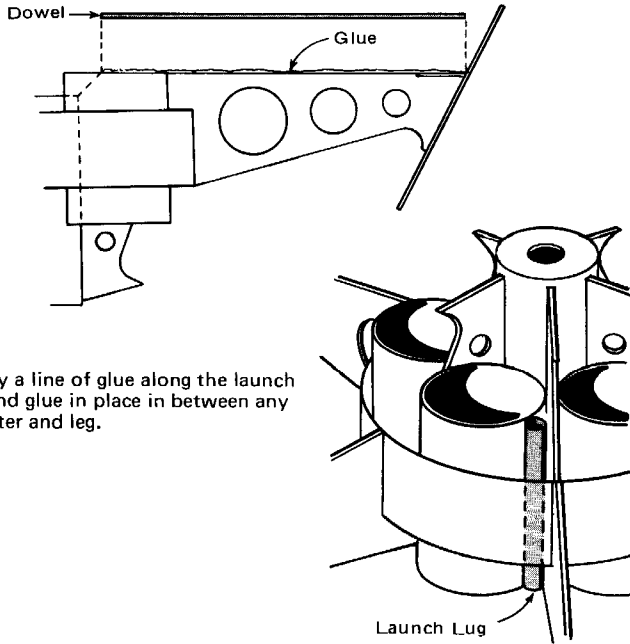
- 13** Remove panel braces from die-cut sheets. Apply a line of glue in between notch and tick mark. Glue into place on leg, making sure of proper alignment. Repeat for other legs. Brace and leg must be at right angles.



- 14** Remove solar panel from die-cut sheet. Remove the 3 "dots" from panel. Apply glue to outside edges of leg where shown, and glue panel in place by lining up the 3 tabs with the 3 holes in panel. Repeat for other 4 legs. Set model upside down to dry.

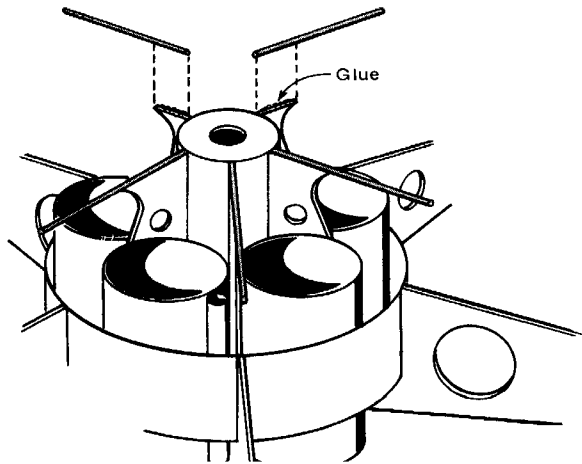


- 15** Locate the five 6" long 1/8" dowels. Cut each dowel so that it is 4-3/4" long. Apply a line of glue along bottom edge of leg and glue dowel in place with one end butted against solar panel. Repeat for other legs.

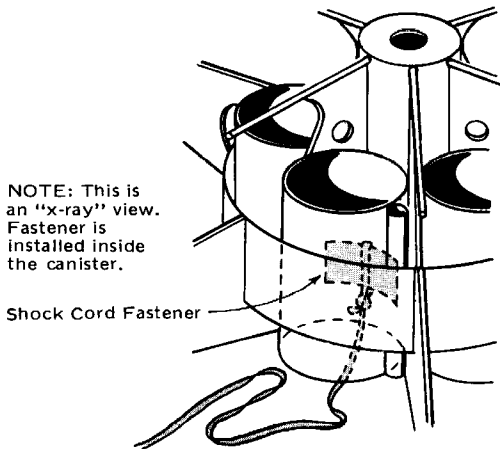


- 16** Apply a line of glue along the launch lug and glue in place in between any canister and leg.

