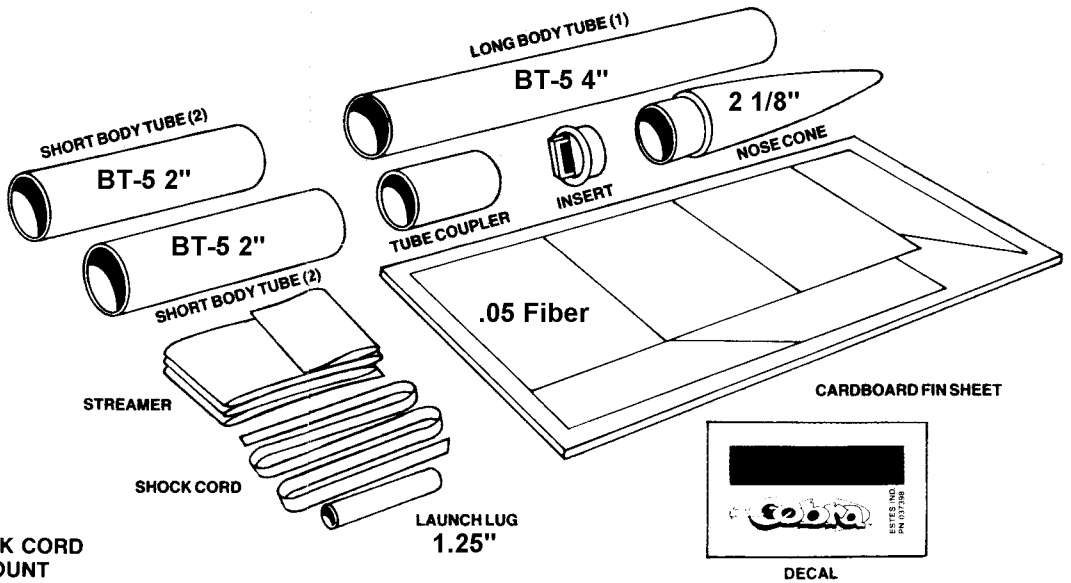
Estes Industries
1295 H Street
Penrose, CO 81240

mini Cobra™

FLYING MODEL ROCKET #0898

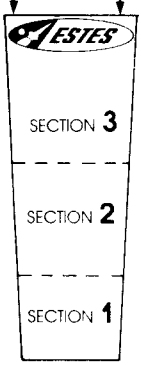
ASSEMBLY TIP

Read all instructions before beginning work on your model. Make sure you have all parts and supplies. Test-fit all parts together before applying any glue. If any parts don't fit properly, sand as required for precision assembly.

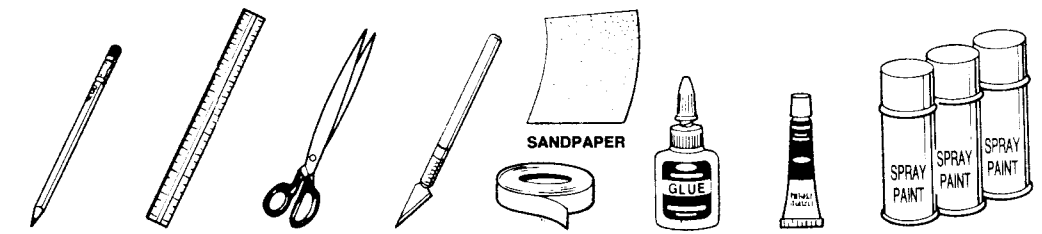


SHOCK CORD MOUNT

CUT OUT ON BOLD LINES



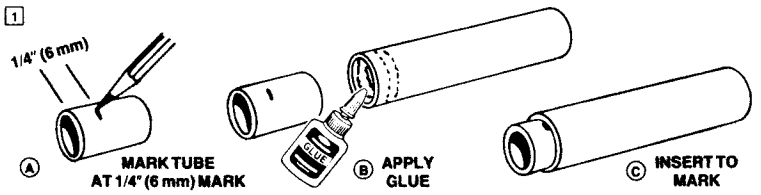
Locate the parts shown above and lay them out on the table in front of you. In addition to the parts included in the kit, you will need the supplies shown.



