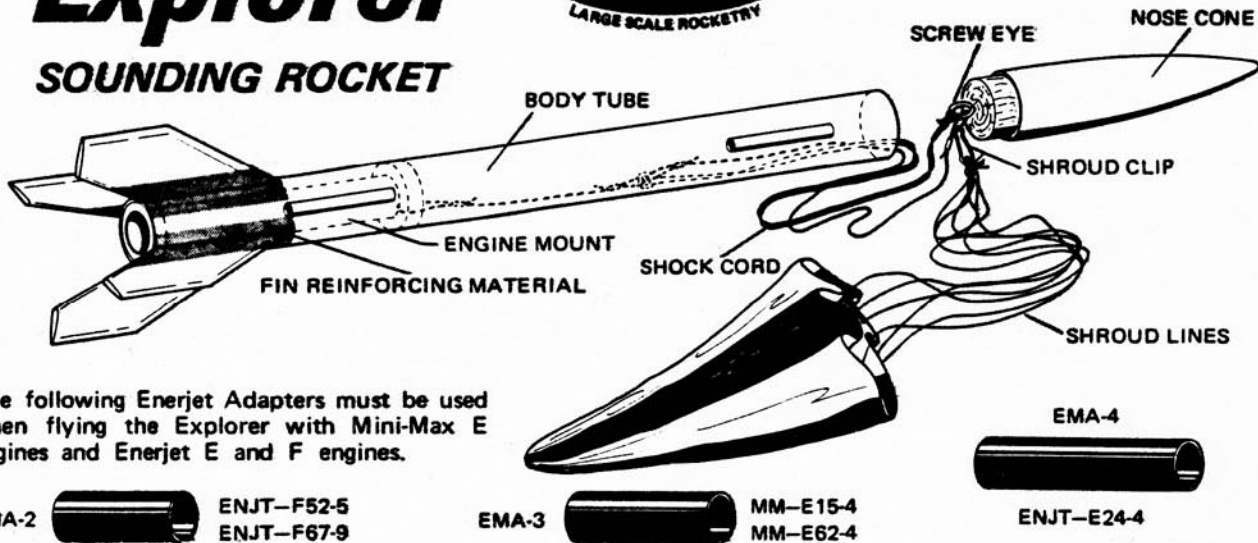


Explorer



SOUNDING ROCKET



The following Enerjet Adapters must be used when flying the Explorer with Mini-Max E engines and Enerjet E and F engines.

EMA-2 ENJT-F52-5
ENJT-F67-9

EMA-3 MM-E15-4
MM-E62-4

EMA-4
ENJT-E24-4

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

INTRODUCTION

"Sounding", as applied to rockets, means to investigate or examine. A "sounding rocket" is a meteorological rocket used to gather atmospheric data such as temperature, pressure, radiation, and wind velocity. Sensitive instruments within the nose cone and payload compartment are exposed to the upper atmosphere for purposes of measuring the above mentioned objects of study. This information is sometimes recorded within the rocket itself, but is most often telemetered back to Earth by means of radio transmitters within the payload compartment.

The EXPLORER sounding rocket is capable of reaching altitudes in excess of 2000 feet when powered by ENERJET engines.