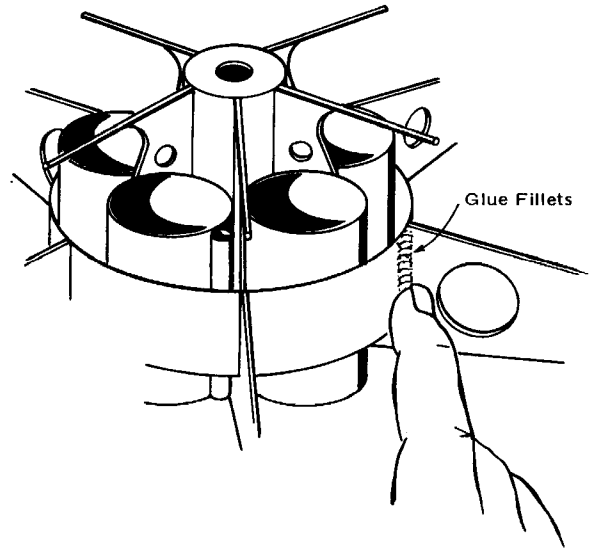
- 17** Cut the remaining 1/12" dowel stock into five 2" long pieces. Use cutting method described in step #9. Apply a line of glue to leg as shown below and glue dowel in place. Repeat step for the other dowels.



- 18** Locate the paper shock cord fastener. Bend it slightly so it can be glued to the inside wall of a canister. Tie the "free" end of the shock cord (other end is tied to engine mount) to the fastener. Apply glue to the fastener and glue it in place inside the canister that has the launch lug attached to it. Use your finger to tamp the fastener firmly in place against the wall of the canister.



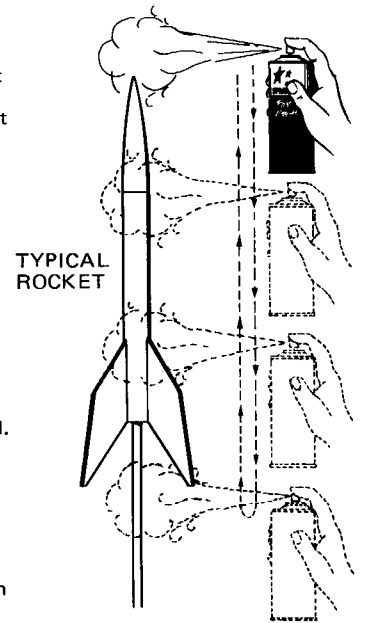
- 19** Apply glue fillets to all major joints as shown below. Smooth glue with finger. This is very important to produce a good looking strong model.



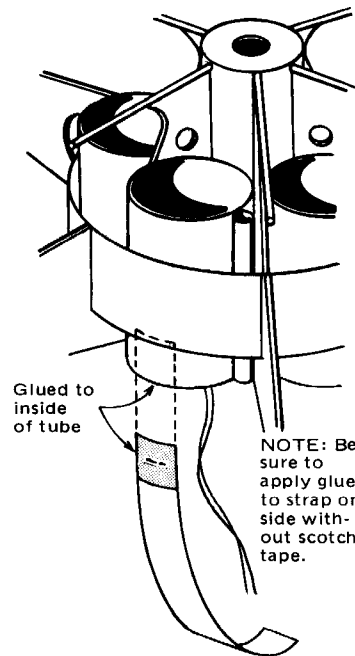
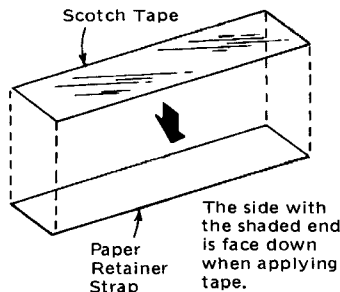
- 20** Spray painting your finished model with a fast-drying enamel will produce the best results—IF IT IS DONE PROPERLY! Most important is the number of coats of paint. DO NOT try to paint your model with one heavy coat! Instead, give it a couple of quick light coats first and then a finish coat. Let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

RECOMMENDED COLOR SCHEME:

