



# GENERAL PARTS LOCATION

Parts are shown in their relative positions with the part number of each item.

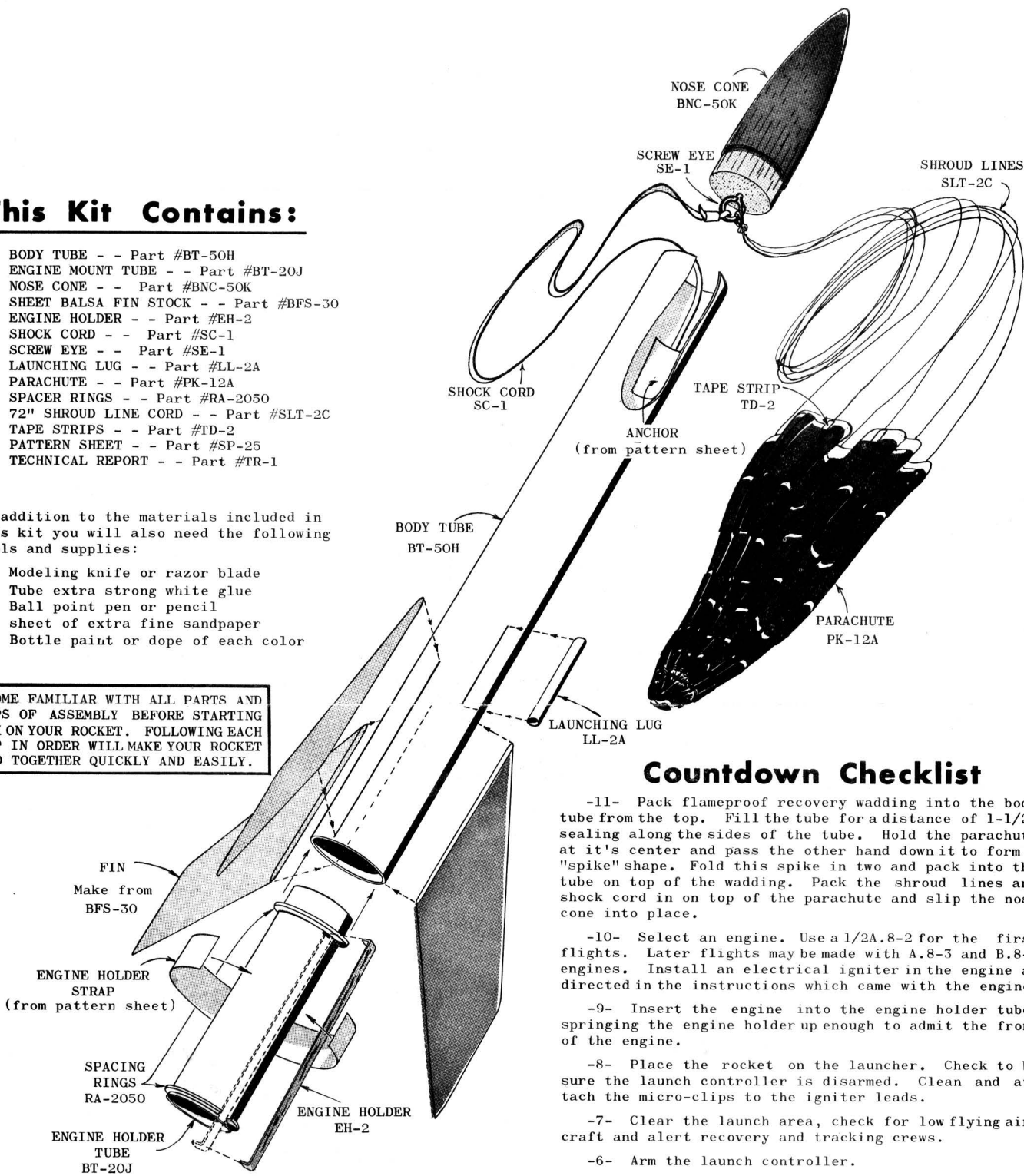
## This Kit Contains:

- 1 BODY TUBE - - Part #BT-50H
- 1 ENGINE MOUNT TUBE - - Part #BT-20J
- 1 NOSE CONE - - Part #BNC-50K
- 1 SHEET Balsa FIN STOCK - - Part #BFS-30
- 1 ENGINE HOLDER - - Part #EH-2
- 1 SHOCK CORD - - Part #SC-1
- 1 SCREW EYE - - Part #SE-1
- 1 LAUNCHING LUG - - Part #LL-2A
- 1 PARACHUTE - - Part #PK-12A
- 2 SPACER RINGS - - Part #RA-2050
- 1 72" SHROUD LINE CORD - - Part #SLT-2C
- 7 TAPE STRIPS - - Part #TD-2
- 1 PATTERN SHEET - - Part #SP-25
- 1 TECHNICAL REPORT - - Part #TR-1

In addition to the materials included in this kit you will also need the following tools and supplies:

- 1 Modeling knife or razor blade
- 1 Tube extra strong white glue
- 1 Ball point pen or pencil
- 1 sheet of extra fine sandpaper
- 1 Bottle paint or dope of each color

BECOME FAMILIAR WITH ALL PARTS AND STEPS OF ASSEMBLY BEFORE STARTING WORK ON YOUR ROCKET. FOLLOWING EACH STEP IN ORDER WILL MAKE YOUR ROCKET GO TOGETHER QUICKLY AND EASILY.



## Countdown Checklist

- 11- Pack flameproof recovery wadding into the body tube from the top. Fill the tube for a distance of 1-1/2" sealing along the sides of the tube. Hold the parachute at it's center and pass the other hand down it to form a "spike" shape. Fold this spike in two and pack into the tube on top of the wadding. Pack the shroud lines and shock cord in on top of the parachute and slip the nose cone into place.
- 10- Select an engine. Use a 1/2A.8-2 for the first flights. Later flights may be made with A.8-3 and B.8-4 engines. Install an electrical igniter in the engine as directed in the instructions which came with the engine.
- 9- Insert the engine into the engine holder tube, springing the engine holder up enough to admit the front of the engine.
- 8- Place the rocket on the launcher. Check to be sure the launch controller is disarmed. Clean and attach the micro-clips to the igniter leads.
- 7- Clear the launch area, check for low flying aircraft and alert recovery and tracking crews.
- 6- Arm the launch controller.
- 5- -4- -3- -2- -1- LAUNCH!

ASTRON

# ALPHA

K-25

PARACHUTE RECOVERY

### GREAT FOR

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Larry Shradlow

**1 ATTACH ENGINE HOLDER**

Measure 1/4" from one end of the engine holder tube and punch a slot for the forward hook of the engine holder. Apply glue to the area shown and put the holder into its position. Hold the assembly until the glue has set.

**2 SPACING RINGS ARE NEXT**

Slide one ring on the engine tube seating it against the front of the engine holder. Cut a 3/16" slot in the second ring. Slip the ring 1/16" over the rear of the tube centering the slot on either side of the engine holder.

**3 PREPARE SHOCK CORD HOLDER AND INSTALL SHOCK CORD**

When cut out, prefold at the dotted lines.

**Step 1:** Apply glue to section 1. Lay the end of the shock cord into place. Fold the 1st. section over the second one as shown.

**Step 2:** Apply glue over the backside of the first and the exposed part of section 2. Lay the shock cord as shown and fold the cord and section 2, over section 3. Center the shock cord at this edge.

**Step 3:** Apply glue to the inside of the body tube where the shock cord mount will seat. Hold the shock cord as shown and place the mount into position, pressing it to conform to the inside curve of the body tube.

**4 MARK THE BODY TUBE FOR FINS AND LAUNCHING LUG**

Cut the Fin Marking Guide from the pattern sheet and wrap it around the body tube as shown. Mark the tube at each arrow point as shown and connect these marks.

**5 LAYOUT, CUTTING AND SANDING OF FINS**

Cut the fin pattern from the pattern sheet and lay out 3 fins on the fin stock. Cut out the fins and sand them to the shape shown. Leave the root edge flat. Round the lead and taper the rear edges.

