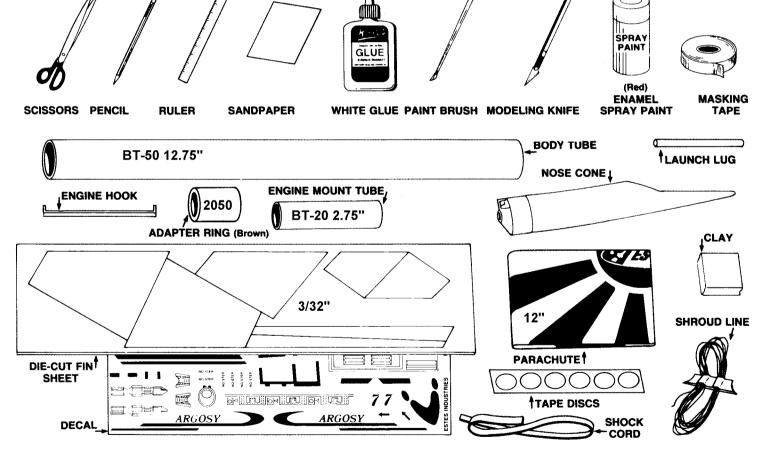


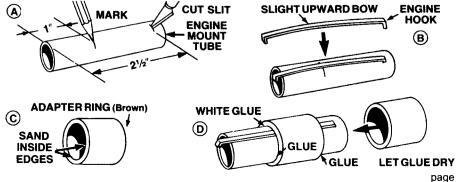
PARTS AND SUPPLIES

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

- A. Mark engine mount tube 1 inch and 2½ inches from one end and then cut 1/8 inch long slit at 21/2 inch mark.
- B. Insert one end of engine hook into slit.
- C. Sand inside edges of adapter ring.
- D. Slide adapter ring onto tube as shown to the 1 inch mark and then glue both ends of ring to tube.



- Fine sand balsa die-cut sheet. Carefully remove fins by freeing edges with sharp knife.
- B. Stack similar fins together. Sand all edges smooth.
- 3
- A. Using a piece of scrap balsa, smear glue inside body tube 1½ inches from one end.
- B. Push engine mount in until tube ends are even.
- 4
- A. Cut out tube marking guide from front of instructions. Wrap guide around the tube and tape. Place launch lug line even with engine hook. Mark tube at arrows. Indicate main fin marks and launch lug marks from other marks. Remove guide and save.
- B. Connect marks with pencil lines and extend all lines the full length of tube.