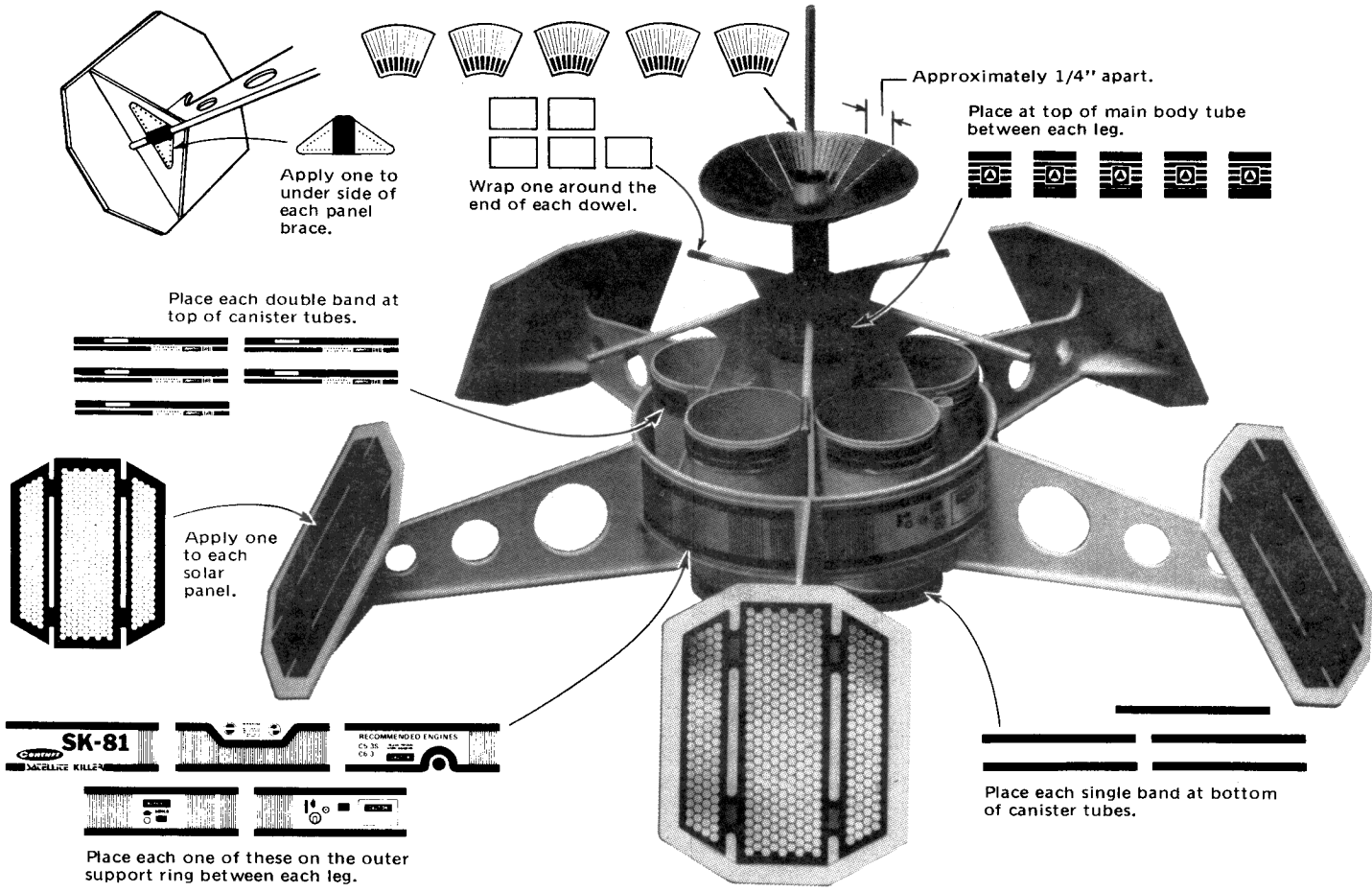
Krylon Dove Grey or
 Pactra Camouflage Grey.
 The antenna dish is Flat Red.



