



ESTES SPACE PROGRAM™

MEMBERSHIP

INCLUDES:

- **Exclusive** BIG 17.5" YANKEE CLIPPER™ FLYING MODEL ROCKET KIT
Skill Level 1
12" 'Chute Recovery
Recommended Engines:
A8-3 (First Flight), B4-4, B6-4, B8-5, or C6-5
- **ATTRACTIVE MEMBERSHIP CERTIFICATE/ACHIEVEMENT RECORD**
Provides Permanent Record of Awards Earned
- **MODEL ROCKET NEWS MAGAZINE**
Special Edition
- **ACHIEVEMENT AWARDS PROGRAM**
Earn Distinctive Awards as You Gain Skills and Knowledge
- **MEMBERSHIP CARD**
Identifies You as an Official ESP Member.
- **OFFICIAL ESP CLOTH PATCH**
- **OFFICIAL ESP EMBLEM DECALS**
- **ESP OFFICIAL STATIONERY**



RECEIVE ALL THIS...
PLUS THE OPPORTUNITY
TO EARN ACHIEVEMENT AWARDS...

JOIN NOW

Model kit requires assembly.
Glue and finishing supplies,
launch system and engines
for flight are not included.

#1443



A DAMON COMPANY

ESTES INDUSTRIES
PENROSE, CO 81240 USA

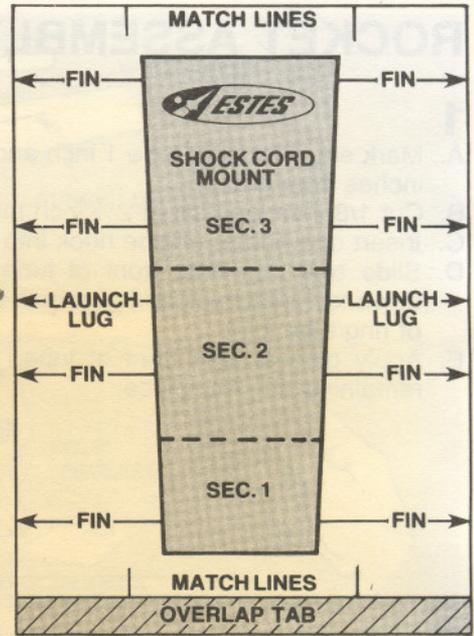




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Yankee Clipper™

OFFICIAL ROCKET OF ESTES SPACE PROGRAM™



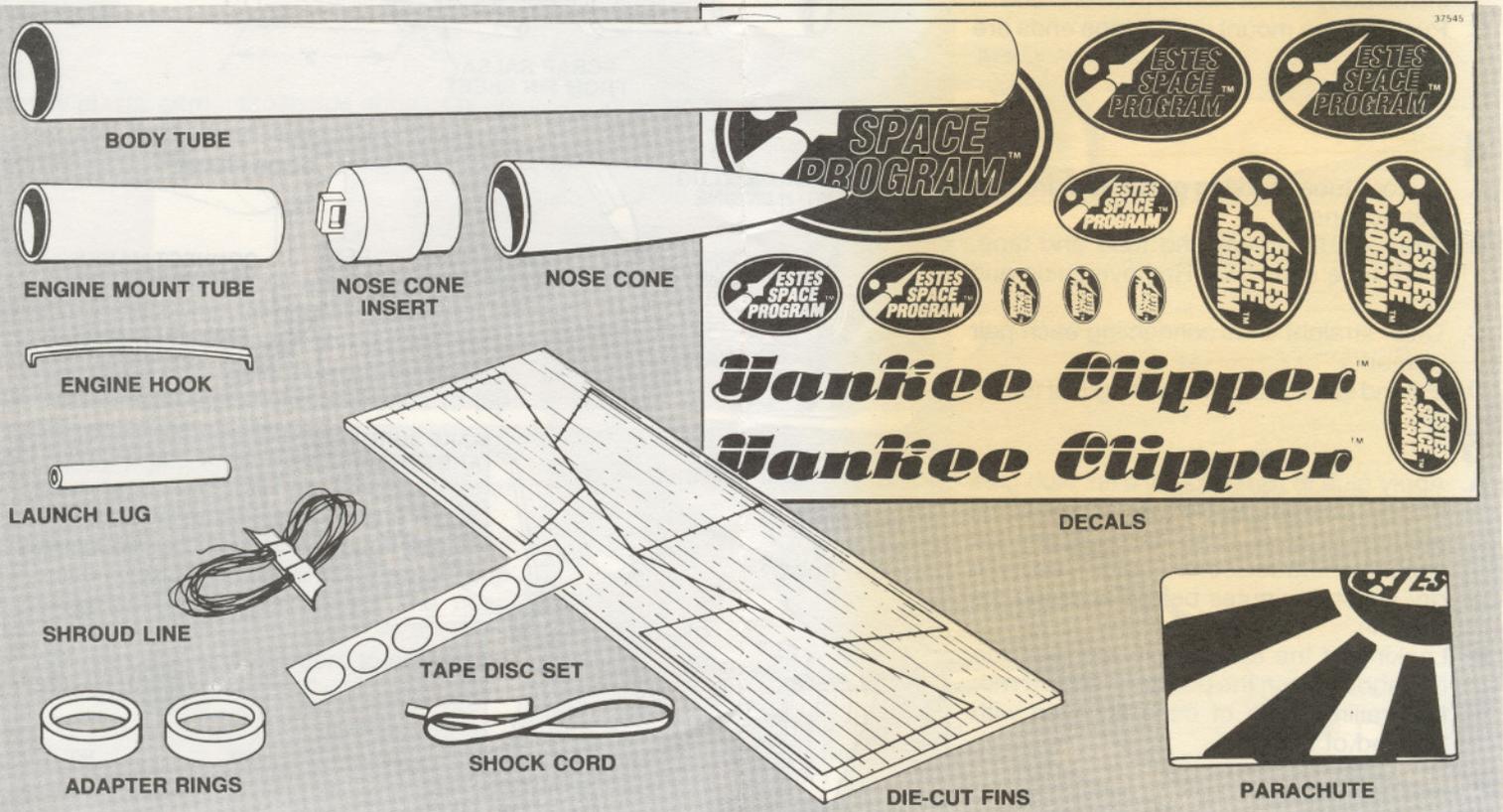
FIN MARKING GUIDE

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

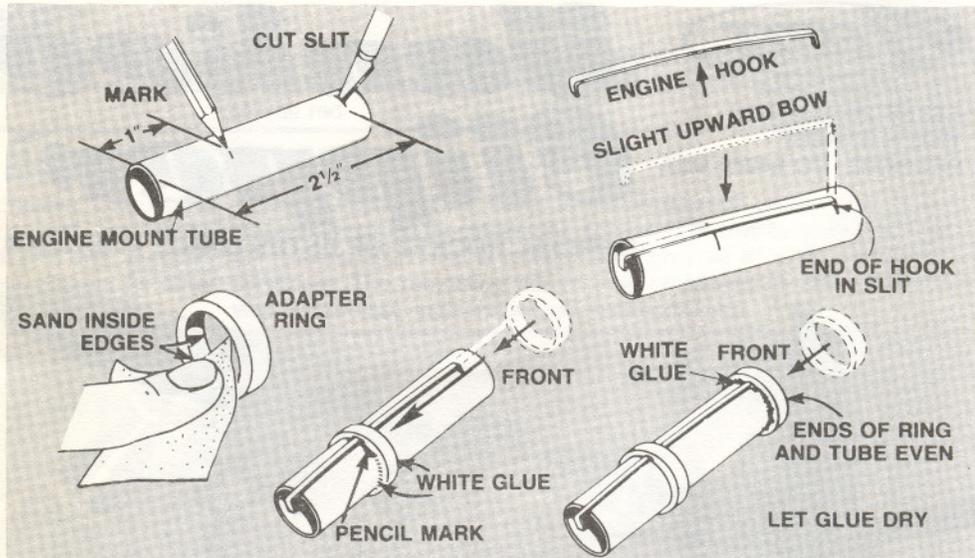
Locate the parts shown below and lay them out on the table in front of you. In addition to the parts included in the kit you will also need:



ROCKET ASSEMBLY

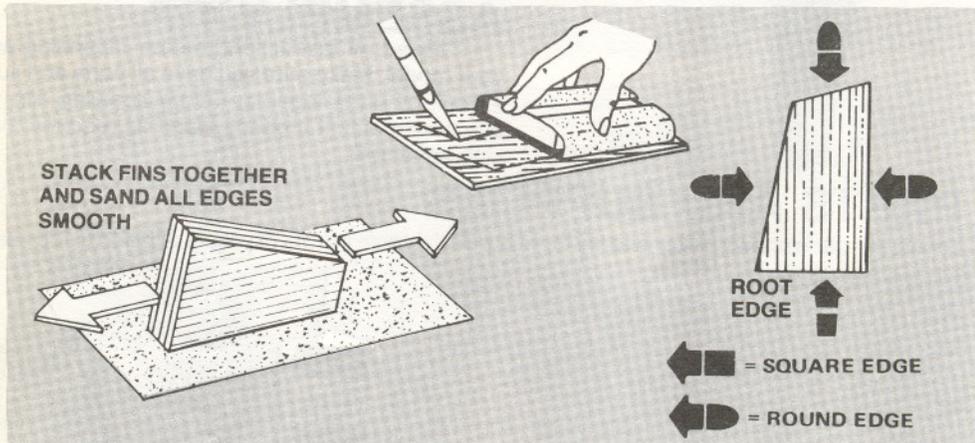
1

- Mark engine mount tube 1 inch and 2½ inches from one end.
- Cut 1/8 inch long slit at 2½ inch mark.
- Insert one end of engine hook into slit.
- Slide one ring onto front of tube and down to 1 inch mark and glue both sides of ring/tube joint.
- Apply glue around front of tube. Slide remaining ring into place.



2

- Fine sand balsa die-cut sheet. Carefully remove fins by freeing edges with sharp knife.
- Stack fins together. Sand all edges smooth.
- Sand all edges of the fins round, except for the root edges. Leave root edges square.