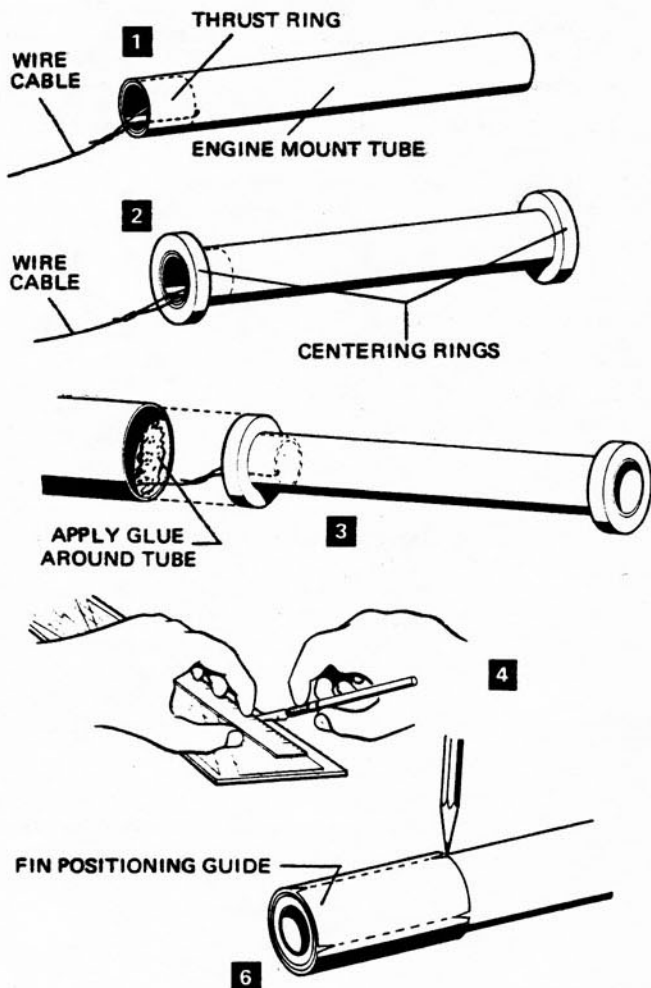
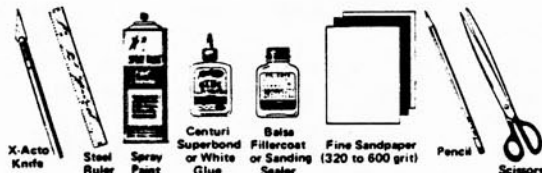
ENGINE MOUNT ASSEMBLY

- 1 Glue the thrust ring into the engine tube with ends flush as shown with the wire leading out.
- 2 Glue the centering rings into place on the engine tube as shown with both ends flush. Allow glue to dry.
- 3 Apply a generous amount of glue to the inside of the body tube at one end and insert the engine mount (thrust ring forward) allowing the wire to hang freely inside the tube. Stand the tube on its tail end while the glue dries.

On some models the engine mounts have been pre-installed in which case you may proceed directly with fin mounting.

FIN ASSEMBLY

- 4 Carefully cut out the fins with a modeling or X-Acto knife. Use a metal ruler for a cutting guide.
- 5 For proper aerodynamic flow, round the leading edge and taper the trailing edge of each fin. Slightly round off the tip edge.
- 6 Cut out the enclosed Fin Positioning Guide, wrap around the body tube base, and mark the fin locations with pen or pencil.



- 7** Apply white glue or Super Bond to each fin root cord edge, one at a time, and also along the tube where the fins are to be attached. When glue has just begun to set, place fins in position over the location marks.
- 8** Stand tube on top end and allow to dry. With the Fin Alignment Guide, check the angle between fins before glue has completely set.
- 9** For increased fin strength, cut out and glue reinforcing material over fin-body joints, as shown in the assembly drawing, after the initial gluing has thoroughly dried.
- 10** The EXPLORER may be launched from either a 1/8" or 3/16" diameter launch rod. However, when powered by large engines, it should be launched from a 3/16" rod only. Glue the proper lug to the body tube in the position shown.

SHOCK CORD & PARACHUTE ASSEMBLY

- 11** Thread the screw eye into the nose cone base. Unscrew the eye, squirt glue into the resulting hole, and thread the eye back into place. This gluing will keep the eye from pulling out during recovery. Attach the parachute to the screw eye by using the shroud clip.