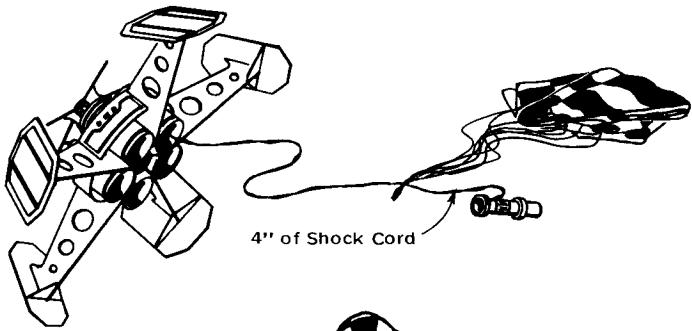
- 21** Cut out the paper retainer strap from page 2 of these instructions. To add strength to the strap, apply a piece of scotch tape to the side that does not have the shaded end. Be sure the tape is centered and does not overhang any of the edges. Apply glue to the end of the strap (the shaded area) and glue in place inside the canister with the launch lug and shock cord as shown at right.



- 22** Apply the stick-on decals as shown at top of next page. Also study package photo for placement before starting.



23 Assemble the parachute according to the instructions printed on it. Tie parachute to the shock cord about 4" from the engine mount. Apply a drop of glue to the knot. Allow to dry.



FLYING INSTRUCTIONS

ENGINES

Igniters and complete instructions are included in "Engine Operating Instructions" which accompany all Centuri Enerjet engines.

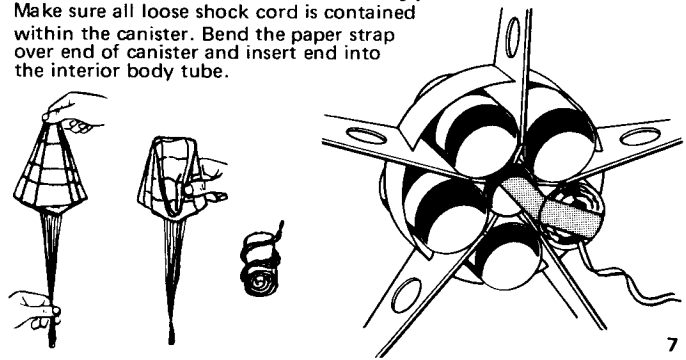
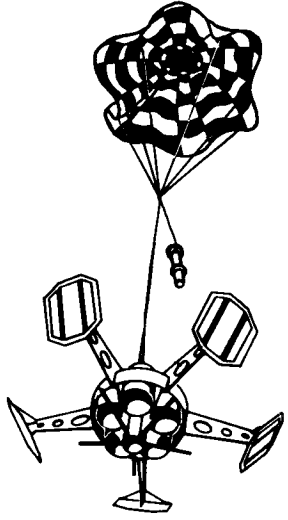
Your Satellite Killer can be launched with the following engines:

ENGINE	APPROXIMATE ALTITUDE	PURPOSE
C5-3S C6-3	100-150 feet	General

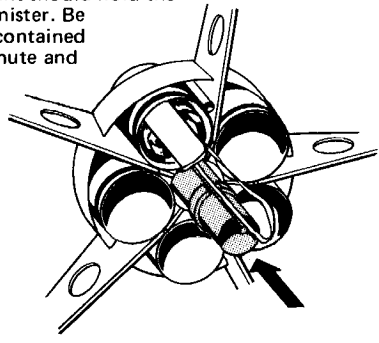
WARNING: Do not attempt to fly your Satellite Killer with any other engines than those recommended. Any attempt to overpower or underpower your model will result in unsatisfactory flight characteristics.

FLIGHT PREPPING

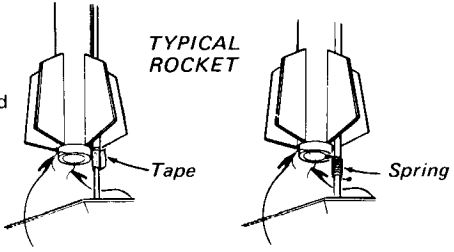
1. Remove the display Antenna Dish.
2. Inspect the entire recovery system for good condition before each flight. If the recovery system is tangled from the last flight, cut it apart, make the necessary repairs and tie back together.
3. Fold the parachute loosely as shown. Wrap the shroud lines around it and tuck it neatly into the canister that has the shock cord mount and paper strap. **The chute should fit snugly inside of the canister.** Make sure all loose shock cord is contained within the canister. Bend the paper strap over end of canister and insert end into the interior body tube.