**6 INSTALL THE ENGINE HOLDER ASSEMBLY INTO THE BODY TUBE**

Slide the engine holder assembly into the body tube until the rear edges of each are parallel. Hold the body tube in a vertical position and apply a fillet of glue around the circumference of both ring-tube joints. Do not get glue in the 3/16" slot or it may obstruct the spring action of the engine holder.

Slide assembly fully into place. Fill all but slot with glue.

**7 ATTACH THE FINS AND LAUNCHING LUG**

Apply a line of glue along the root edge of a fin. Carefully align this edge on one side of a guide line so that it is parallel to the line and sticks straight out from the body tube as shown in the rear view. Do the same with the other two fins. Apply a line of glue along the launching lug and place it centered between two fins as indicated on the fin marking guide. Stand this assembly on its forward end and allow to dry.

**9 PARACHUTE ASSEMBLY**

Trim the 'Chute and spread it on a flat surface. Cut all of the lines to 12" in length and tape them to the 'chute at the anchor points.

**10 APPLY FINAL FILLETS, SEALER AND PAINT**

**PREPARATION FOR BASE COAT**

Apply all fillets to fins and launching lug as shown in Step 7, in the rear view. Let all fillets dry completely. Apply sanding sealer to all balsa surfaces. Allow the sealer to dry and sand it smooth. Repeat this step as much as needed to fill all the grain lines in the wood.

**DOPE FINISH:** Butyrate dope may be thinned up to 50% for good brushing qualities. Apply 4 or more coats of the base color sanding lightly between all coats until a smooth clean finish is obtained. If a second color trim is to be painted, allow the first color to dry overnight to keep from "bleeding" the base color thru the second color as it is applied.

**SPRAY ENAMEL:** Spray a "mist" coat of base color and let dry. Spray 2 more "mist" coats sanding your rocket lightly between each coat. The final coat is applied "wet" (gloss just appears) and is set aside to dry. Trim color may be applied with tape, decals or sprayed on.

**COLOR SCHEME OF PROTOTYPE**

RED: Nose cone  
One fin & panel

WHITE: Remainder of Rocket

**11 FINAL ASSEMBLY**

Thread the shock cord thru the screw eye and tightly wrap with the remaining tape strip as shown. Tie the shroud lines to the screw eye. Now you are ready to go on thru the countdown checklist.

**8 INSTALL THE SCREW EYE**

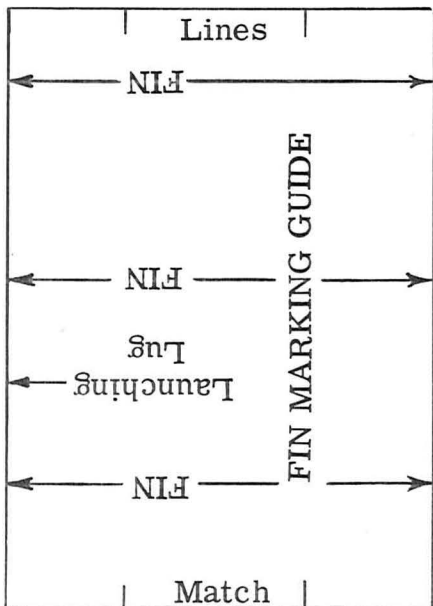
Put the screw eye into the base of the nose cone and remove it. Squirt a bit of glue into the hole and reinsert the screw eye.

1 Inch

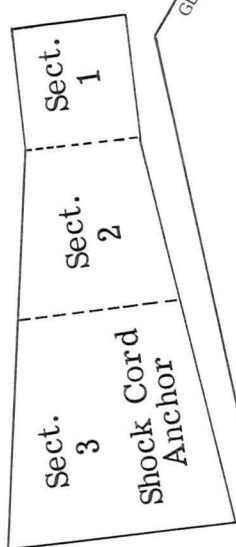
1 Inch

1 Inch

1 Inch



Astron  
**ALPHA**  
 Pattern Sheet



GLUE THIS EDGE TO BODY TUBE

FIN PATTERN  
 (Make 3) ← Grain →

Leading edge

**SP-25**

1 Inch

1 Inch

1 Inch

1 Inch



Images by Gerry Fortin