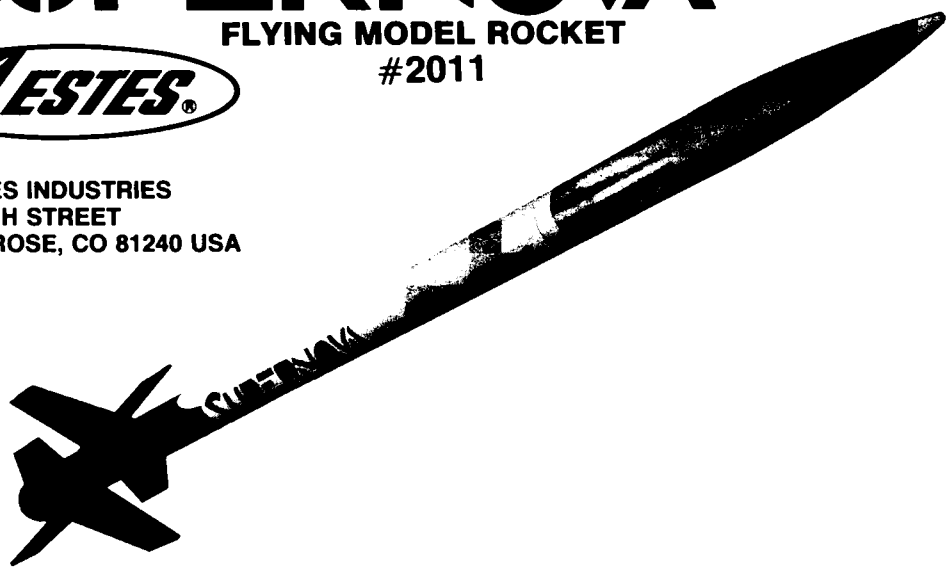

SUPER NOVA

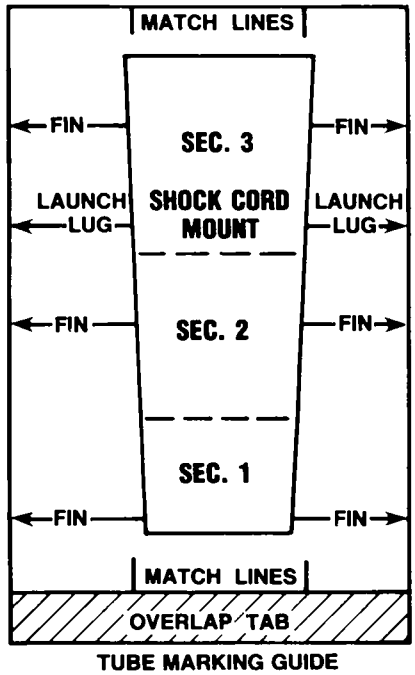
SUPERNOVA™

FLYING MODEL ROCKET

#2011

ESTES INDUSTRIES
1295 H STREET
PENROSE, CO 81240 USA

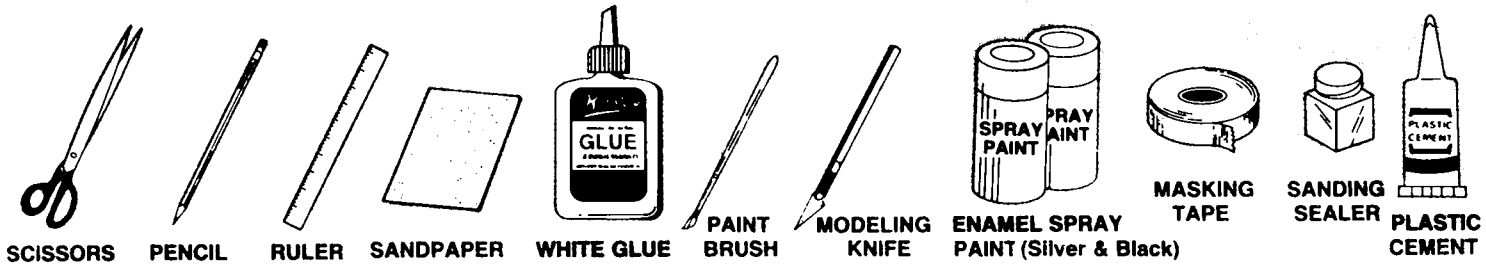




TUBE MARKING GUIDE

PARTS AND SUPPLIES

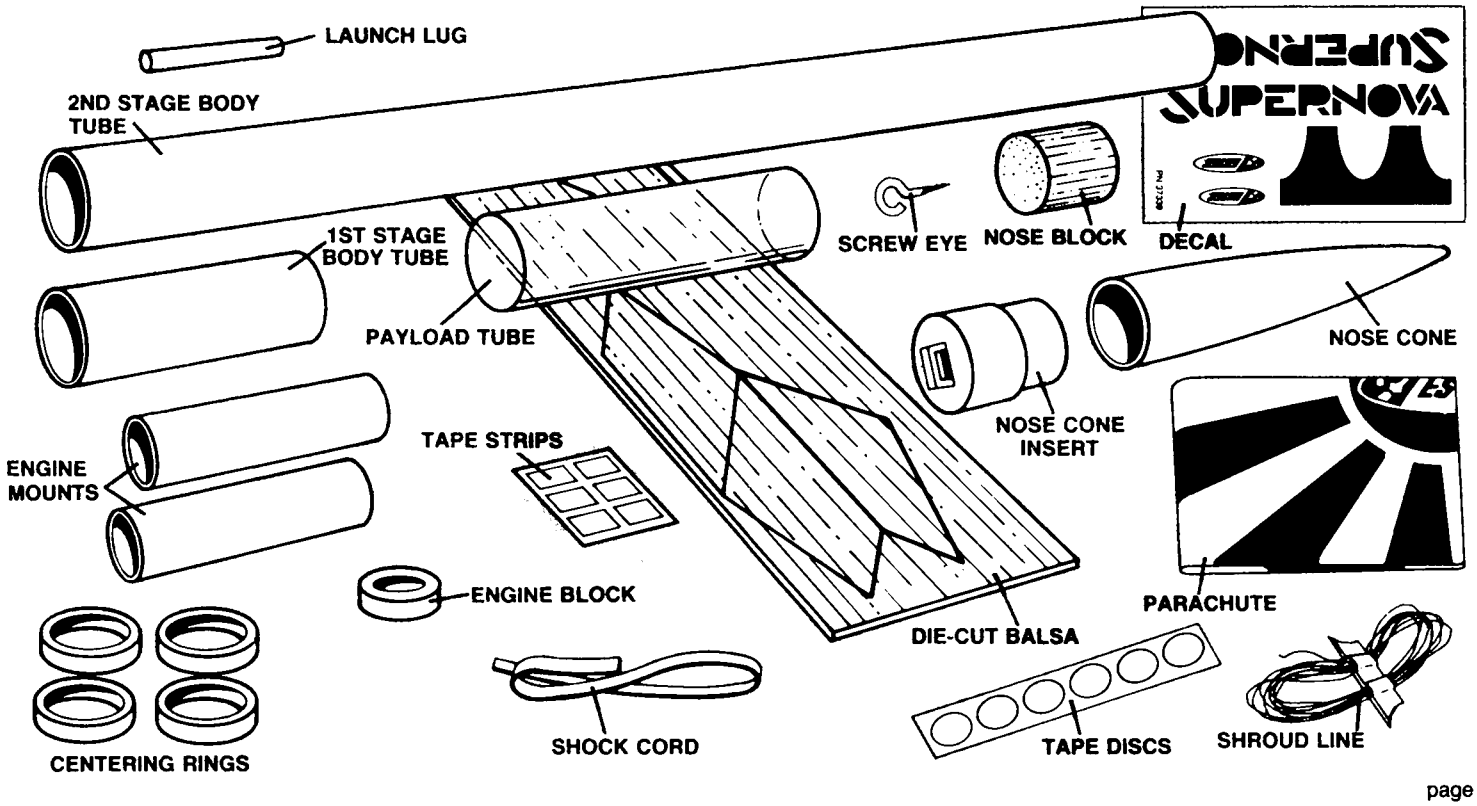
Locate the parts shown below and lay them out on the table in front of you. In addition to the parts included in the kit you will also need:



SCISSORS | PENCIL | RULER | SANDPAPER | WHITE GLUE | PAINT BRUSH | MODELING KNIFE | ENAMEL SPRAY PAINT (Silver & Black) | MASKING TAPE | SANDING SEALER | PLASTIC CEMENT

ASSEMBLY TIP

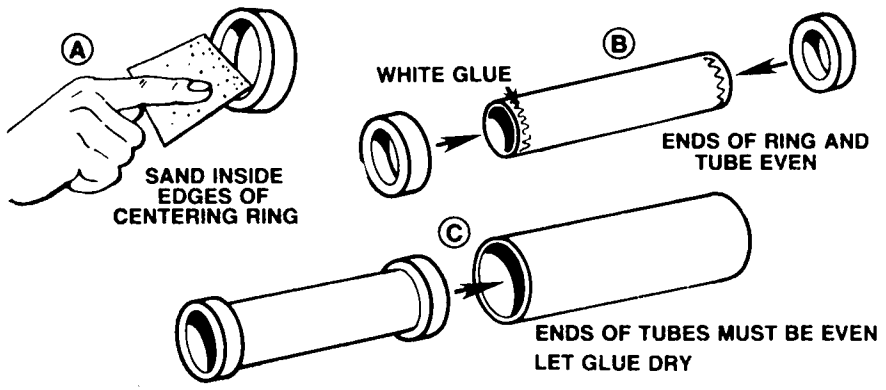
