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:

- SCISSORS
- PENCIL
- RULER
- SANDPAPER
- WHITE GLUE
- PAINT BRUSH
- MODELING KNIFE
- SPRAY PAINT
- MASKING TAPE
- BODY TUBE
- NOSE CONE
- LAUNCH LUG
- ADAPTER RING (Brown)
- ENGINE MOUNT TUBE
- BT-20 2.75"
- BT-50 12.75"
- PARACHUTE
- SHROUD LINE
- TAPE DISCS
- SHOCK CORD
- CLAY

ROCKET ASSEMBLY
1. Mark engine mount tube 1 inch and 2½ inches from one end and then cut 1/8 inch long slit at 2½ inch mark.
2. Insert one end of engine hook into slit.
4. Slide adapter ring onto tube as shown to the 1 inch mark and then glue both ends of ring to tube.

A. Mark engine mount tube 1 inch and 2½ inches from one end and then cut 1/8 inch long slit at 2½ 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.

WHITE GLUE
LET GLUE DRY

3. Using a piece of scrap balsa, smear glue inside body tube 1 1/2 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. 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. 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 1 1/4 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 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. E 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. 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.
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 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. 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. 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 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.

ROCKET PREFLIGHT

CRUMPLE AND INSERT 2½ SQUARES OF RECOVERY WADDING

PREPARE ENGINE

SEPARATE THE IGNITERS

IGNITER TIP MUST TOUCH PROPELLANT DEEP INSIDE NOZZLE OPENING

INSERT IGNITER

FOLD OVER LEADS

APPLY AND FIRMLY PRESS TAPE DISC OR MASKING TAPE IN PLACE

COUNTDOWN AND LAUNCH

LAUNCH ROD

LAUNCH LUG

WRAP MASKING TAPE AROUND LAUNCH ROD FOR STAND-OFF

BLAST DEFLECTOR

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. . . . 3. . . . 2. . . . 1. . .

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

Remove safety key—Replace cap on rod.

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 C6-7

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°F Fahrenheit (4°C 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
NAR/HIA Model Rocketry Safety Code

1. Construction—Our model rockets will be made of lightweight materials such as paper, wood, rubber, and plastic, without any metal as structural parts.

2. Engines—We will use only pre-made, factory-made NAR Certified model rocket engines in the manner recommended by the manufacturer. We will not alter or dismantle model rocket engines or their ingredients in any way or attempt to rebuild these engines.

3. Recovery—We will always use a recovery system in our rockets that will return them safely to the ground so that they may be flown again. We will use only parachute or resistance recovery systems in our rockets.

4. Weight Limit—Our model rocket will weigh no more than 150 pounds (55 oz) at lift-off, and the engines will contain a total of no more than 125 grams (4.4 oz) of propellant. Model rocket engines will weigh no more than the engine manufacturer's recommended maximum lift-off weight for the engines used or will use engines recommended by the manufacturer for our rocket.

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

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

7. Launch Area—We will launch our model rockets outdoors in a cleared area, free of tall trees, power lines, and buildings. We 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—We will launch our 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 rocket so that the end of the rod is above eye level or can be seen at the end of the launch when approaching. I will clip or disassemble my launch rod where it will never come into contact with my face or upper body. The launch device will have a clear deflector to prevent the engine exhaust from striking the launch device. I will always clear the area around my launch device of brown grass, dry weeds, and other flammable materials.

9. Ignition—Our system to launch our model rockets will be remotely controlled and electrically operated. Our launch system will contain a launching switch that will return to "off" when released. The system will contain a removable igniter switch in series with the firing switch. When launching, all persons will remain at least 15 feet away from any rocket when igniting engines totaling 30 Ns.sec. of total impulse or less and at least 20 feet when igniting engines totaling more than 30 Ns.sec. total impulse. I will use only electrical igniters which will ignite our rocket engine within one second of activation of the launching switch.

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

11. Flying Conditions—We will launch our 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 actual launching.

13. Launch Angle—We 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 Hazard—A model rocket becomes an endangered species in a power line or other dangerous place. I will not attempt to retrieve it.

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

Signature

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 WARRANTY

Your Estes rocket is warranted against defects in material and workmanship for one year from the date of the original purchase. Any Estes product, except computer software, which, because of a manufacturing mistake, malfunction, or misadventure, is not usable 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 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, Customer Service Department, Penrose, Colorado 81240.
ARGOSY™

SKILL LEVEL 3  Galactic deterrent of ever-threatening 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