ESTES®
A DAMON COMPANY

RECRUITER™

FLYING MODEL ROCKET

SKILL LEVEL 3
Recommended for the Advanced Modeler.

- **FIRST LINE DEFENSIVE MIRV INTERCEPTOR**
- **18 Inch Recovery Parachute**
- **Quick-Release Engine Mount**
- **Die Cut Balsa Fins**

Length: 25 in. (63.5 cm)
Dia: 1.637 in. (41.6 mm)
Weight: 2.58 oz. (73 g)

Recommended Engines:
B4-4 (First Flight),
B6-4, or C6-5

This is a model kit requiring assembly. Glue and finishing supplies, launch system and engines for flight are not included.

OVER 2 FEET TALL

6 SECOND "INTERCEPT" FLIGHTS TO 550 FEET!

ESTES INDUSTRIES
PENROSE, CO 81240 USA

THE HOBBY INDUSTRY OF AMERICA PROMOTES ACHIEVEMENT

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#2013

A DAMON COMPANY
ESTES INDUSTRIES
1295 H Street
Penrose, CO 81240

RECRUITER™

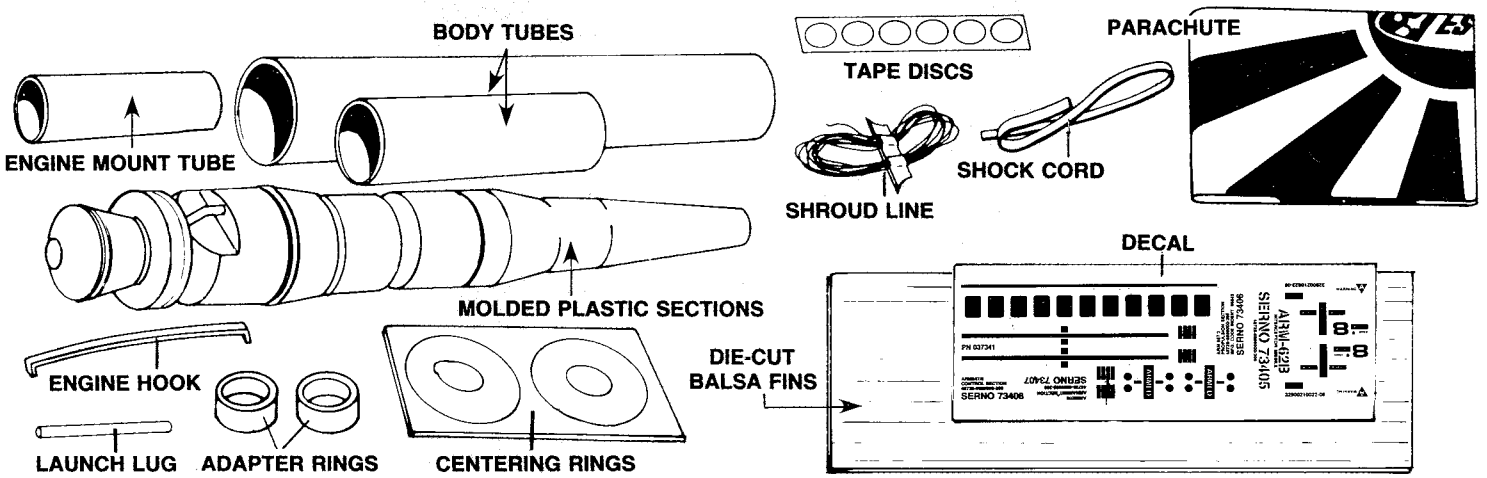
FLYING MODEL ROCKET #2013

ASSEMBLY TIP

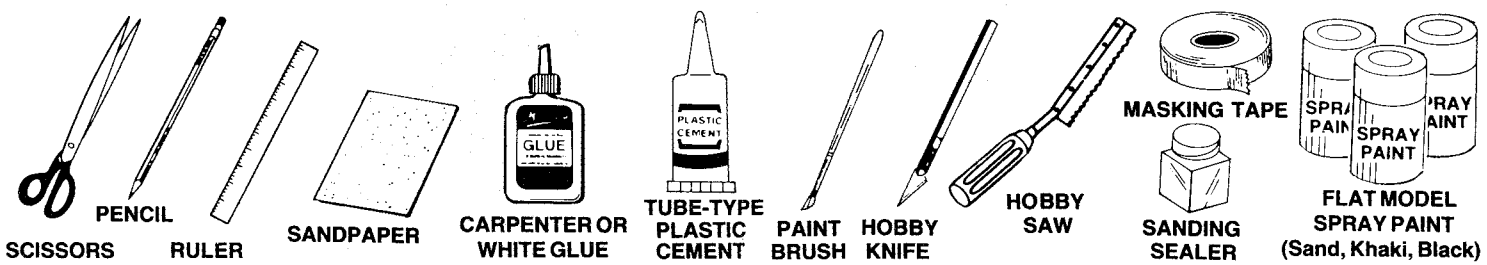
Read all instructions before beginning work on your model. Make sure you have all parts and supplies. Test-fit all parts together before applying any glue. If any parts don't fit properly, sand as required for precision assembly.

PARTS AND SUPPLIES

Locate the parts shown below and lay them out on the table in front of you.



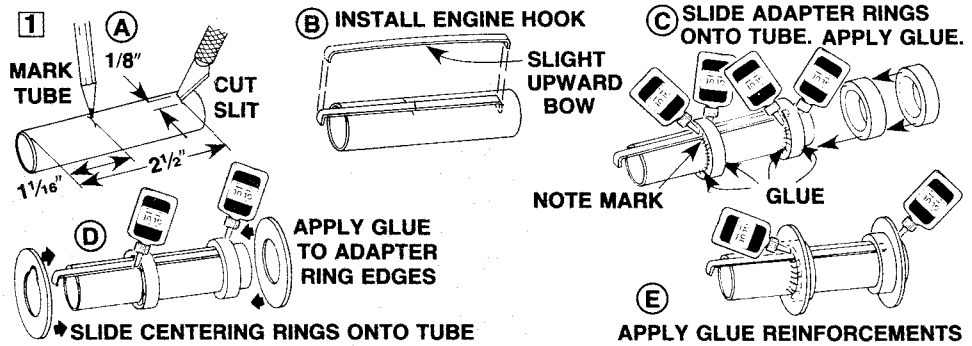
In addition to the parts included in the kit you will also need:



ROCKET ASSEMBLY

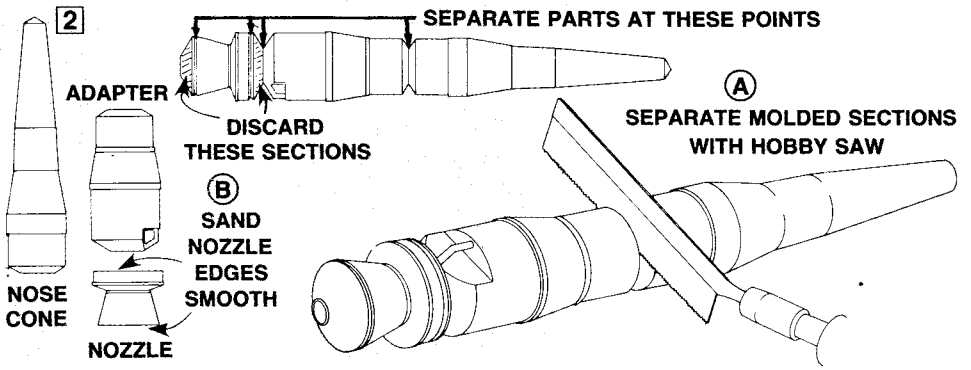
1.