Read all instructions before beginning work on your model. Make sure you have all parts and supplies.
Test-fit all parts together before applying any glue. If any parts don't fit properly, sand as required for precision assembly.



1ST STAGE ASSEMBLY

1.

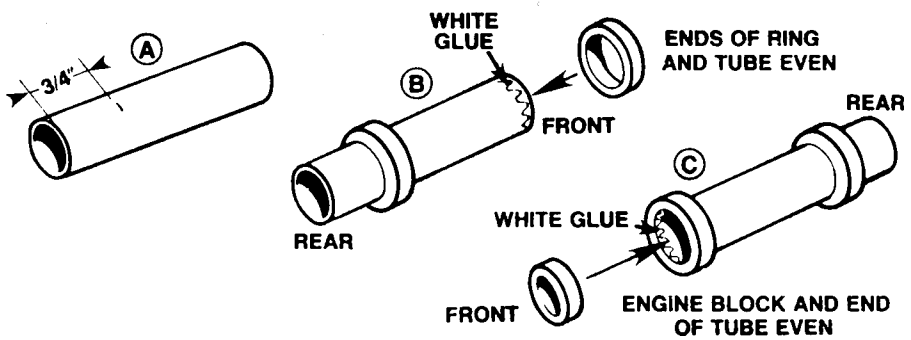
A. Sand inside edges of each of the four centering rings.
B. Glue one centering ring to each end of one engine mount tube as shown. Let glue dry before proceeding.
C. Apply glue around inside of 1st stage body tube. Push engine mount assembly into tube until ends of tubes are even. Set assembly aside to dry.



2ND STAGE ASSEMBLY

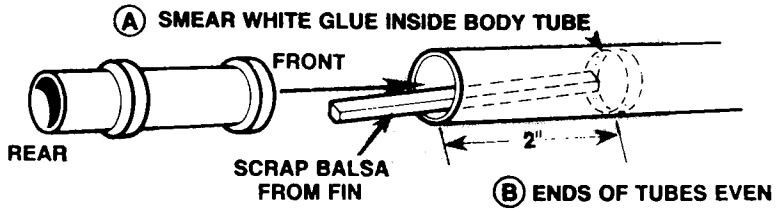
2.