PENCIL · RULER · SCISSORS · HOBBY KNIFE · TRANSPARENT TAPE · GLUE · MODEL CEMENT · ENAMEL SPRAY PAINT (yellow, white, blue)

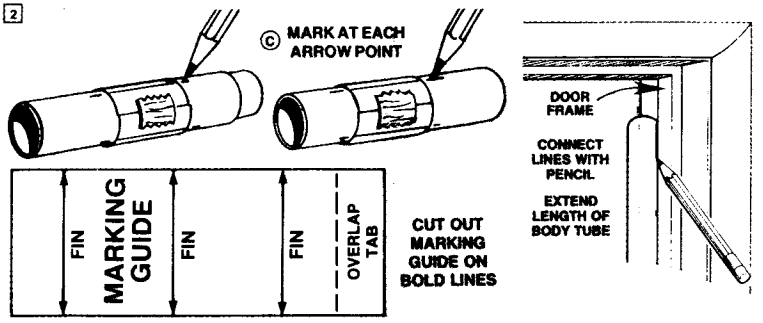
1.

A. Mark the tube coupler 1/4" (6 mm) from one end.
B. Run a bead of glue inside one of the short body tubes.
C. Insert coupler into the short body tube up to the 1/4" (6 mm) mark.



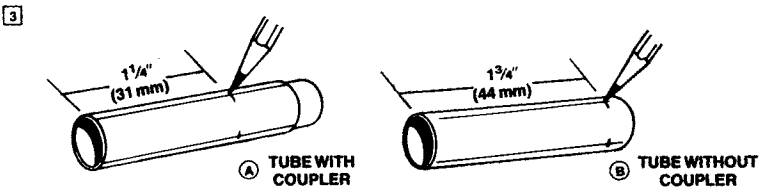
2.

A. Cut out the fin marking guide. The same guide will be used for both short body tubes.
B. Wrap the guide around one of the short body tubes and fasten with a piece of tape.
C. Mark the body tubes at each arrow point and remove marking guide from body tubes.
D. Using a door frame as a guide, extend the marks the full length of each body tube.



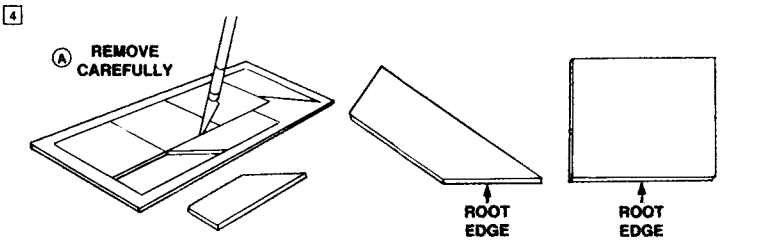
3.

A. Mark the short body tube with the tube coupler, 1¼" (31 mm) back from the end. Mark on each guide line.
B. Mark the short body tube without coupler 1¾" (44 mm) from one end. Mark each guide line.



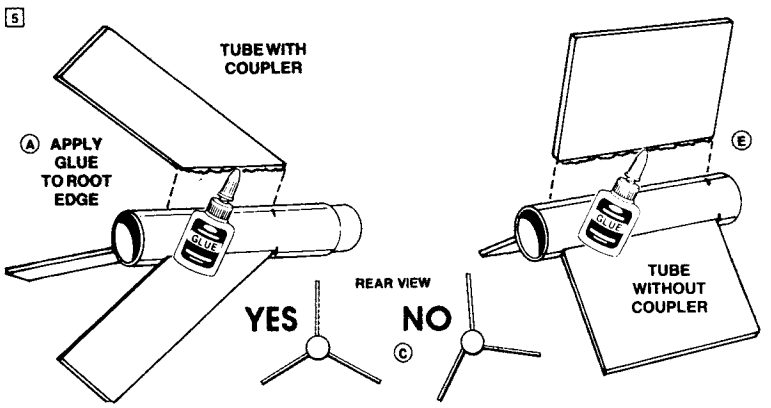
4.

A. Using a hobby knife, carefully remove each fin from the cardboard fin sheet.
B. Identify and separate the two fin shapes. The long angled fins go on the short body tube with the coupler. The rectangular fins go on the short body tube without the coupler.



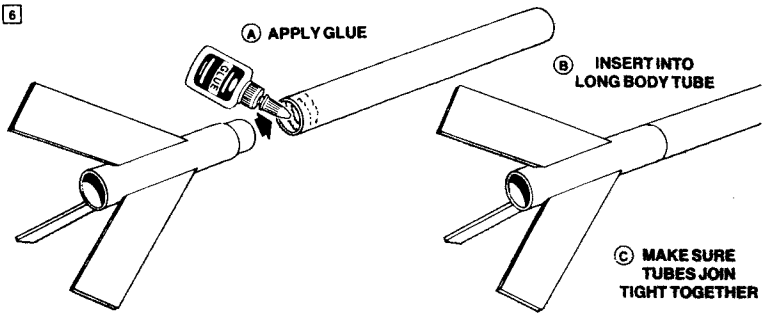
5.