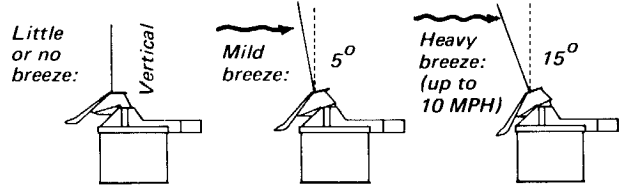
4. Hold the paper strap in place inside of interior body tube with your finger and insert engine mount into interior body tube. Be sure shock cord fits in slit so that the engine mount slides freely in the body tube and there are no obstructions to it ejecting rearward. The engine mount should hold the strap tightly across the canister. Be certain the shock cord is contained in the canister with parachute and will not be burned by exhaust gases.



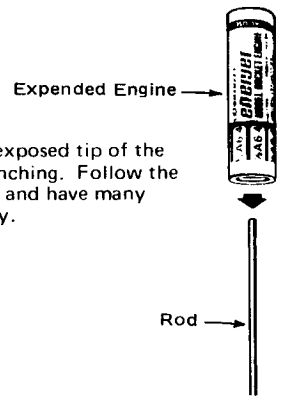
5. Insert igniter into engine, following instructions enclosed with engines.
 6. Insert engine into engine mount, lock in place with engine lock.
 7. Mount the rocket on launcher and prepare for ignition. The rocket must be raised slightly off the launcher's deflector to avoid a short-circuit which might prevent ignition. If your launcher has a "positioning spring" use it as shown. Otherwise just wrap a little tape around the launch rod to support the rocket and the launch lug.



8. If your launcher has a rod-tilting feature, use it only for launching in breezes . . . normally model rockets are launched straight up. For reliable, impressive flights, never tilt the rod more than 15 degrees when flying your Satellite Killer . . . do not tilt the rod to its maximum angle.



Avoid eye injury by capping the exposed tip of the launch rod when not actually launching. Follow the instructions and the Safety Code, and have many happy hours with model Rocketry.



RED-★-EYE™

SPY SATELLITE!
#5346

BUILD AND FLY THIS OTHER EXCITING

TM

ROCKET KIT!
 Styled as a military photo-reconnaissance satellite, it's the counterpart of the Satellite Killer. RED-EYE rockets skyward in normal fashion, ejects its streamer-recovery engine, then drifts gently earthward in a slow gyro-spin. Simple beginner kit features realistic black and chrome stick-on decals.

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 15 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.