A. Mark other engine mount tube 3/4 inch from one end.
B. Glue one centering ring onto tube with bottom edge at 3/4 inch mark. Glue remaining ring onto tube even with front end of tube.
C. Apply a small amount of glue around inside front end of engine mount tube. Slide engine block into top end of tube even with tube end. Remove excess glue in engine mount tube. Let assembly dry before proceeding.



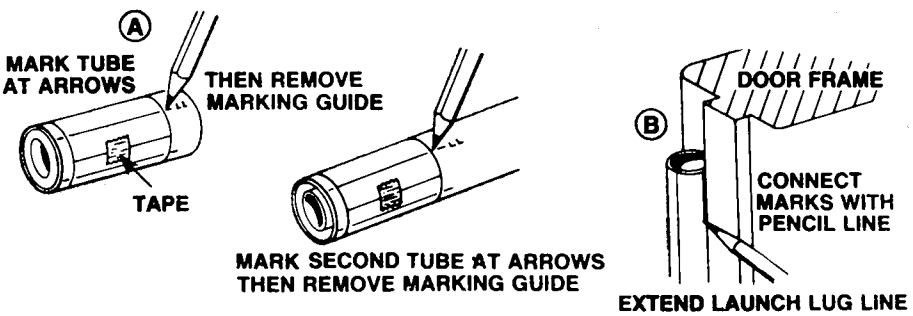
3.

A. Using a piece of scrap balsa, smear glue inside body tube 2 inches from one end of 2nd stage body tube.
B. Push engine mount in until tube ends are even.



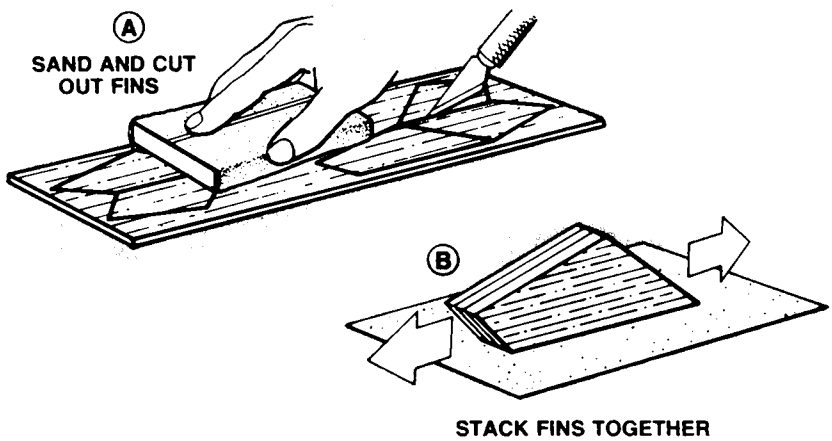
4.

Cut out tube marking guide from front of instructions.
A. Wrap guide around 1st stage tube and tape. Mark tube at arrows. Remove guide and wrap guide around 2nd stage tube and tape. Mark tube at arrows. Remove guide and save.
B. Draw straight lines connecting each pair of marks on both tubes. Extend launch lug line full length of 2nd stage tube.



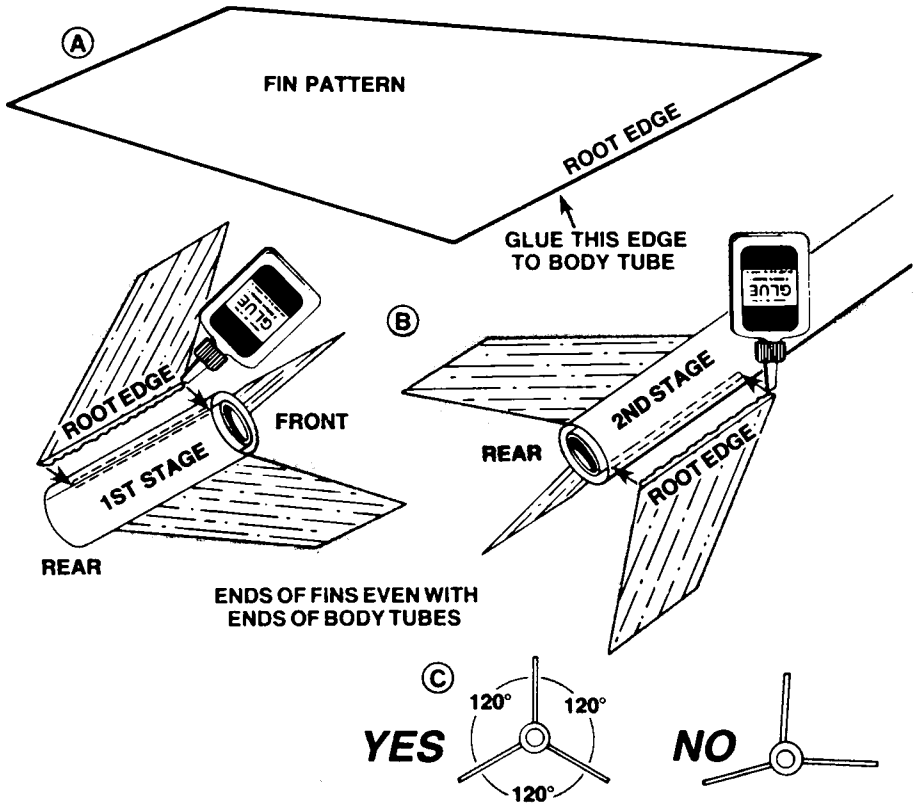
5.