A. Take one of the long angled fins that go on the short body tube with the coupler and apply a bead of glue to the root edge. The root edge is the edge that glues to the body tube. Position the fin as shown with the forward end of the 1¼" (31 mm) mark. Align the fin on guide line.
B. Repeat this process for the other two fins.
C. Check that the fins are positioned straight out from the body tube.
D. Let glue thoroughly dry.
E. Repeat this assembly process for the rectangular fins on the other short body tube. Be sure to properly identify root edge (longest side). Glue at the 1¾" (44 mm) mark.



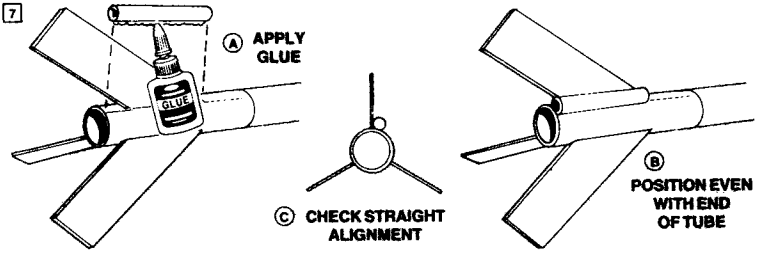
6.

A. Apply a bead of glue inside one end of the long body tube.
B. Insert the short body tube fin assembly with the tube coupler as shown.
C. Make sure both body tubes butt together and are aligned straight.
D. Let glue dry thoroughly.



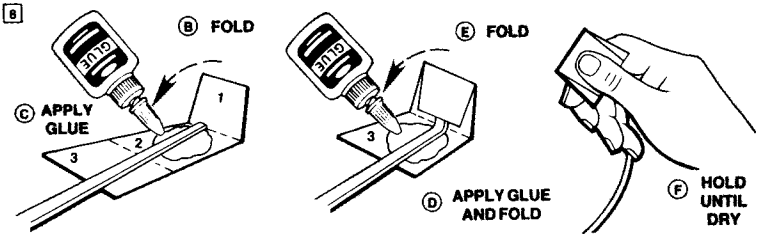
7.

A. Apply a bead of glue along the launch lug.
B. Glue it to the long body tube assembly alongside one of the fins.
C. Position it even with the rear of the body tube and align it straight with body tube using the fin guide line as a reference.



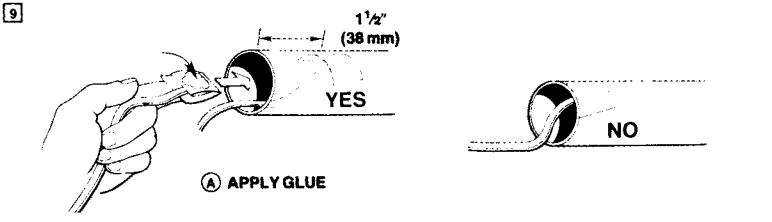
8.

A. Cut out shock cord mount.
B. Crease on dotted lines by folding.
C. Spread glue on section 1 and lay end of shock cord into glue.
D. Fold over and apply glue to back of first section and exposed part of section 2.
E. Lay shock cord as shown and fold mount over again.
F. Clamp unit together with fingers until glue sets.



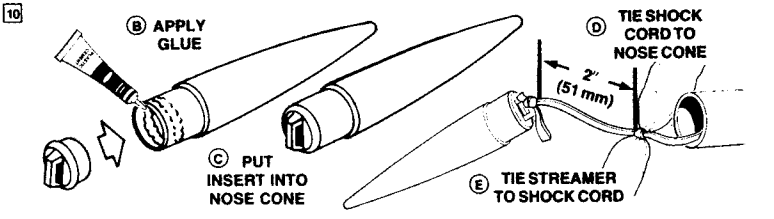
9.

A. Apply glue to inside front of body tube to cover an area no less than 1½" (38 mm) from end.
B. The glued area should be same size as shock cord mount.
C. Press mount firmly into glue as shown. Hold until glue sets.



10.

A. Locate the nose cone and nose cone insert.
B. Apply a bead of tube type plastic cement inside the nose cone as shown.
C. Position the insert into the nose cone.
D. When dry, tie free end of shock cord to nose cone loop with a double knot.
E. Using a double knot, tie shock cord around middle of plastic streamer about 2" (51 mm) from end of shock cord.