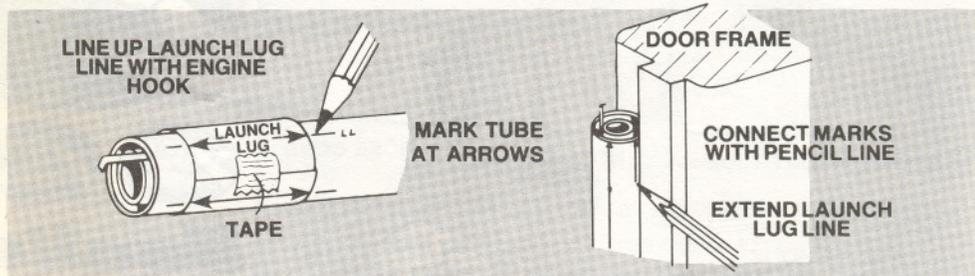
3

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



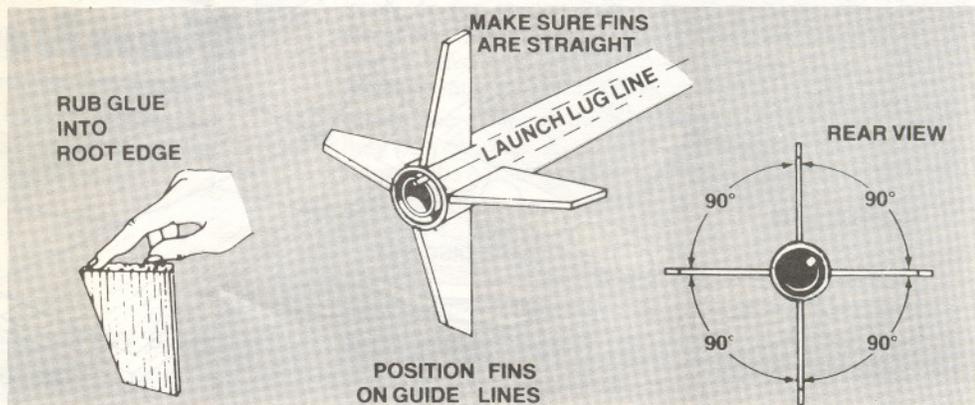
4

- Cut out tube marking guide from front of instructions.
- Wrap guide around the tube and tape. Mark tube at arrows. Remove guide and save.
- Draw straight lines connecting each pair of marks.
- Extend launch lug line full length of tube.



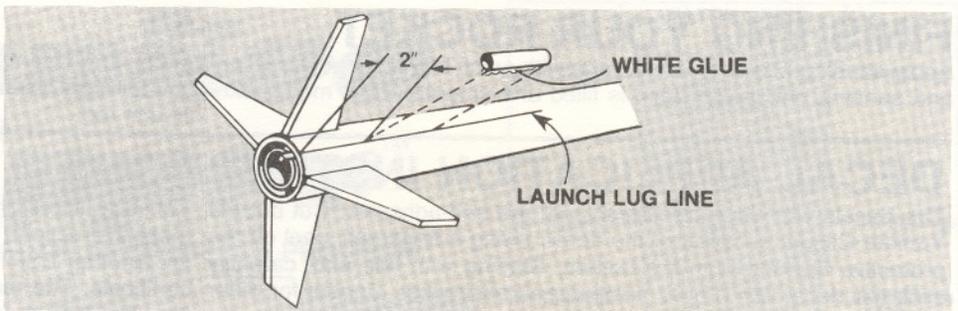
5

- Apply glue to root edge of a fin. Rub glue into balsa grain. Apply a small additional amount of glue. Glue fin on alignment lines. Repeat for other fins. Let each fin dry several minutes before applying the next fin.
- 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.



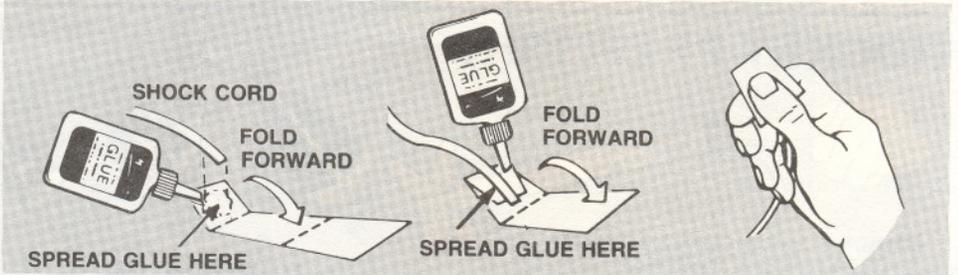
6

Glue launch lug straight on launch lug line 2 inches from rear of tube as shown.



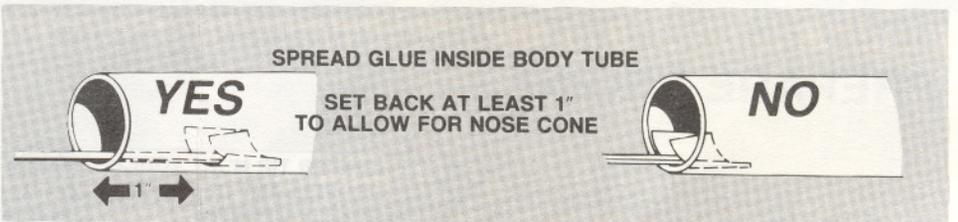
7

- A. Cut shock cord mount from tube marking guide.
- 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.