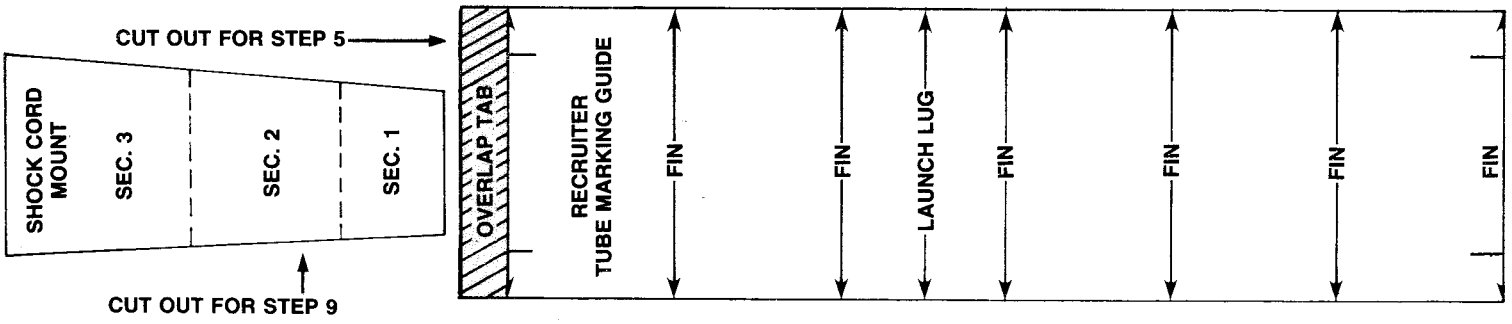
A. Mark engine mount tube 1 1/16 inches and 2½ inches from one end then cut 1/8 inch long slit at 2½ inches mark.
B. Insert one end of engine hook into slit.
C. Slide one adapter ring onto engine mount tube, stopping at mark. Slide remaining adapter ring onto engine mount tube just over forward end of engine hook. Apply glue to both sides of both rings where they touch the tube.
D. Apply glue to adapter ring edges as shown. Slide centering rings onto engine mount tube and against adapter rings.
E. Add glue reinforcements to centering rings as shown.



2.

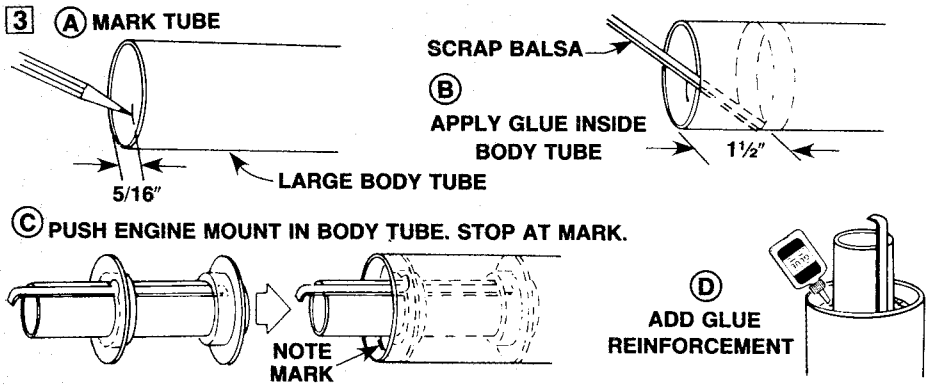
A. Separate the plastic nose cone, adapter, and nozzle sections using a hobby saw. Discard the sections indicated.
B. Sand indicated nozzle edges smooth.





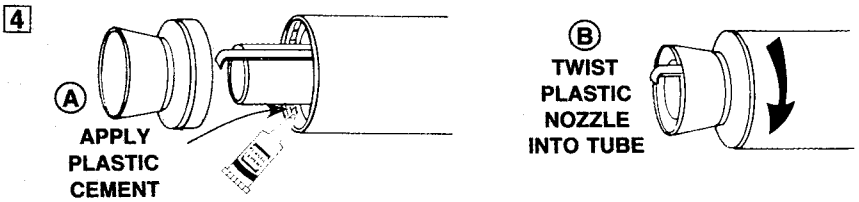
3.

A. Mark inside large body tube 5/16 inch from one end.
B. Smear a band of glue around the inside of the tube 1½ inches from the marked end.
C. Push engine mount into the tube stopping when rear centering ring is at mark.
D. Apply glue reinforcement where ring touches tube. Allow glue to dry.