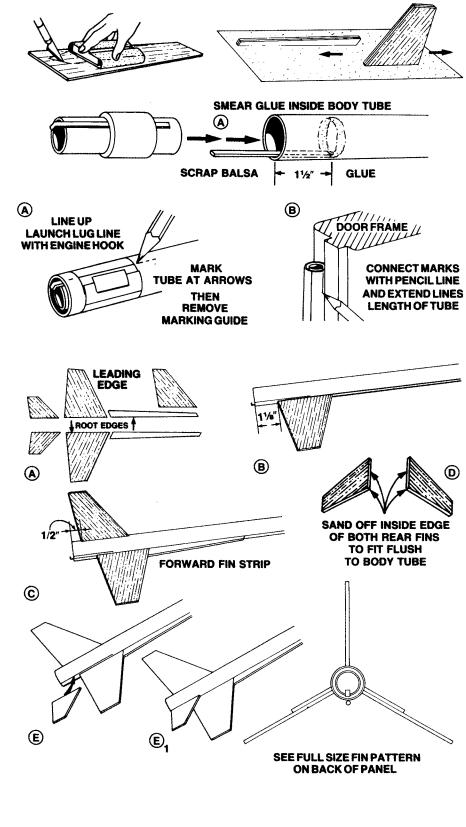
5

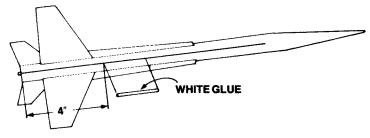
READ ALL OF STEP 5 BEFORE GLUING

- A. Position fin pieces as shown to find leading edges and root edges.
 B. Make a mark 1½ inches from rear end
 - Make a mark 1½ inches from rear end of body tube on the main fin alignment lines. Apply glue to root edge of both main fins and position on main fin alignment lines as shown. Fins should project straight out from body tube.
- C. Make a mark 1/2 inch up from end of body tube on tail fin alignment line. Apply glue to root edge of fin and position on line as shown. Apply glue to forward fin strips and position against main fins on main fin alignment lines as shown.
- D. Position the rear fins as shown (as if they were on the rocket) and lightly sand inside edges. TEST FIT REAR FIN ON ROCKET AS SHOWN IN FIG. © BEFORE SANDING. The root edges should fit flush to body tube.
- E. Apply glue to root edge of rear fin and first 1/2 inch of underside of fin. Position fin on alignment line and top of main fin as shown. Check positions of all fins with fin pattern on back of panel. Make sure fins are in positions shown on fin pattern for stable flight!

6

A. Glue launch lug on launch lug line 4 inches from rear end of body tube as shown. Make sure launch lug is straight on the line.





A. Cut shock cord mount from tube marking quide.

- 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 with fingers and fold mount over again.
- C. Clamp unit together with fingers until glue sets.

8

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

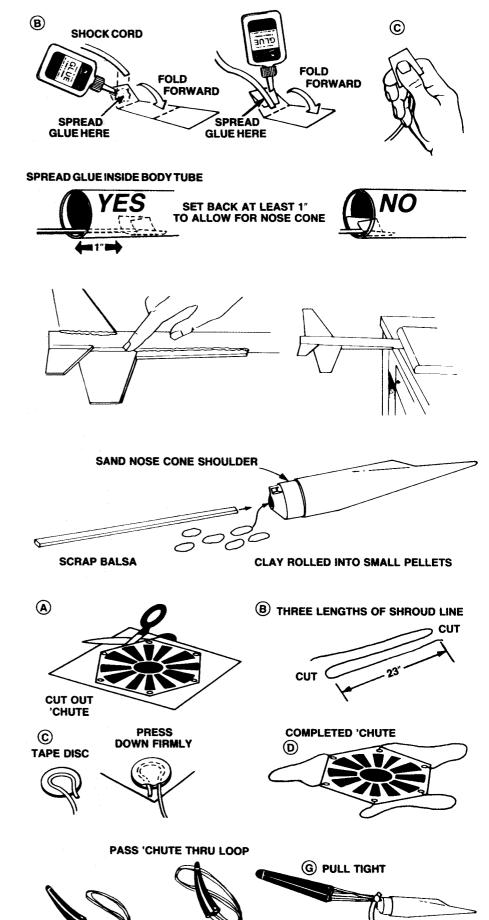
10

- A. Roll clay into small pellets (small enough to fit through hole in nose cone). Drop pellets into nose cone one at a time. Using a piece of scrap balsa, force clay pellets as far forward in nose cone as possible. Use entire piece of clay.
- B. Test fit nose cone in body tube. The nose cone should slide in smoothly, if not sand the shoulder.

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. <u>Firmly</u> 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.

PUSH LINES
THRU EYELET



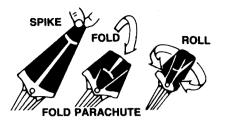
SHOCK CORD

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, paint model with spray enamel. Follow instructions on spray can for best results. Let paint dry overnight before applying decals. To apply decals, cut each out, dip in lukewarm water for 20 seconds, and hold until it uncurls. Refer to photograph on front page and/or on front of panel for decal placement. Slip decal off backing sheet and onto model. Blot away excess water. For best results, let decals dry overnight.







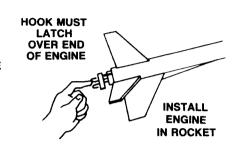
WRAP LINES LOOSELY AROUND 'CHUTE **INSERT PARACHUTE IN ROCKET**











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, C5-3, C6-3, C6-5, or

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 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 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.