A. Fine sand balsa die-cut sheet. Carefully remove fins by freeing edges with sharp knife.
B. Stack fins together. Sand all edges smooth.



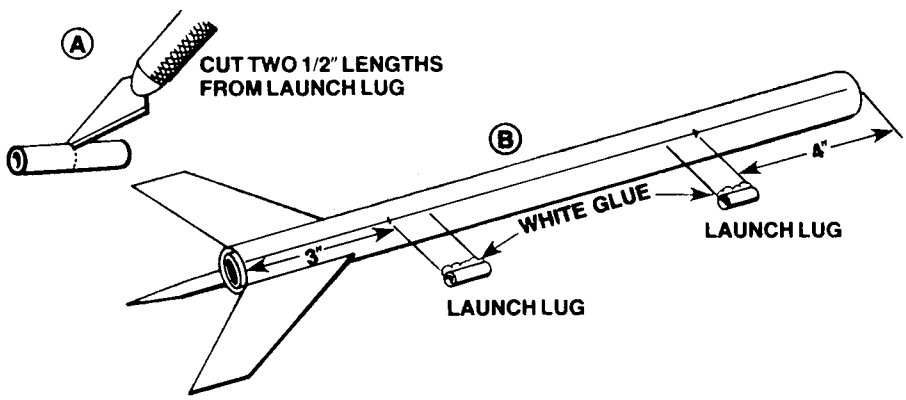
6

A. Lay fins on pattern to find gluing (root) edges.
B. Position and glue fins on alignment lines of 1st and 2nd stages, one at a time. Let each dry several minutes before applying the next fin.
C. Adjust fins to project straight out from tube. Do not set rocket stages on fins while glue is wet.
FINS MUST BE ATTACHED CORRECTLY FOR STABLE FLIGHTS!



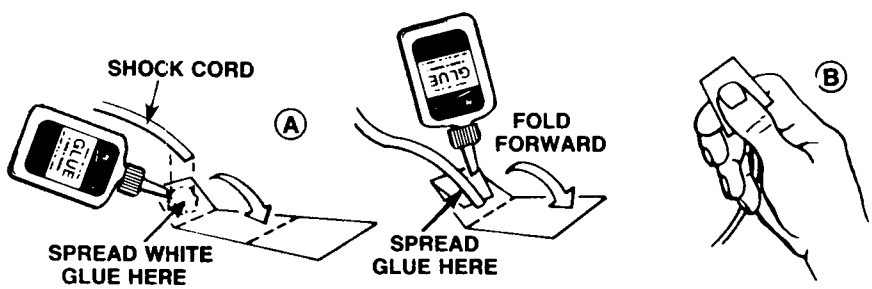
7

A. Cut launch lug into two equal 1/2 inch lengths.
B. Glue one launch lug 3 inches from rear of 2nd stage and other lug 4 inches from front of tube. Align lugs on alignment line and straight with tube.



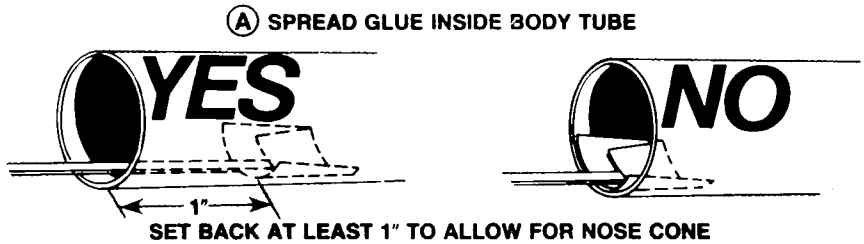
8.

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



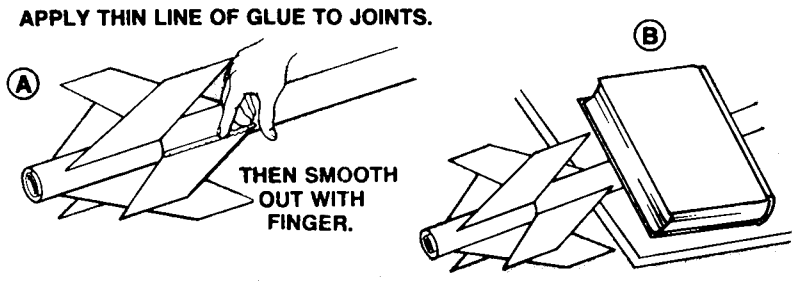
9.

A. Apply glue to inside front of body tube to cover an area no less than 1 inch to 2 inches from end. The glued area should be same size as shock cord mount.
B. Press mount as shown until glue dries.



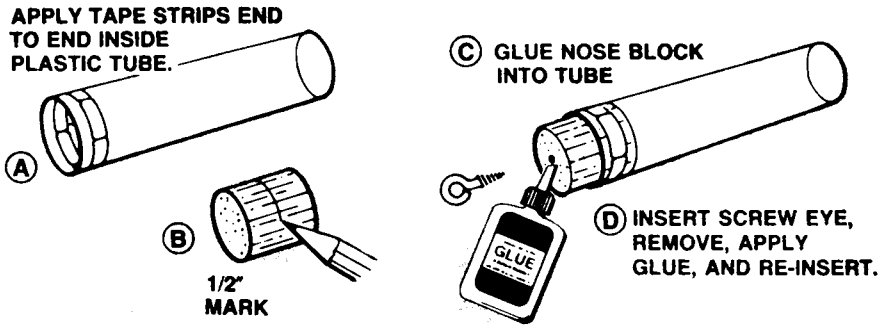
10.

A. Apply a glue reinforcement to each fin/body tube joint and each side of launch lugs.
B. Support rocket as shown until glue dries.