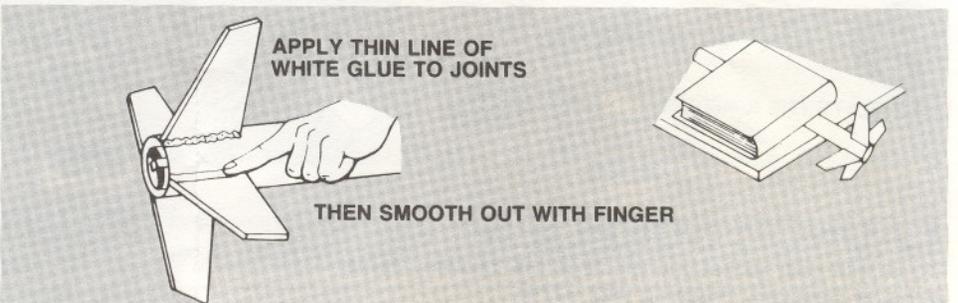
8

- 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 firmly into glue as shown.
- C. Hold until glue sets.



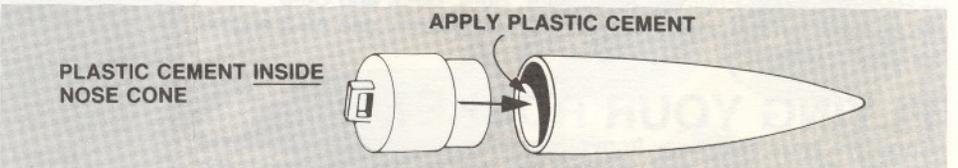
9

- 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.



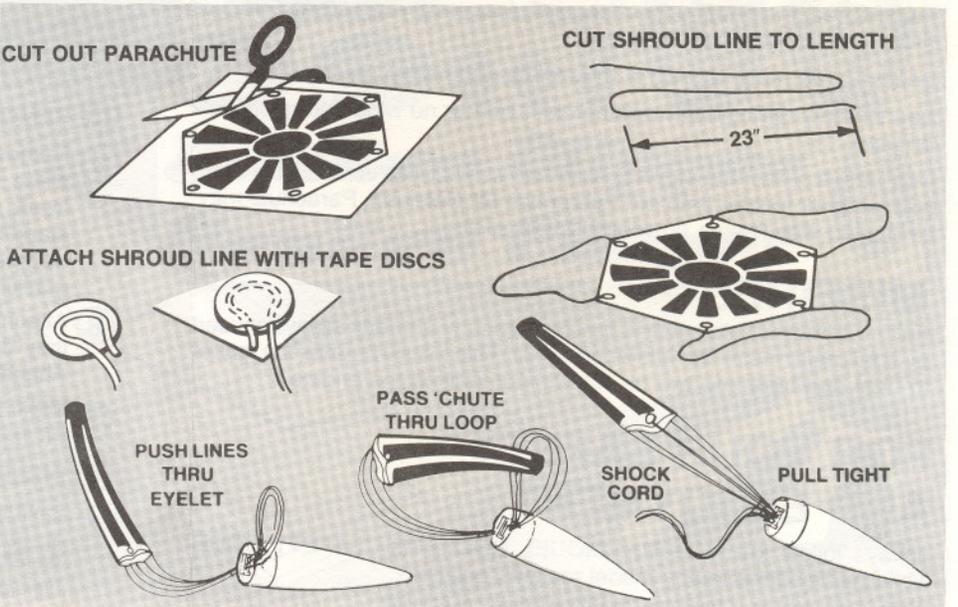
10

Apply plastic cement to inside edge of nose cone and then insert nose cone insert as shown.



11

- 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 eyelet on nose cone. Pass parachute through loop ends and pull lines against the nose cone.
- G. Tie free end of shock cord to nose cone eyelet.