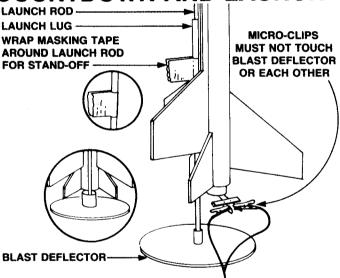
*National Association of Rocketry-The Hobby Industry of America page 4

COUNTDOWN AND LAUNCH

APPLY AND

TAPE DISC

IN PLACE



- REMOVE SAFETY KEY to disarm the launch controller.
- 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.
- 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.
- Move back from your rocket as far as launch wire will permit, (at least 15 feet).
- 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.



NAR/HIA Model Rocketry Safety Code

(Eff. 1-1-87)

1. Construction—My model rockets will be made of lightweight materials such as paper, wood, rubber, and plastic, without any metal as structural parts.
2. Engines—I will use only pre-loaded factory-made NAR Certified model rocket engines in the manner recommended by the manufacturer. I will not alter or dismantle model rocket engines or their ingredients in any way or attempt to reload these engines.
3. Recovery—I will always use a recovery system in my rockets that will return them safely to the ground so that they may be flown again. I will use only flame-resistant recovery wadding in my rockets.

that they may be flown again. I will use only flame-resistant recovery wadding in my rockets.

4. Weight Limits—My model rocket will weigh no more than 1500 grams (53 oz.) at lift-off, and the engines will contain a total of no more than 125 grams (4.4 oz.) of propellant. My model rockets will weigh no more than the engine manufacturer's recommended maximum lift-off weight for the engines used or will use the engines recommended by the manufacturer for my rocket.

5. Stability—I will check the stability of my model rockets before their first flight, except when launching models of already proven stability.

6. Payloads—My model rockets will never carry live animals or payloads that are intended to be flammable or explosive.

animals or payloads that are intended to be flammable or explosive.

7. Launch Area—I will launch my model rockets outdoors in a cleared area, free of tall trees, power lines, and buildings. I will ensure that people in the vicinity are aware of the pending rocket launch and are in a position to see the rocket's lift-off before I begin my audible 5-second countdown.

8. Launcher—I will launch my model rockets from a grid or other device which provides rigid guidence united.

to see the rookets introll before I begin my audition brown ond countdown.

8. Launcher—I will launch my model rockets from a rod or other device which provides rigid guidance until the rocket has reached a speed adequate to ensure a safe flight path. To prevent accidental eye injury, I will always place the launcher so that the end of the rod is above eye level or will cap the end of the launch rod when approaching it. I will cap or disassemble my launch rod when not in use and will never store it in an upright position. The launch device will have a jet deflector to prevent the engine exhaust from hitting the ground directly. I will always clear the area around my launch device of brown grass, dry weeds, and other easy-to-burn materials.

9. lantton System—The system I use to launch my

grass, dry weeds, and other easy-to-burn materials.

9. Ignttion System—The system I use to launch my model rockets will be remotely controlled and electrically operated and will contain a launching switch that will return to "off" when released. The system will contain a removable safety interlock in series with this firing switch. When launching, all persons will remain at least 15 feet away from any model rocket when igniting engines totalling 30 N-sec of total impulse or less and at least 30 feet when igniting engines totalling more than 30 N-sec total impulse. I will use only electrical igniters which will ignite my rocket engine within one second of actuation of the launching switch.

switch.

10. Launch Safety—I will not let anyone approach a model rocket on a launcher until I have made sure that the safety interlock has been removed or the battery has been disconnected from the launcher. In the event of a misfire, I will wait one minute before allowing anyone to approach the launcher.

- 11. Flying Conditions—I will launch my model rocket only when the wind is less than 20 miles per hour, and under conditions where the model will not fly into clouds, fly near aircraft in flight, or be hazardous to people or
- property.

 12. Pre-Launch Test.—When conducting research activities with unproven designs or methods I will, when possible, determine their reliability through pre-launch tests. I will conduct launchings of unproven designs in complete isolation from persons not participating in the
- complete isolation from persons not participating in the actual launching.

 13. Launch Angle—I will not launch rockets so their flight path will carry them against targets. My launch device will be pointed within 30 degrees of vertical. I will never use model rocket engines to propel any device horizontally.

 14. Recovery Hazards—If a model rocket becomes entangled in a power line or other dangerous place, I will not attempt to retrieve it.