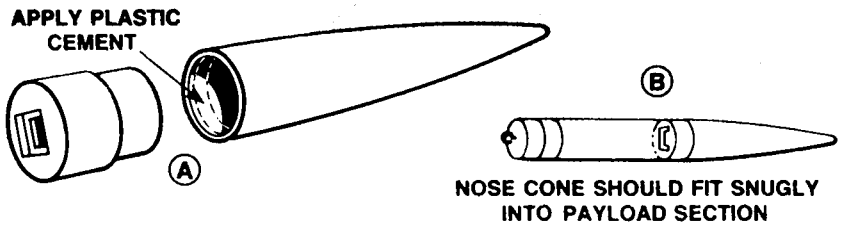
11.

A. Apply 5 tape strips to inside of clear payload tube.
B. Mark nose block at 1/2 inch from one end.
C. Apply glue to nose block and push into clear payload tube up to mark.
D. Insert screw eye into nose block. Remove screw eye, squirt glue into hole, and reinsert screw eye.



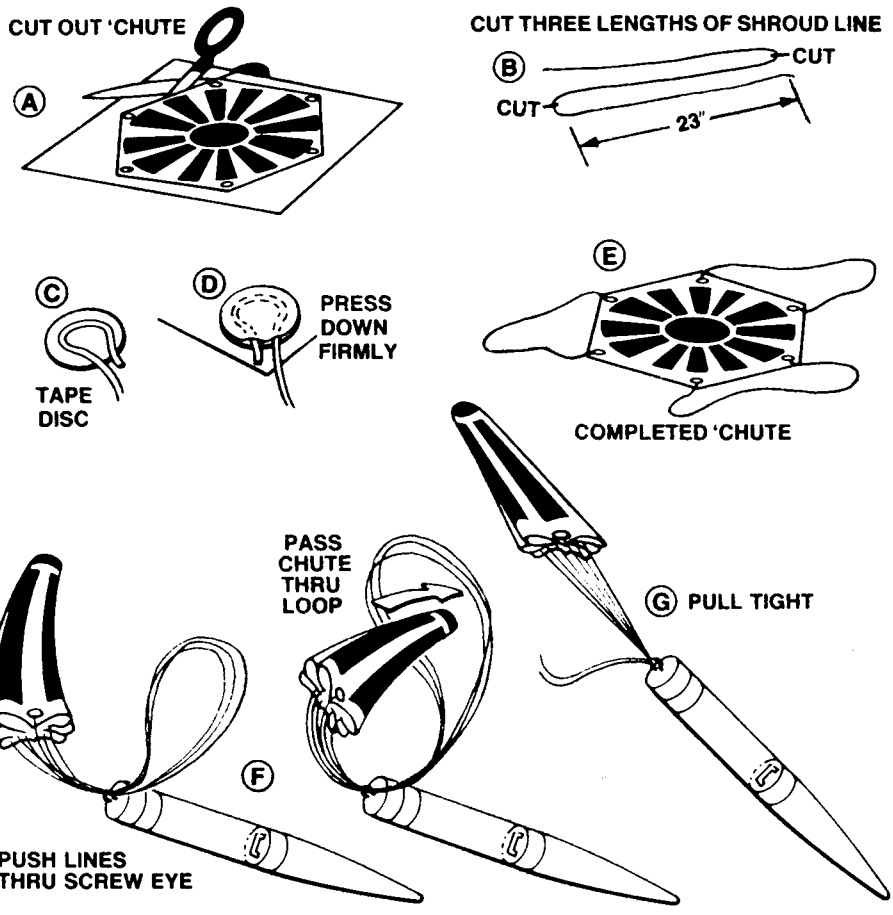
12.

Cement nose cone and nose cone insert together with plastic model cement.
A. Push nose cone insert firmly into nose cone.
B. After cement dries insert nose cone into payload section.



13.

A. Cut out parachute on edge lines.
B. Cut three 23 inch lengths of shroud line.
C. Form small loops with shroud line ends and press onto sticky side of tape discs.
D. Attach tape discs with line ends to top of parachute as shown.
E. Firmly press tape discs into place until both tape discs and parachute material are molded around shroud line loops.
F. Pass shroud line loops through screw eye on payload section. Pass parachute through loop ends and pull lines against the screw eye.
G. Tie free end of shock cord to screw eye.