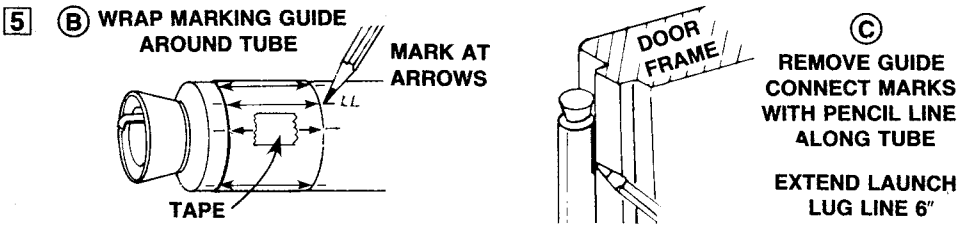
4.

A. Apply plastic cement around the inside of the body tube as shown.
B. Install plastic nozzle section with a twisting motion.



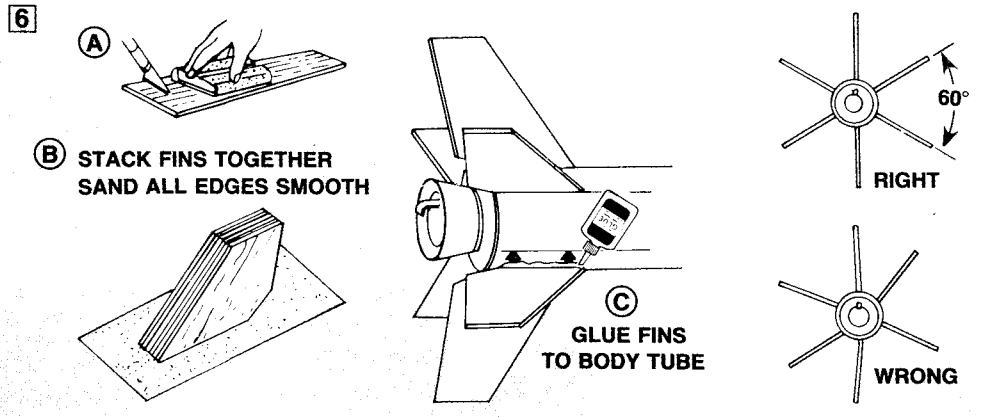
5.

A. Cut out tube marking guide from top of page.
B. Wrap guide around the tube and mark tube at arrows. Remove guide.
C. Draw straight lines connecting each pair of marks. Extend launch lug line 6 inches.



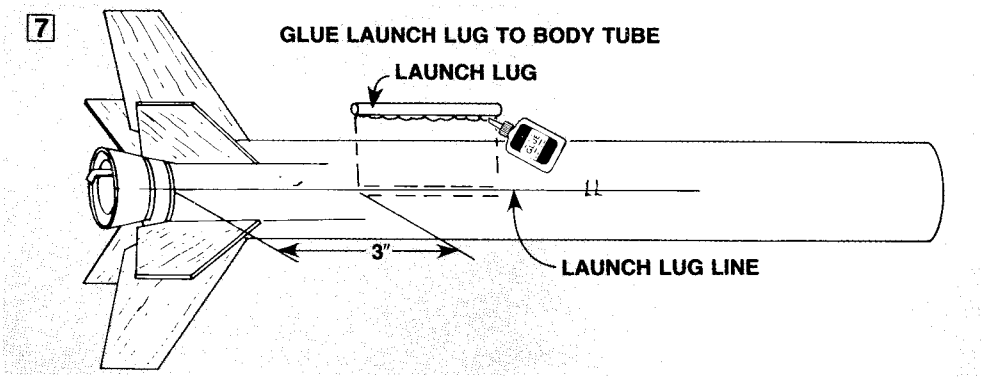
6.

A. Fine sand balsa die-cut sheet. Carefully remove parts by freeing edges with sharp knife.
B. Stack fins together. Sand all edges smooth.
C. Apply glue to the root edge of a fin. Glue fin next to alignment line. Repeat for other fins. Apply each fin on same side of its fin alignment line. Let each fin dry several minutes before applying the next fin.
D. Looking at the rocket from the rear, the fins should be in the positions shown with the trailing edge of each fin even with the end of the tube.



7.

A. Glue launch lug on launch lug line 3 inches from end of body tube as shown.



8.