FINISHING YOUR ROCKET

Apply sanding sealer to wood parts with small brush. Repeat sealing and sanding until balsa grain is filled and smooth. Paint model with

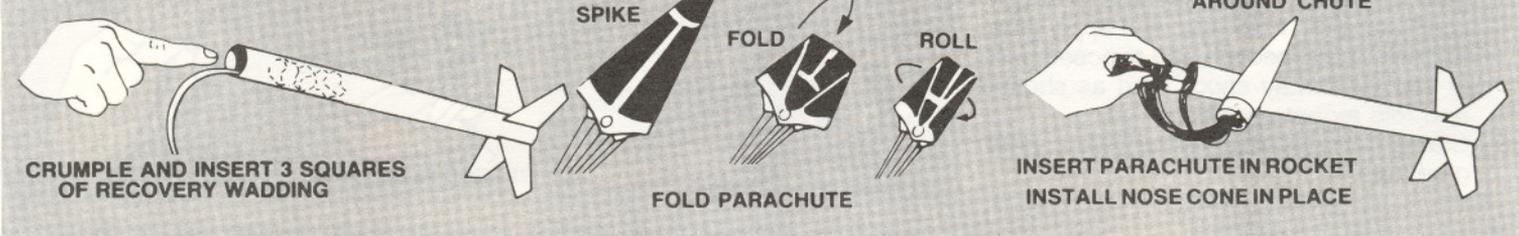
white spray enamel. Follow instructions on spray can for best results. Let paint dry overnight before masking to paint nose cone blue and fin unit red.

DECAL APPLICATION INSTRUCTIONS

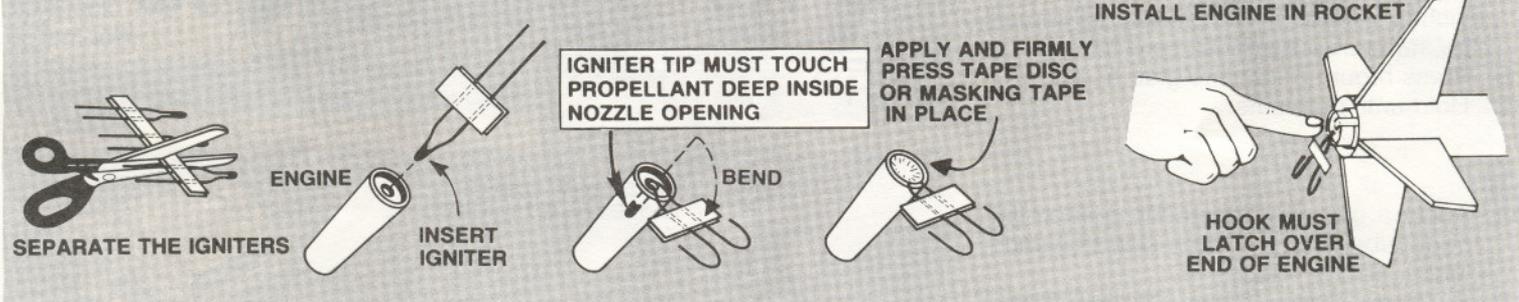
The decals with your membership kit are self-adhesive. Cut out the Yankee Clipper sections of the decal. Using a fingernail, peel off the protective backing from the bottom. Starting with one end, carefully stick the decal into proper position on your rocket. Repeat for other

Yankee Clipper decals. Refer to the photograph on the front page of these instructions for placement. Add an ESP oval to one side of each fin. Another ESP oval is to be placed on your 8" x 10" membership certificate. The remaining decals may be placed on other rockets in your Estes fleet, your range box, notebook, etc.

ROCKET PREFLIGHT



PREPARE ENGINE



LAUNCH SUPPLIES

To launch your rocket you will need the following items:

—Estes Recovery Wadding (No. 2274)

—Recommended Engines: A8-3, B4-4, B6-4, B8-5, and C6-5

To become familiar with your rocket's flight pattern, use A8-3 engine for your first flight.

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 before launch during cold weather [colder than 40° Fahrenheit (4° Celsius)]. Parachute may be dusted with talcum powder to avoid sticking.