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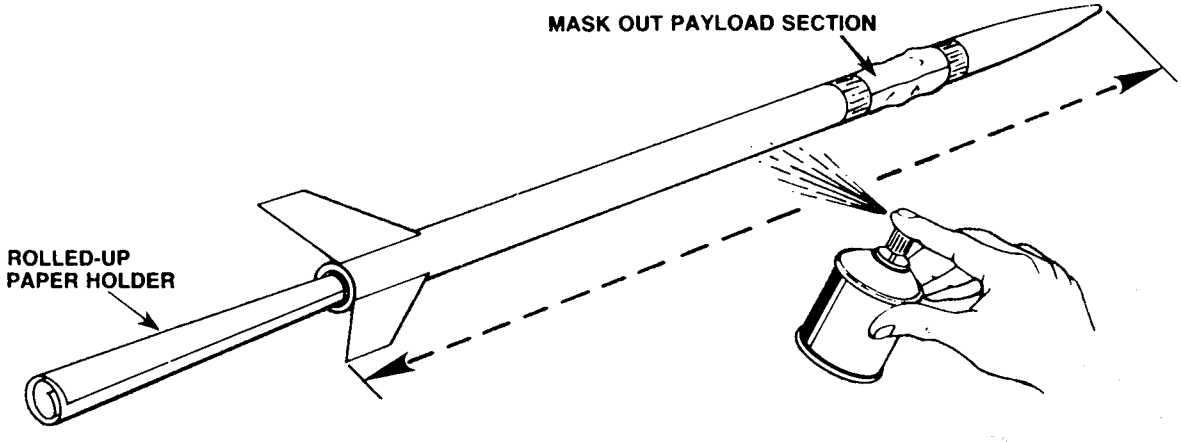
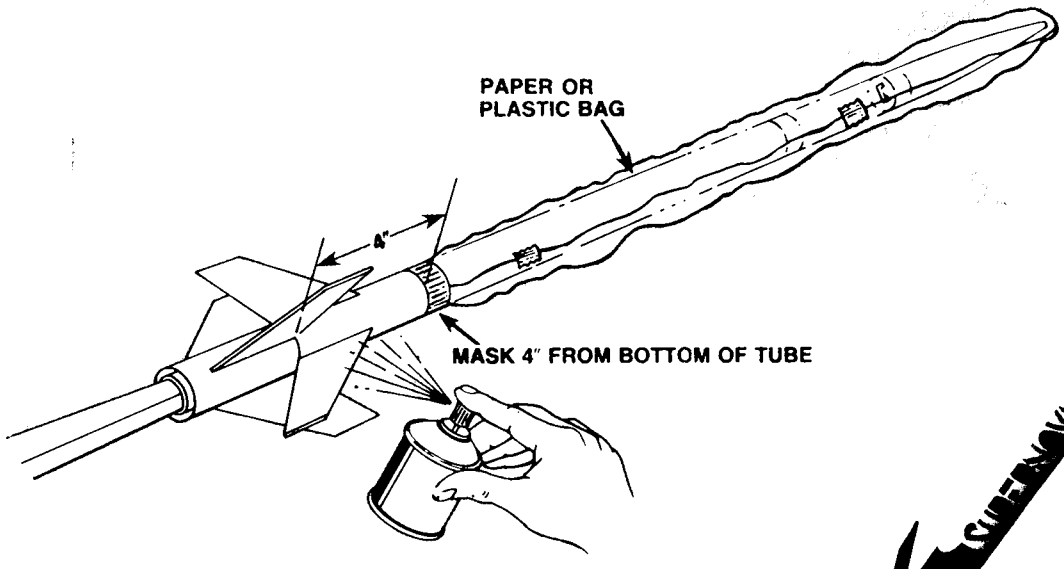
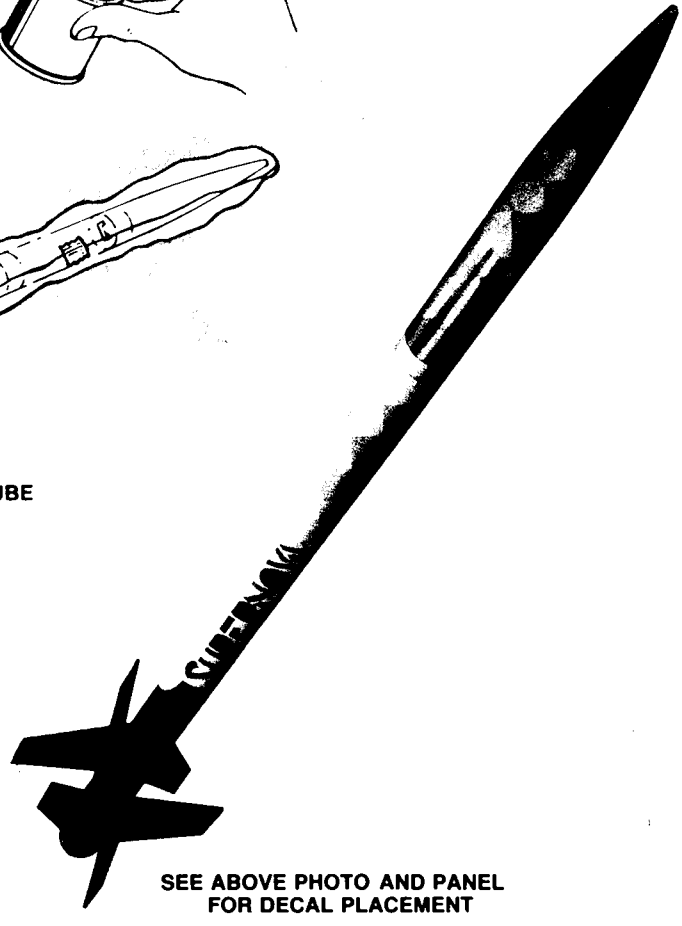
FINISHING YOUR ROCKET

Apply sanding sealer to wood parts with small brush. When sealer is dry, lightly sand all sealed surfaces. Repeat sealing and sanding until balsa grain is filled and smooth. When sanding sealer and glue are completely dry, mask clear payload section and paint entire 2nd stage with silver spray enamel. Allow paint to dry thoroughly, and mask upper part of 2nd stage 4 inches from rear of rocket. Paint 1st stage and lower part of 2nd stage with black spray enamel. Refer to panel photo for color locations and decal placement. To apply decals, cut out each decal, dip in lukewarm water for 20 seconds, and hold until it uncurls. Slip decal off backing sheet and onto model. Blot away excess water.