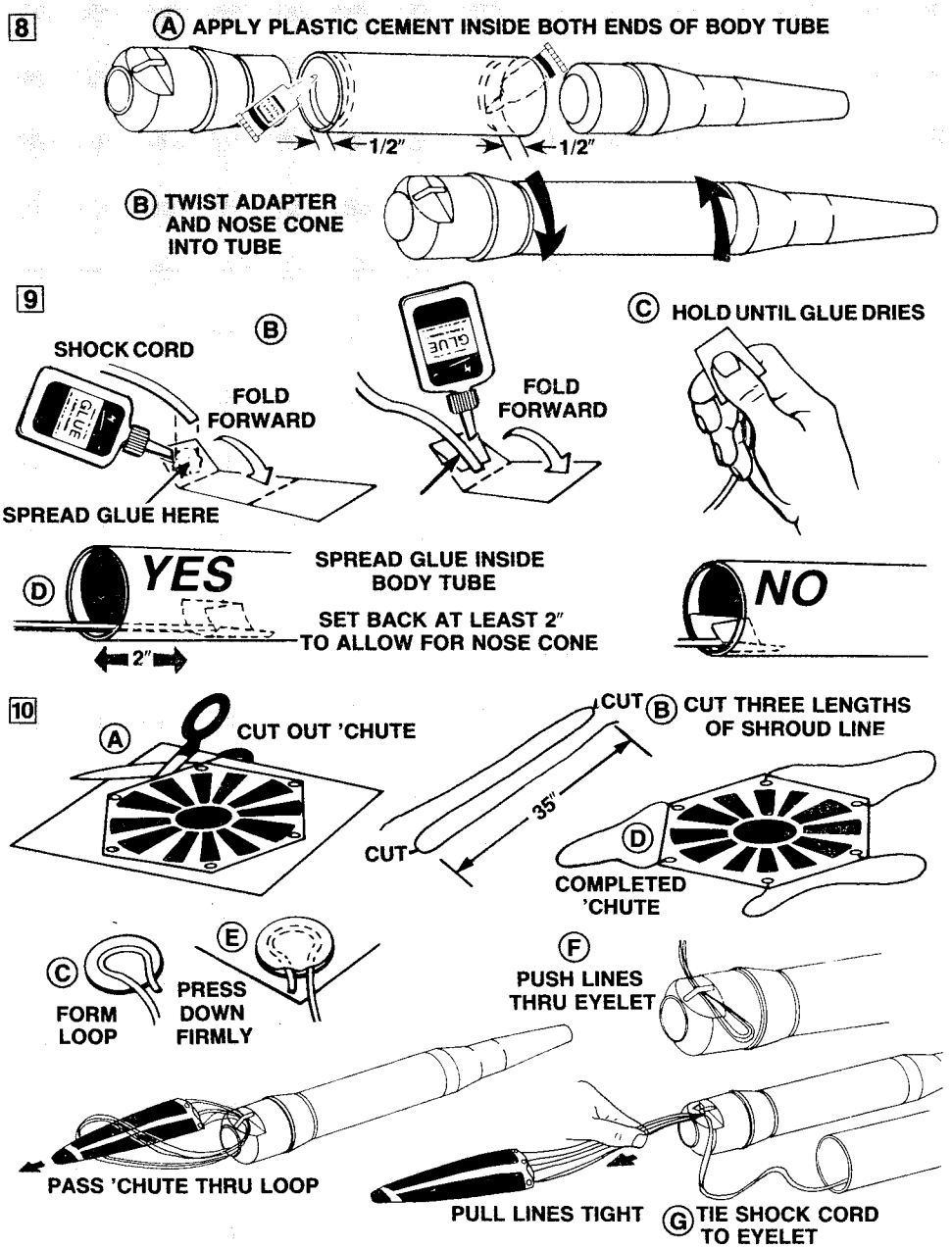
A. Apply plastic cement around the inside of both ends of the remaining body tube.
B. Insert plastic nose cone and adapter sections into tube with a twisting motion.

9.