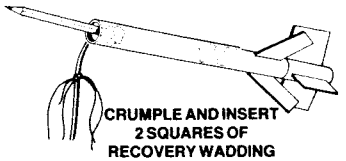


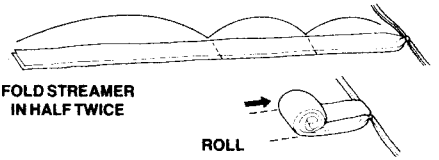
FINISHING YOUR ROCKET

Apply sanding sealer to fin parts. Repeat sealing and sanding between coats until fins are smooth. Paint model with white spray enamel following instructions on spray can for best results. Let white dry thoroughly.

Mask off rocket and paint lower second-stage fins blue. Paint first-stage yellow. Refer to photo on front panel for decal placement. Apply pressure sensitive decals gently in position. If position is correct, rub it down with your finger to remove air bubbles.

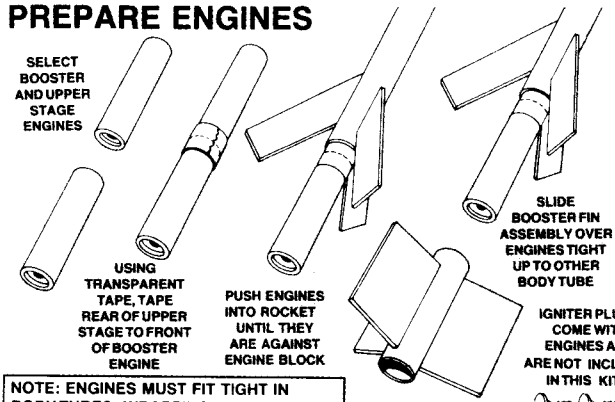
ROCKET PREFLIGHT

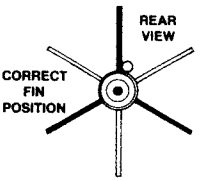


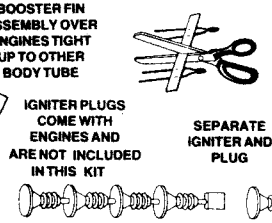


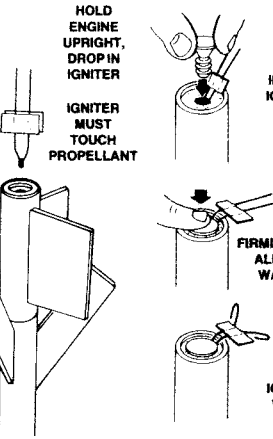
NOTE: If nose cone fits too loosely, wrap tape around the shoulder until a snug but not tight fit is achieved.

PREPARE ENGINES









NOTE: ENGINES MUST FIT TIGHT IN BODY TUBES - WRAPPING TAPE AROUND ENGINES WILL CORRECT LOOSE FIT

LAUNCH SUPPLIES

To launch your rocket you will need the following items:
—An Estes Launch System
—Estes Recovery Wadding No. 2274
—Recommended Estes Engines: A3-4T, A10-3T (second stage)
A10-0T (first stage)

To become familiar with your rocket's flight pattern, use an A3-4T engine for the second stage and an A10-0T engine for the first stage for your first flight.

Use only Estes products to launch this rocket.

FLYING YOUR ROCKET

Choose a large field away from power lines, tall trees, and low flying aircraft. Try to find a field at least 250 feet (76 meters) square. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great.

Launch area must be free of dry weeds and brown grass.

Launch only during calm weather with little or no wind and good visibility.

MISFIRES

Failure of the model rocket engine to ignite is nearly always caused by incorrect igniter installation. An Estes igniter will function properly even if the coated tip is chipped. However, if the coated tip is not in direct contact with the engine propellant, it will only heat and not ignite the engine.

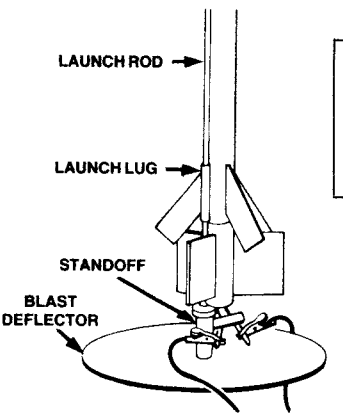
When an ignition failure occurs, remove the safety key from the launch control system and wait one minute before approaching the rocket. Remove the expended igniter from the engine and install a new one. Be certain the coated tip is in direct contact with the engine propellant, then tape the igniter leads firmly to base of engine as illustrated above. Repeat the countdown and launch procedure.

FOR YOUR SAFETY AND ENJOYMENT

Always follow the NAR* MODEL ROCKETRY SAFETY CODE while participating in any model rocketry activities.