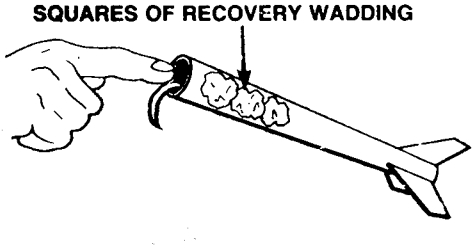


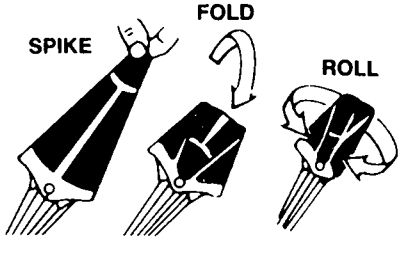


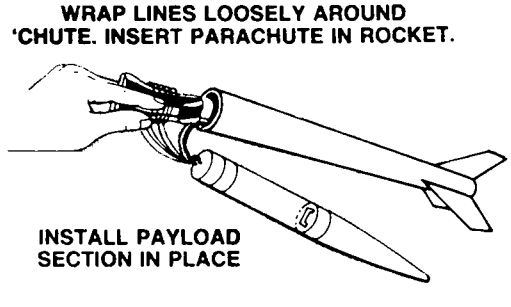


SEE ABOVE PHOTO AND PANEL FOR DECAL PLACEMENT

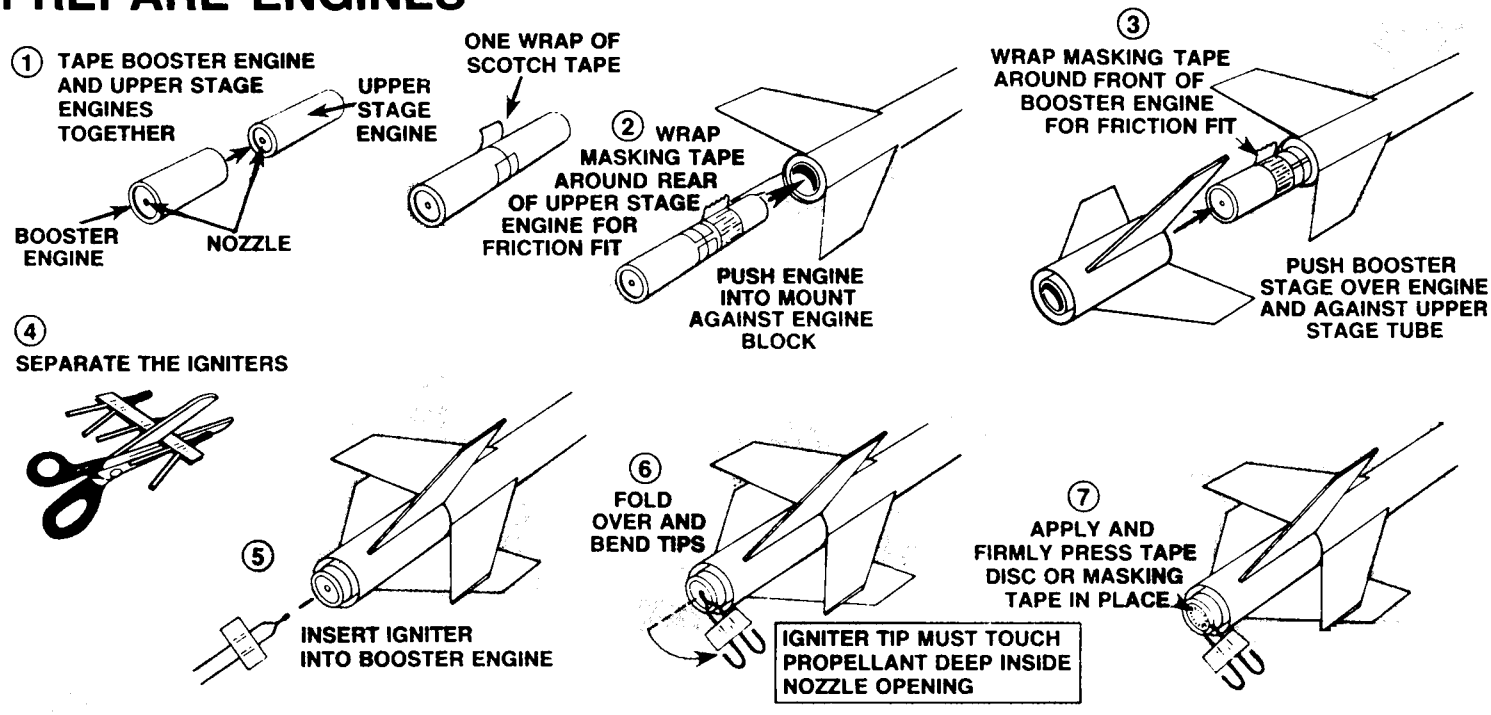
ROCKET PREFLIGHT







PREPARE ENGINES



LAUNCH SUPPLIES

To launch your rocket you will need the following items:
—An Estes model rocket launching system
—Estes Recovery Wadding (No. 2274)
—Recommended Estes Engines:
Single Stage: A8-3, B4-4 (1st Flt.), B6-4, B8-5, C6-5
Upper Stage: A8-5 (1st Flt.), B4-6, B6-6, C6-7
Booster Stage: B6-0 (1st Flt.), C6-0
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 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.

Don't leave parachute packed more than a minute or so before launch during cold weather, [colder than 40° Fahrenheit (4° Celsius)].

Parachute may be dusted with talcum powder to avoid sticking.

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.

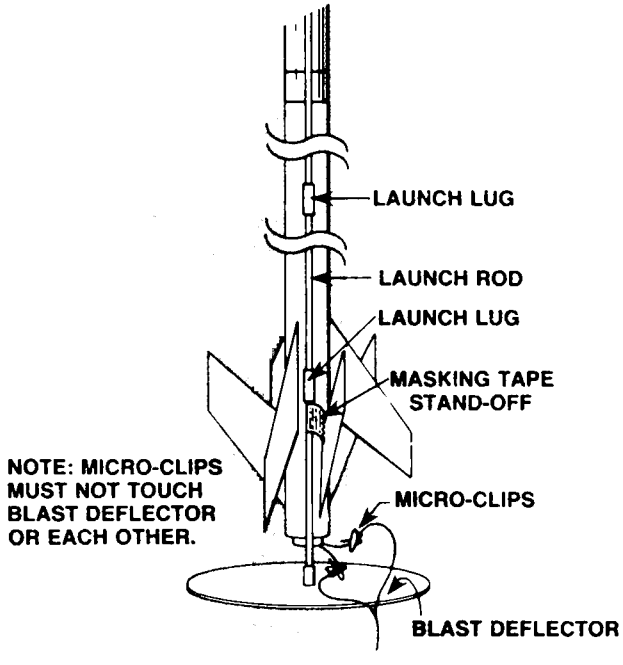
When an ignition failure occurs, remove the safety key from the launch control system and wait one minute before approaching the rocket. Remove the expended igniter from the engine and install a new one. Be certain the coated tip is in direct contact with the engine propellant, then tape the igniter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

FOR YOUR SAFETY AND ENJOYMENT

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

*National Association of Rocketry-The Hobby Industry of America

COUNTDOWN AND LAUNCH



⑩ REMOVE SAFETY KEY to disarm the launch controller.