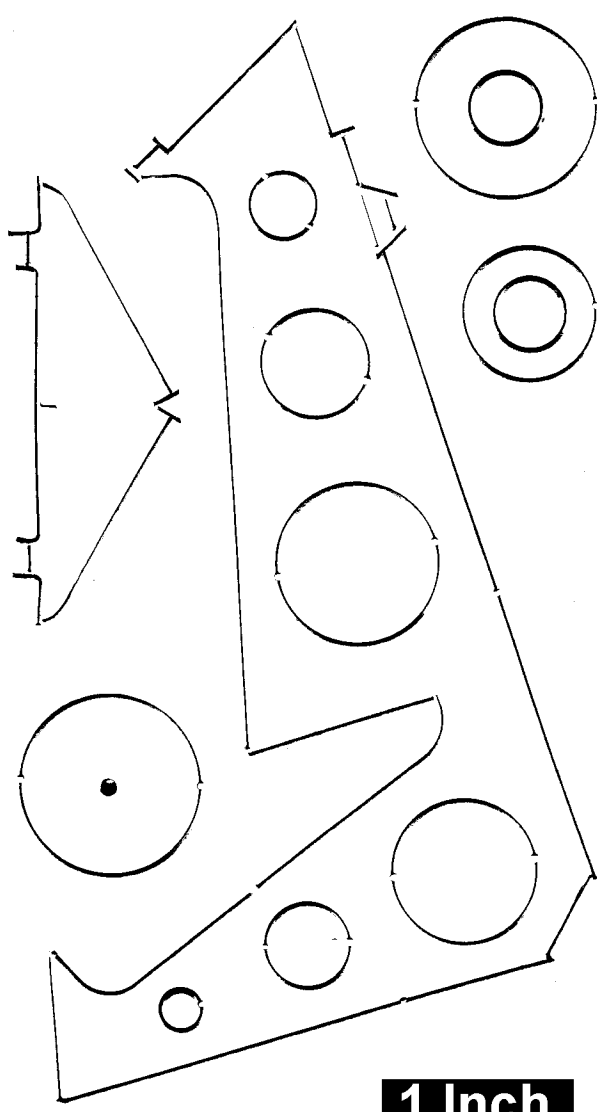
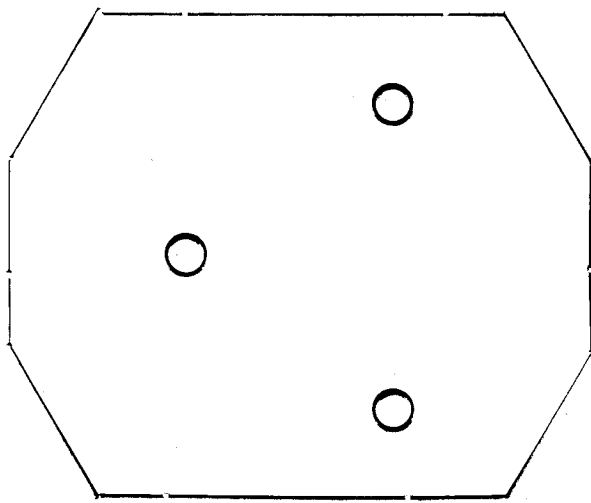
PRE-LAUNCH TEST

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.

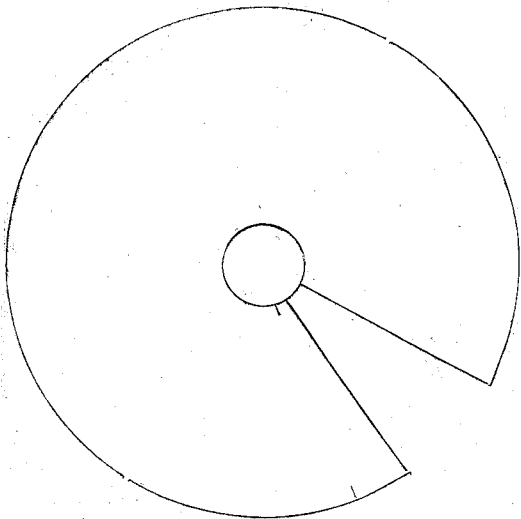
**.050" Thick White Faced Fiber Card
5 Required**