FINISHING THE EXPLORER

- 12** For maximum altitude flights and ideal appearance, the grain texture of all balsa parts should be filled in with several coats of balsa filler. Sand smooth between applications. The body tube does not require this special treatment. Finish with lightweight paint such as spray type or lacquered enamel. Fluorescent colors and black are extremely easy to spot at high altitudes.
- 13** To protect the stabilizer fins from the engine's hot exhaust gases, paint the rear half of each fin and the complete rear centering ring with Flameproofing Solution. When the Solution has dried, you may paint over it with any paint to complete the finish.

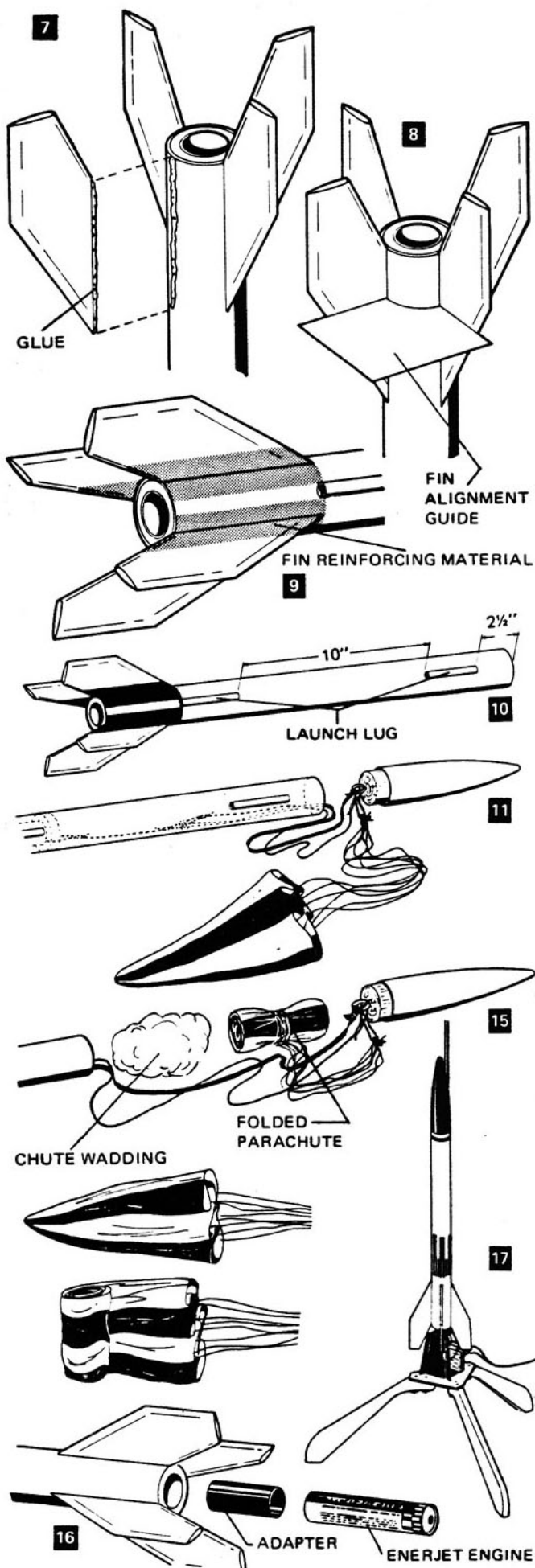
LAUNCHING THE EXPLORER

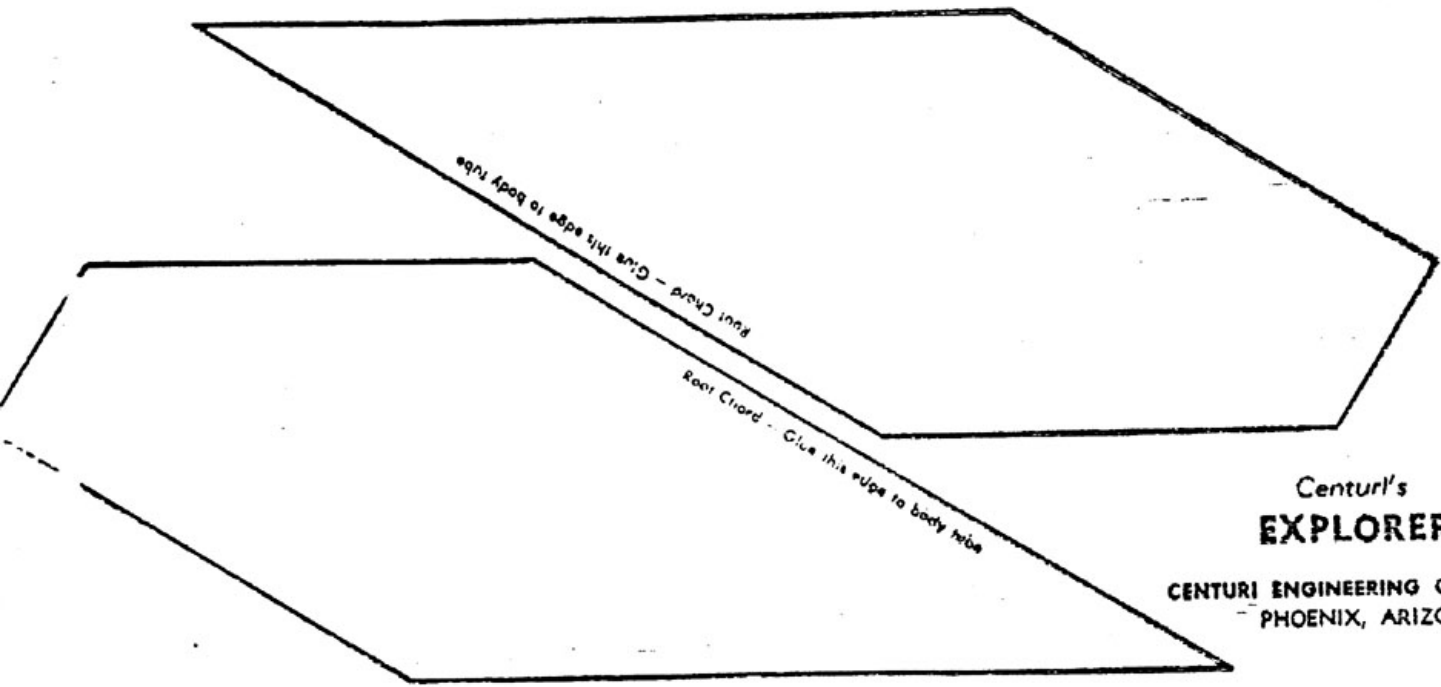
- 14** To fly the EXPLORER with E engines simply slip a MINI-MAX or an ENERJET E engine spacing tube into the engine tube ahead of the E engine. Prepare all engines according to the instructions included in each engine package.

Recommended Engines:

MM-E15-4 or E62-4 MM-F16-7 or F97-7
 ENJT-E24-4 ENJT-F52-5 or F67-9

- 15** Wrap the chute shrouds around the folded canopy. Insert a piece of flameproof cotton wadding, about the size of a large egg, into the body tube first. Next, insert shock cord and secure cable, followed by the folded parachute and the nose cone.
- 16** Place appropriate adapter ahead of the desired engine as shown in illustration.
- 17** Launch the EXPLORER from a launch rod firmly mounted in a sturdy base block or stand like those shown in Centuri's supplies catalog. Avoid launching in windy or overcast weather, as recovery under these conditions will be difficult if not impossible. Always give a short countdown before launching to alert spectators and trackers.
- 18** The EXPLORER should be launched from the center of an open field measuring at least 600 feet on a side. Do not, under any circumstances, launch from a backyard or near populated areas. Choose a clear unobstructed launch site away from houses, highways, and trees.