⑨ Remove safety cap and slide launch lugs 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).

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—Replace cap on rod.

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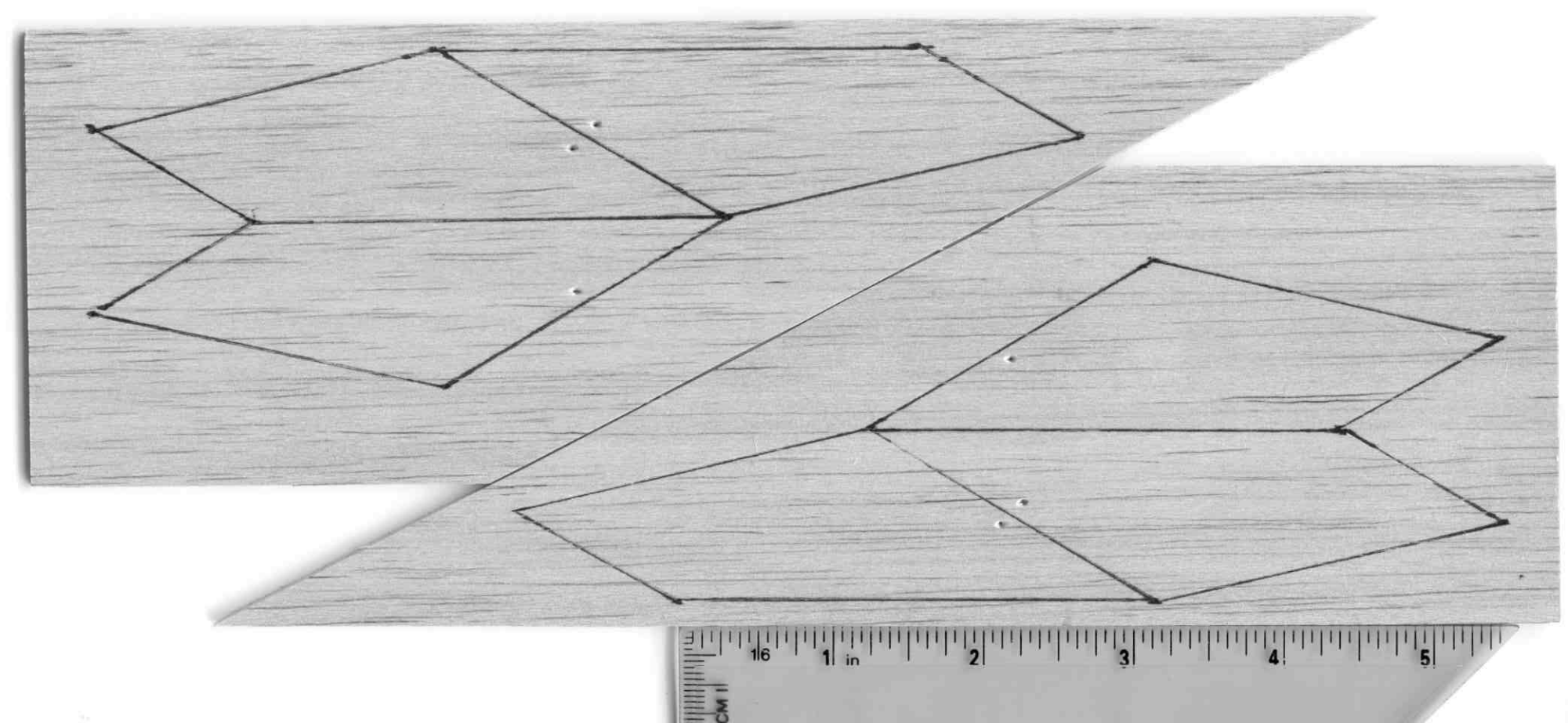
1/6
1 in
2
3
4
5
CM 1

Supernova Estes # 2011 Parts Measurements List

Quanity	Part Description	Length
1	Main Body Tube	16"
1	1st Stage Body Tube	2 3/4"
2	Engine Mount Tubes	2 3/4"
1	Clear Payload Tube	4"
1	Balsa Nose Block	1 1/8"
1	1/8" Launch Lug	1 1/4"
1	Rubber Shock Cord	11 1/2"
1	1/8" Eye Screw	1/2"

**Note: Balsa Thickness is 3/32"

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ESTES

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PN 37339

SUPER NOVA

TWO-STAGE FLYING MODEL ROCKET

SKILL LEVEL 2

LAUNCH A PAYLOAD TO 1800 FEET!

ESTES

ESTES INDUSTRIES
PENROSE, CO 81240 USA

- POP-N-GO STAGING
- See Thru Cargo Area
- Returns Via 13 Inch 'Chute
- Sleek Balsa Fins

Length: 37 in. (94.0 cm)
Dia: .976 in. (24.8 mm)
Weight: 1.7 oz. (47 g)

Recommended Engines:
FIRST STAGE: B6-0 (Pod Flight), or C6-0
SECOND STAGE: A8-3 (Pod Flight), B4-4, B6-4, or C6-7
OR
SINGLE STAGE ONLY: A8-3, B4-4 (Pod Flight), B6-4, B6-6, or C6-5

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