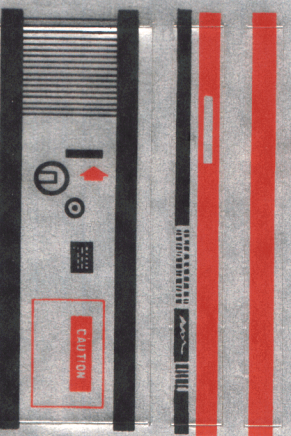
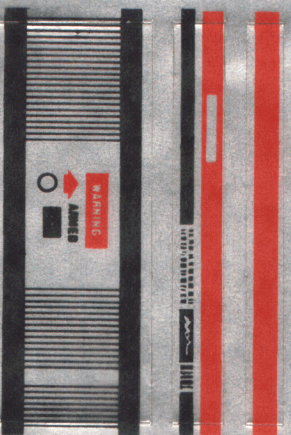
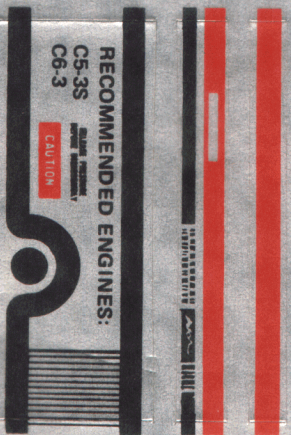
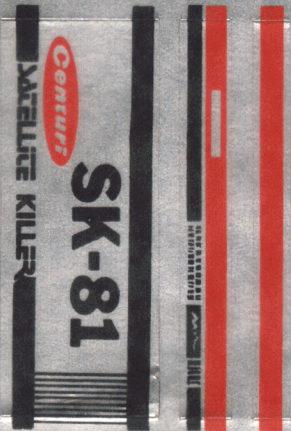
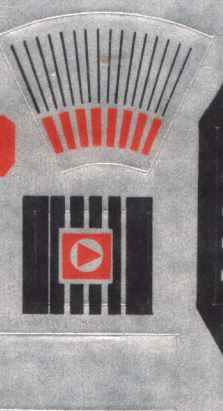
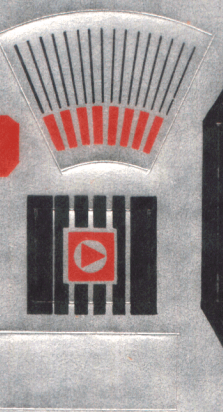
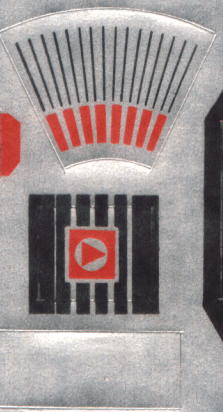
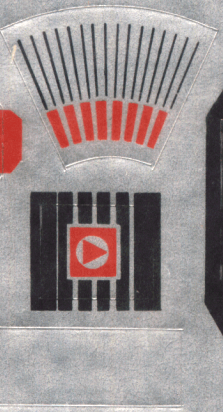
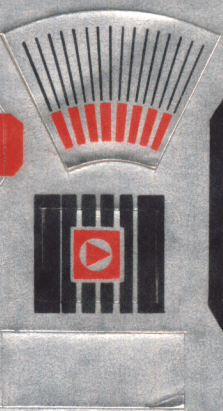
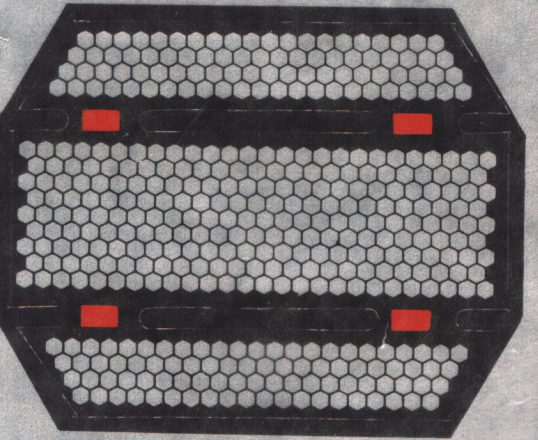
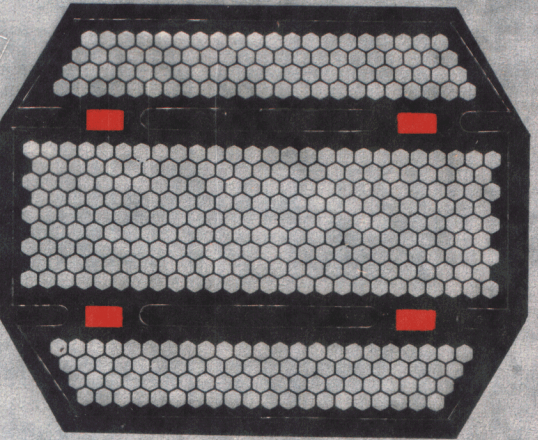
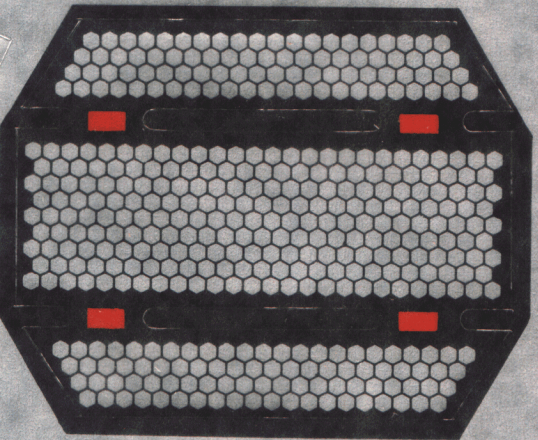
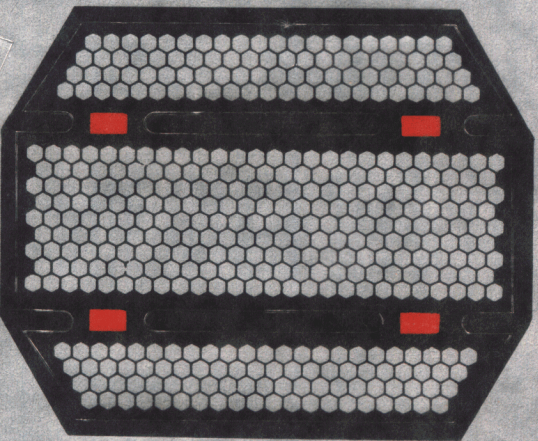
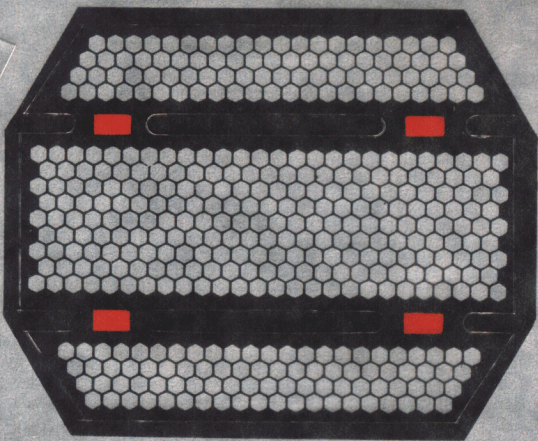
1 Inch