A. Cut shock cord mount from top of page 2.
B. 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.
C. Clamp unit together with fingers until glue sets.
D. Apply glue inside front of body tube to cover an area no less than 2 to 3 inches from end. The glued area should be same size as shock cord mount. Press mount firmly into glue as shown. Hold until glue sets.

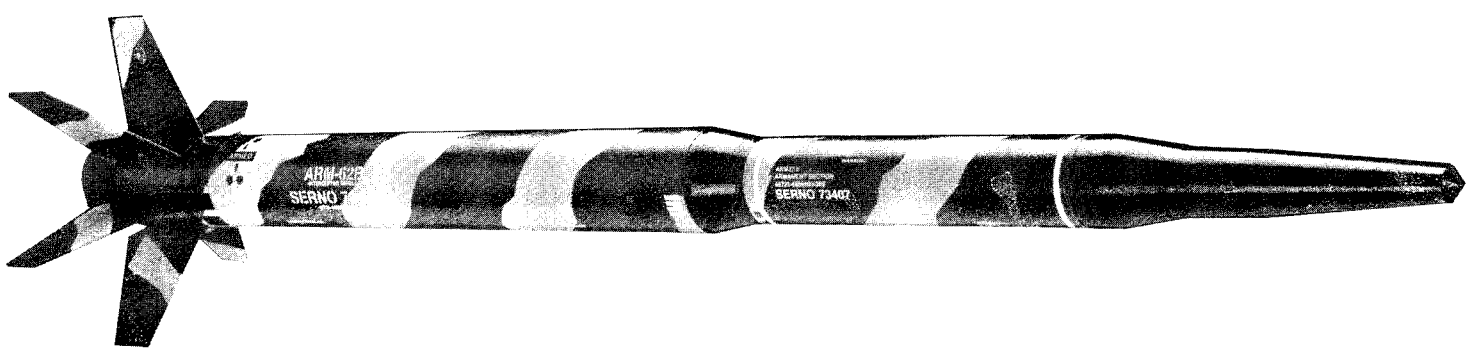
10.

A. Cut out parachute on edge lines.
B. Cut three 35 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 eyelet on adapter. Pass parachute through loop ends and pull lines against the adapter eyelet.
G. Tie free end of shock cord to adapter eyelet.