MISFIRES

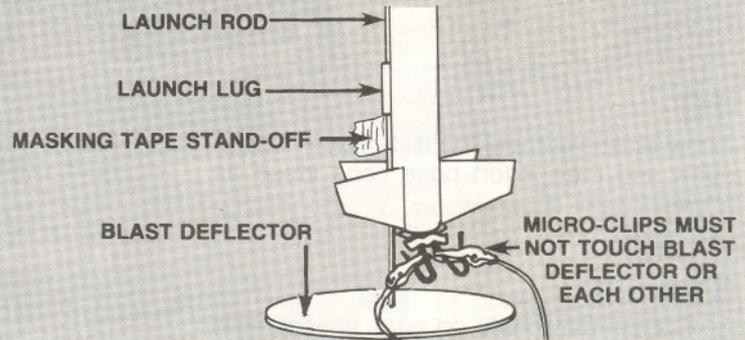
Failure of the rocket engine to function properly is nearly always caused by a failure to install the igniter correctly. This failure permits the igniter to heat and burn into two pieces without igniting the engine.

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
84092

COUNTDOWN AND LAUNCH



- 10 REMOVE SAFETY KEY to disarm the 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. You will need to use a rocket stand-off. One may have come with your launcher. If you do not have one, you can make a stand-off by wrapping masking tape around the rod as shown.
- 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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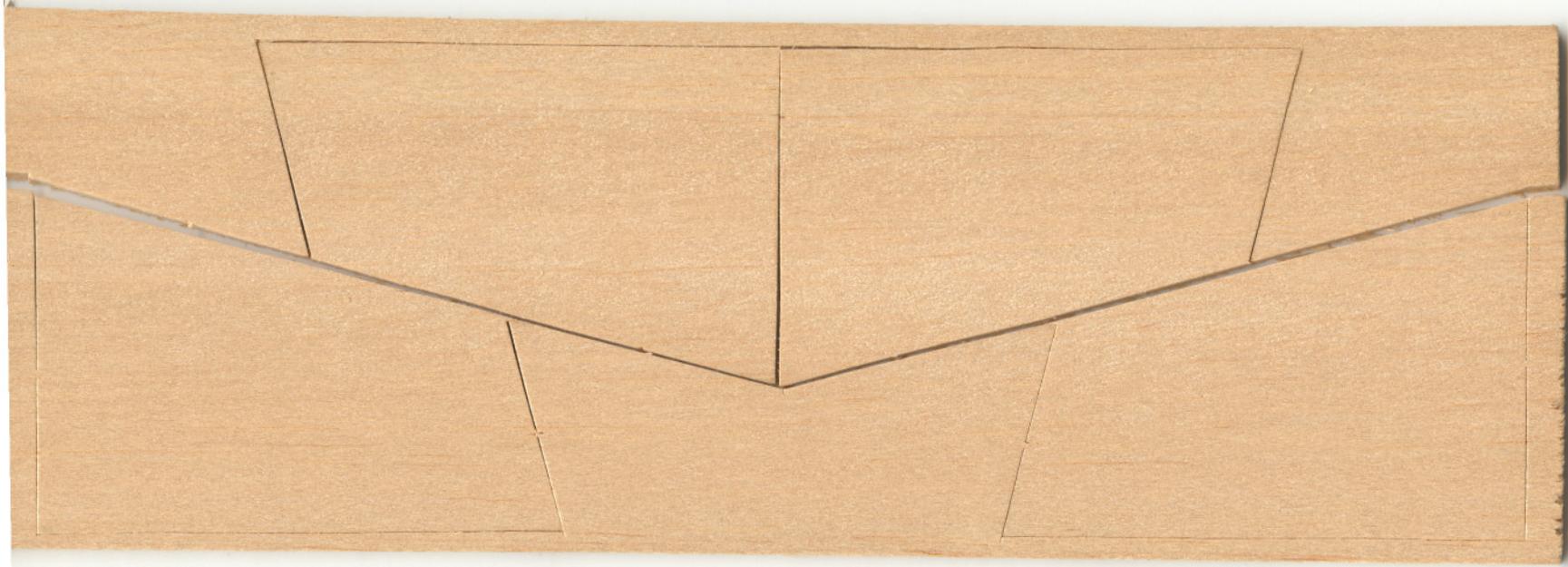
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