Make From Index Card or File Folder

39828-1c



1 Inch



SATELLITE KILLER

#5345

**WAR
SPACE**

THE NEW 3-D KIT TO DESTROY
THE ENEMY'S SATELLITES!
INCLUDES: MISSILE, MISSILE
LAUNCHER, AND MORE!



- 20" PARACHUTE
- 20" DUCT TAPE
- 1 FOOT DIAMETER
- 100+ PARTS
- REMOVABLE ANTENNA
- 1/2" HOLES FOR EASY DETAIL

You may never have seen a spacecraft like Centuri's SATELLITE KILLER (#5345)... but you may very well see them in the real world! In the near future, such craft may well not just destroy enemy spy satellites. The Centuri version stands ready to intercept, or destroy, enemy in-orbit systems and returns gracefully to Earth's surface. Features "nose antenna" removable for flight.

WEIGHT 4.5 POUNDS
HEIGHT 12" (14" ASSEMBLED)
WING SPAN 18" (20" ASSEMBLED)
PARACHUTE 20" (24" ASSEMBLED)

RECOMMENDED BY
CENTURI
RECOMMENDED
FOR AGES 10 TO ADULT

This is a highly
detailed model
which requires
careful assembly
and attention to
detail.



Centuri

ASSEMBLED DIAMETER 12.25" (12.5" ASSEMBLED)
RECOMMENDED FOR AGES 10 THRU ADULT
Adult participation suggested for ages under 10!

FLYING MODEL ROCKET KIT