*National Association of Rocketry

COUNTDOWN AND LAUNCH



SAFETY KEY MUST NOT BE IN LAUNCH CONTROLLER WHEN ATTACHING MICRO-CLIPS TO ENGINE IGNITERS

MICRO-CLIPS MUST NOT TOUCH BLAST DEFLECTOR OR EACH OTHER

⑩ BE CERTAIN SAFETY KEY IS NOT IN LAUNCH CONTROLLER.

⑨ Remove safety cap and slide launch lug over launch rod to place rocket on launch pad. Make sure the rocket slides freely on the launch rod.

⑧ Attach micro-clips to the igniter wires. Arrange the clips so they do not touch each other or the metal blast deflector. Attach clips as close to protective tape on igniter as possible.

⑦ Move back from your rocket as far as launch wire will permit (at least 15 feet - 5 meters).

⑥ INSERT SAFETY KEY to arm the launch controller.

Give audible countdown 5...4...3...2...1

LAUNCH!! **PUSH AND HOLD LAUNCH BUTTON UNTIL ENGINE IGNITES**

REMOVE SAFETY KEY FROM LAUNCH CONTROLLER. REPLACE SAFETY KEY AND SAFETY CAP ON LAUNCH ROD.

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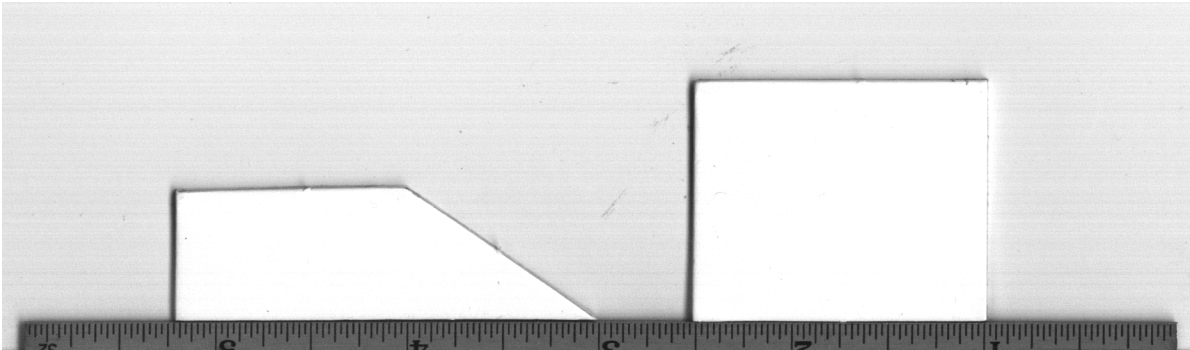

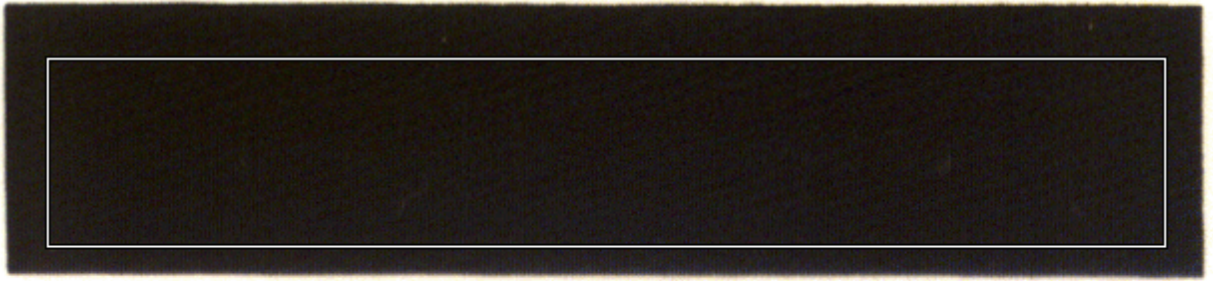

ESTES IND.
PN 037398

MINI-COBRA™

Fly to incredible altitudes with this ideal first two-stage rocket. Like all of our multi-staged models, the Mini-Cobra™ can be flown single-stage too.

Specifications:

Length: 25 cm (10"); Dia.: 13.8 mm (0.544"); Wt.: 13.2 g (0.47 oz.); Engines: single stage - A3-4T (First Flight), A10-3T, first stage - A10-0T, second stage - 1/2A3-4T

EXPLORER

SERIES

Cobra

TWO STAGE FLYING MODEL ROCKET

- High Performance Two Stage Sport Rocket
- Can Also Be Flown Single Stage
- Colorful Pressure-Sensitive Decals
- Plastic Nose Cone
- Die-Cut Fiber Fins

- Recovers Altitudes Over 900 Feet (274 m)

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