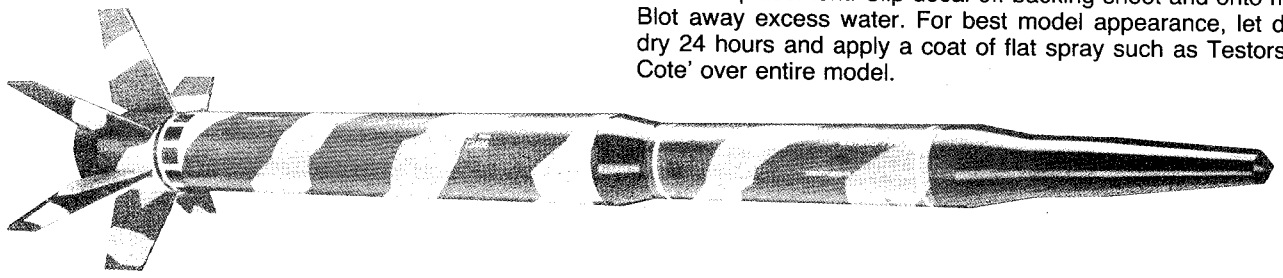


FINISHING YOUR ROCKET

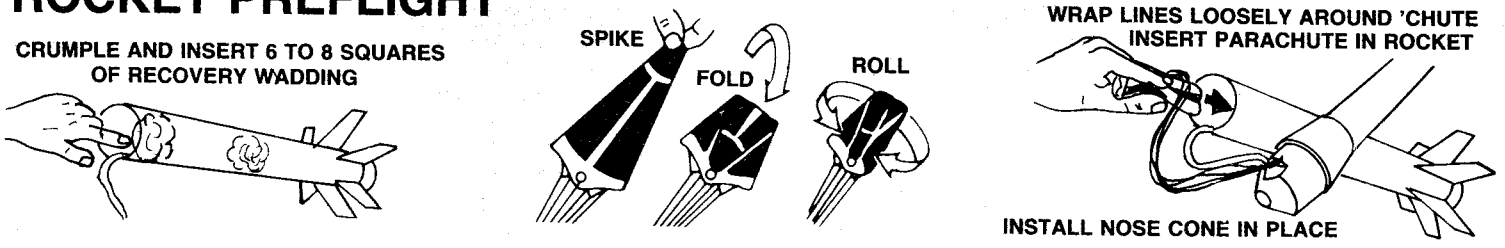
Apply sanding sealer to balsa fins. Allow to dry and sand lightly. Repeat sealing and sanding until balsa grain is filled and smooth. When sanding sealer and glue are completely dry, paint entire model with either modelers flat 'Sand', light blue, or gray and allow to dry. Tear long strips of paper about 1 inch wide so that they have jagged edges. Tape strips to nose section, wrap tightly around model in a spiral fashion, and tape at rear of model. Add paper and tape to fins at random. Spray second color of modelers flat such as Khaki, Dark Earth, dark green, or dark blue over entire model. Allow the paint to dry then remove paper and tape. Paint nose cone, adapter section and nozzle flat black.



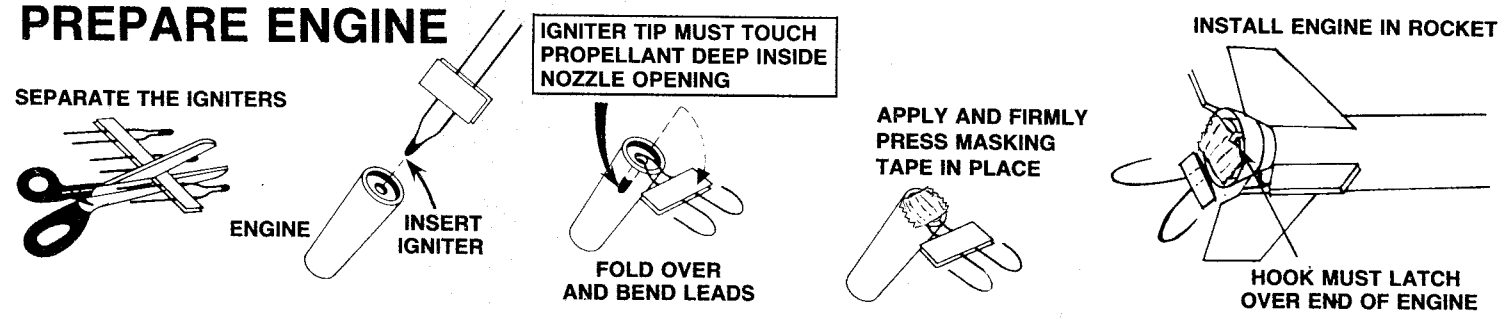
Let paint dry overnight before applying decals. To apply decals, cut out each, dip in lukewarm water for about 20 seconds, and hold until it uncurls. Refer to photograph and/or front of display panel for decal placement. Slip decal off backing sheet and onto model. Blot away excess water. For best model appearance, let decals dry 24 hours and apply a coat of flat spray such as Testors 'Dull Cote' over entire model.



ROCKET PREFLIGHT



PREPARE ENGINE



LAUNCH SUPPLIES

To launch your rocket you will need the following items:
—Estes Electrical Launch System and Launch Pad
—Estes Recovery Wadding No. 2274
—Recommended Engines: B4-4, B6-4 and C6-5
Use B4-4 for first flight to become familiar with your rocket's flight pattern. *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.

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.