As a member of the Estes Model Rocketry Program, I promise to faithfully follow all rules of safe conduct as established in the above code.

This Model Rocketry Safety Code is Approved by the National Association of Rocketry and the Hobby Industry of America.

IMPORTANT!

PLEASE READ AND BECOME FAMILIAR WITH THE MODEL ROCKETRY SAFETY CODE ON THIS CARD. PLEASE SIGN WHERE INDICATED AND KEEP THIS CODE WITH YOU DURING ALL YOUR MODEL ROCKET ACTIVITIES.

FULL ONE YEAR WARRANT

VARRANTY

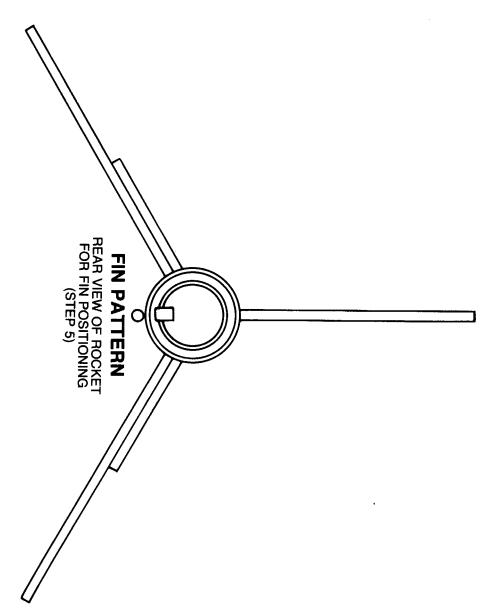
Your Estes product is warranted against defects in materials or workmanship for one year from the date of the original purchase. Any Estes product, except computer software, which, because of a manufacturing mistake, malfunctions or proves to be defective within the one-year warranty period will be repaired or replaced, at Estes' option and at no charge to you, provided it is returned to Estes with proof of purchase.

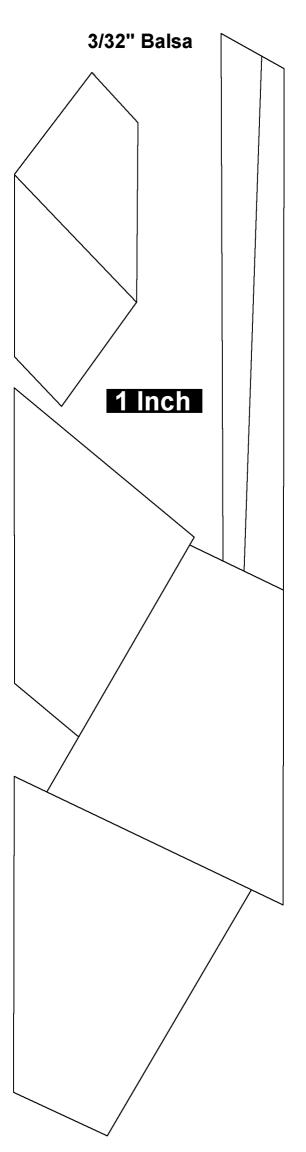
This warranty does not cover incidental or consequential damage to persons or property caused by the use, abuse, misuse, failure to comply with operating instructions or improper storage of the warranted product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. For repair or replacement under this warranty, please return the defective part of your Estes product with proof of purchase to:

Estes Industries, Custômer Service Department, Penrose, Colorado 81240.

Estes industries, Custòr rose, Colorado 81240.







ARGOSY™ SKILL LEVEL 3 Galactic deterrent of everthreatening invasions, this strike fighter is

equipped with laser weaponry, time warp drive

and deionizing technology. Invisible on all known scanners, Argosy™ can strike and evade retaliation easily. Launch your model to 900 feet. Landings are smooth with a 12" parachute!

Length: 18.5" Dia. 0.976" Wt. 1.43 oz. ENGINES: A8-3 (1st Flt.), B4-4, B6-4, C5-3,

C6-3, C6-5.

No. 1988

MODEL ROCKET

- - Larger Miles INCH

THE STATE OF STREET