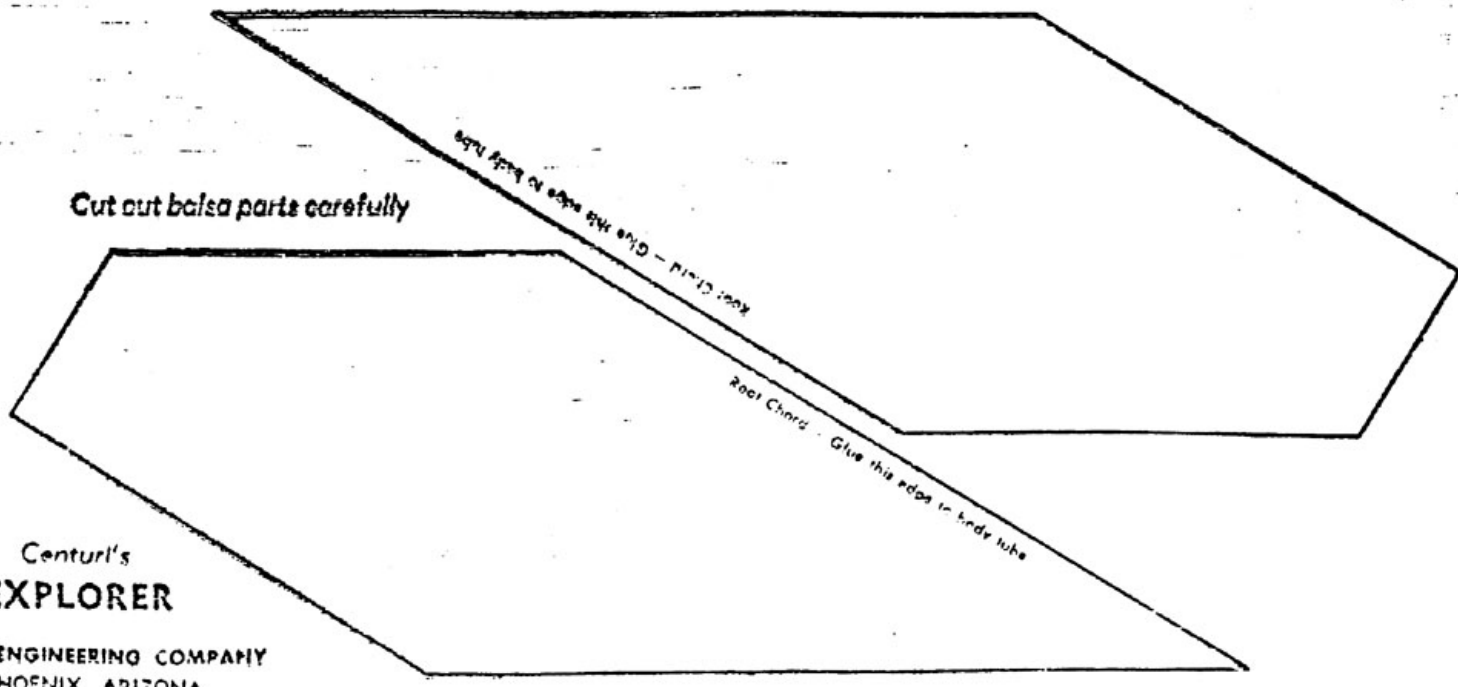




Centuri's
EXPLORER

CENTURI ENGINEERING COMPANY
PHOENIX, ARIZONA

Cut out balsa parts carefully



Centuri's
EXPLORER

CENTURI ENGINEERING COMPANY
PHOENIX, ARIZONA

FIN POSITIONING GUIDE

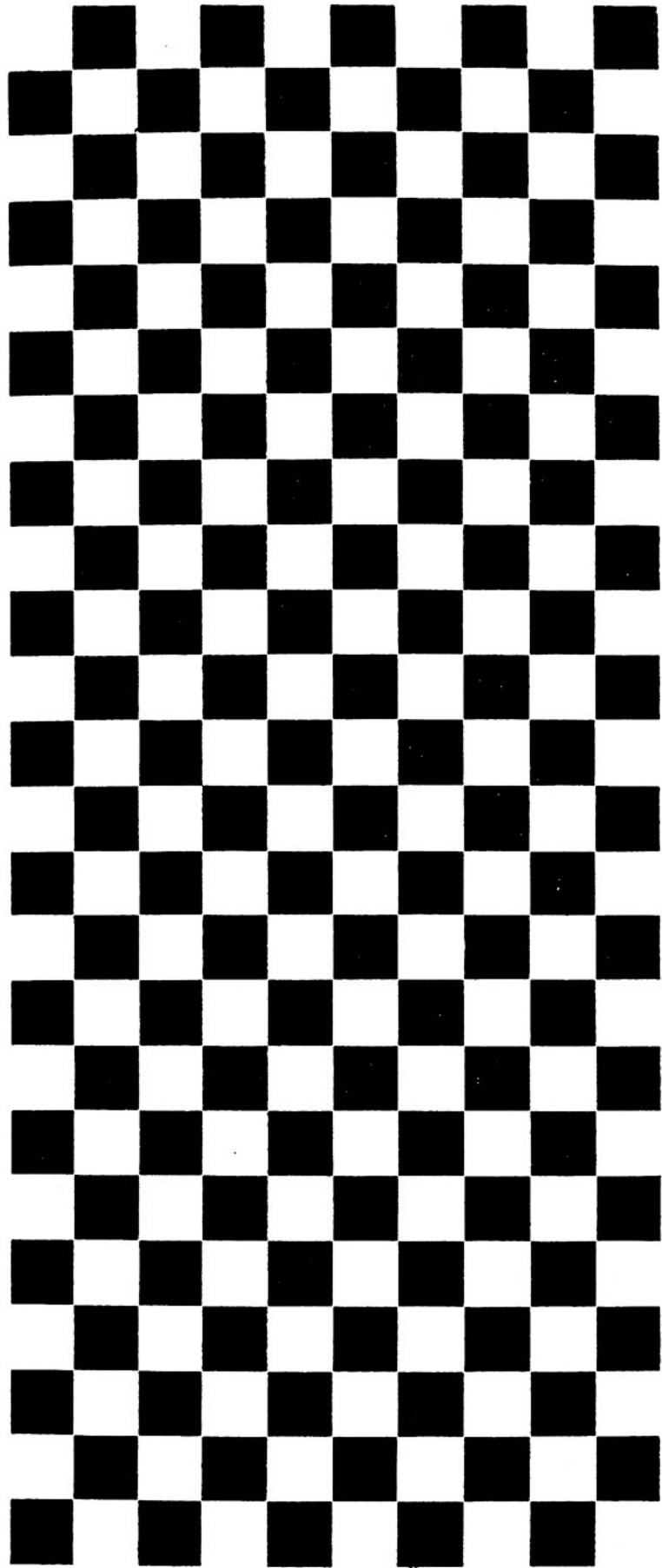
Wrap around body tube-----tape end flap closed--mark fin locations-- and remove.

CENTURI ENGINEERING COMPANY
Phoenix, Arizona

FIN ALIGNMENT GUIDE

For 4-fin arrangement
on 1.75" I.D. body tube.

Black
Red
White



EXPLORER

Centuri Explorer

Body Tube: Lt-175A 1.84 o.d. x 20" SEMROC Pt. #LT-175220 (Cut to 20")

Nose Cone: BC-175B (6.7") SEMROC Pt. #BC-17567

Fins (4): 1/8" Balsa

Parachute: 18" silk

Motor Mount: 29mm

Notes:

As with a lot of Centuri kits, the actual length of the finished Explorer differs from the stated length in the catalogue. The catalogue lists a 20" airframe, which is shorter than the Lt-175A sold in the catalogue by 2". Assuming that this was the case, the 20" tube plus the 6.7" nose cone plus the extra 2" from the swept back fins add up to 28.7". Not a huge difference, but worth noting.

SEL 01.22.06