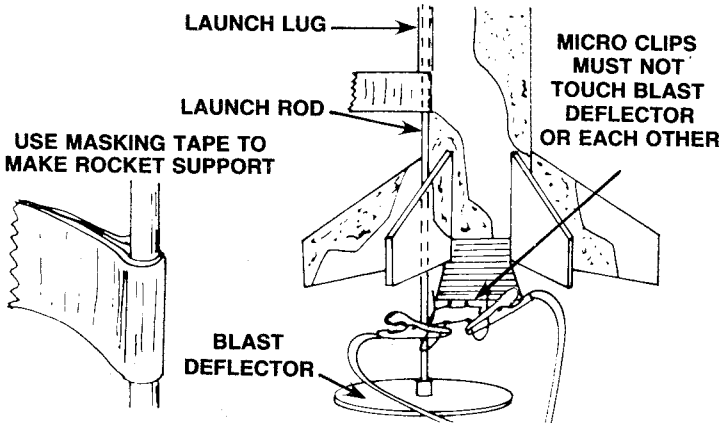
When an ignition failure occurs, remove the safety key from the launch control system and wait one minute before approaching the rocket. Remove the expended igniter from the engine and install a new one. Be certain the coated tip is in direct contact with the engine propellant, then tape the igniter 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).

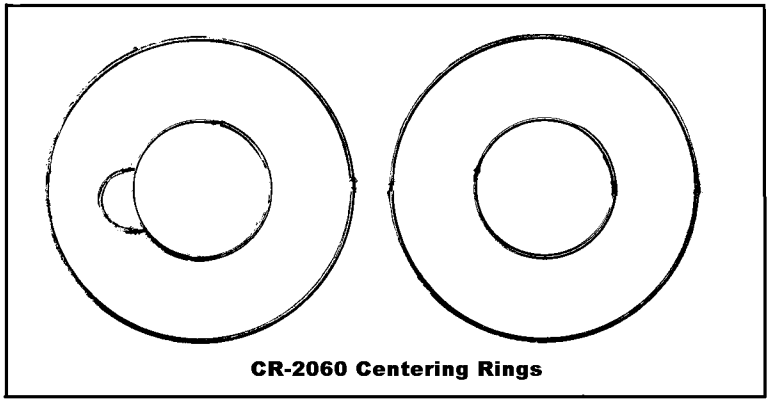
⑥ INSERT SAFETY KEY to arm the launch controller.

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

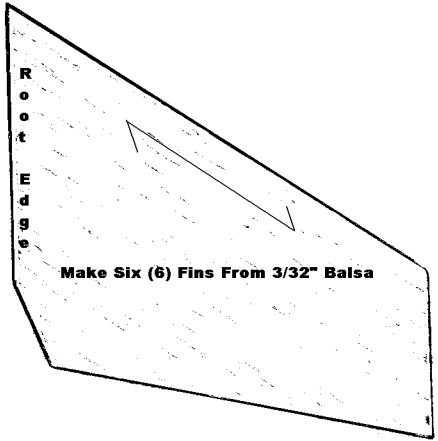
LAUNCH!!! PUSH AND HOLD LAUNCH BUTTON UNTIL ENGINE IGNITES

Remove safety key—Replace cap on launch rod.

Estes kit 2013: **Recruiter**
Produced: **1989 - 1992**



CR-2060 Centering Rings



WARNING
WARNING
WARNING
WARNING
WARNING
WARNING
WARNING
ARMED
ARMED
ARMED
ARMED
ARM-62B
INTERCEPTOR MISSILE
SERNO 73405
48725-6889000-206
SERNO 73406
ARM 6873
PROPULSION SECTION
48725-6889000-206
MFG. CODE INDENT. 66842
PN 037341
ARM64/8
CONTROL SECTION
48725-6889000-206
SERNO 73408
ARM27/8
ARMAMENT SECTION
48725-6889000-206
SERNO 73407

Estes #2013 Recruiter … Parts List

Qty	Description	Part #	Comments
1	Main Body Tube	BT-60	12.5” long
1	Upper Body Tube	BT-55	5 5/16” long
1	Plastic Nose Cone/Tail Cone		Same as used in Beta Launch vehicle
1	18mm Motor Mount Tube	BT-20	18mm x 3 1/2” long
2	Centering Ring	CR-2060	
2	Adapter Rings	CR-2050	
1	Motor Hook	EH-2	2 3/4” motor hook
1	Launch lug	LL-2B	1/8” x 2”
1	Parachute	PK-18	18”, plastic paracheet with 6 shroud lines
1	Shock Cord		Need minimum of 24” of 1/8” or 3/16” elastic
1	Decal Sheet	037341	
1	Die-cut balsa fin sheet, 3/32”		See partterns page