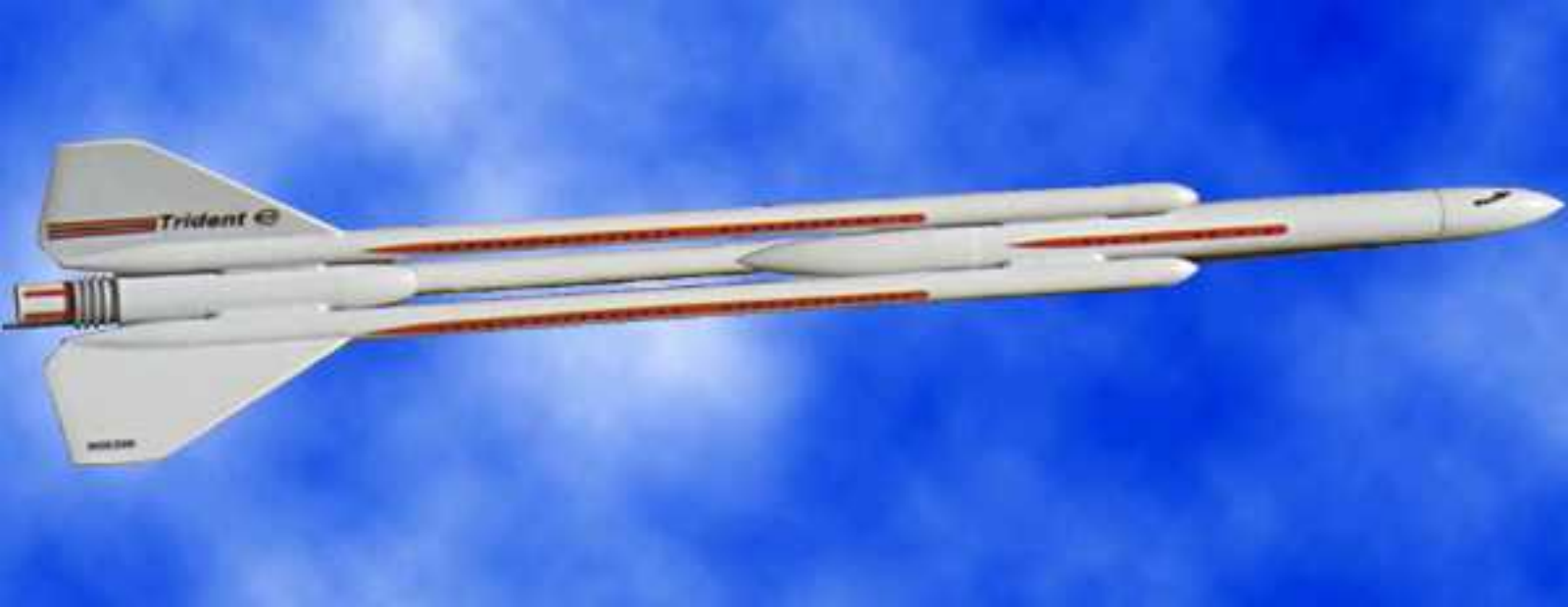

Trident

Astron TRIDENT

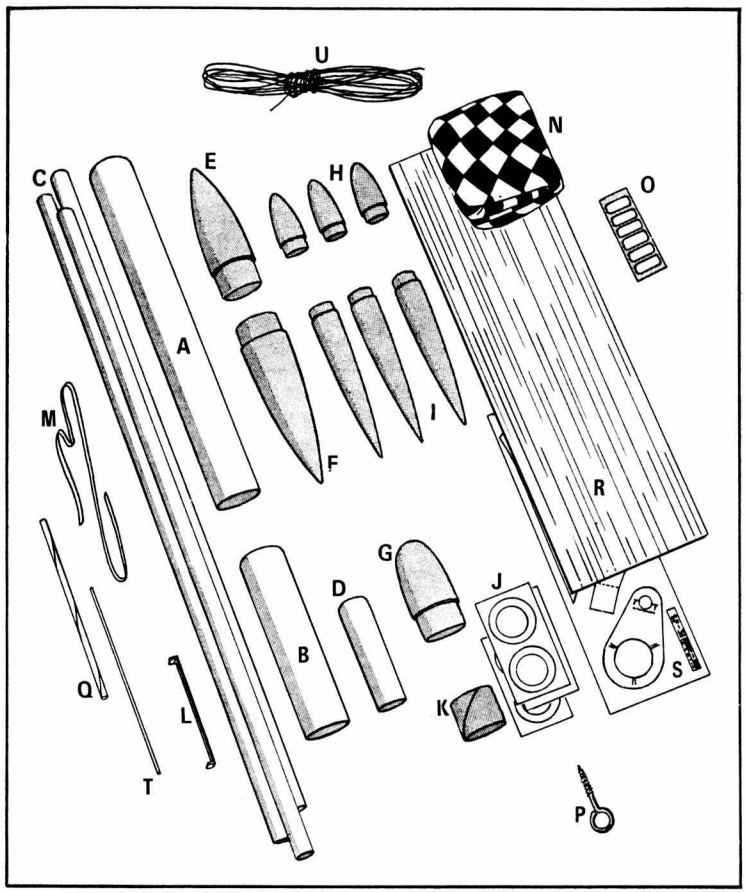
PARTS LIST

Your Astron Trident model rocket kit consists of the following parts:

(A)	1	"Passenger Section" Body Tube – Part #BT-50W
(B)	1	"Atomic Drive" Body Tube – Part #BT-50S
(C)	3	"Supplies and Storage" Body Tubes – Part #BT-5
(D)	1	Engine Holder Tube – Part #BT-20J
(E)	1	Main Nose Cone – Part #BNC-50K
(F)	1	"Passenger Section" Tail Cone – Part #BNC-50Y
(G)	1	"Atomic Drive" Nose Cone – Part #BNC-50J
(H)	3	"Supplies and Storage" Nose Cones – Part #BNC-5E
(I)	3	"Supplies and Storage" Tail Cones – Part #BNC-5W
(J)	6	Adapter Rings – Part #RA-2050
(K)	1	Tube Coupler – Part #JT-50C
(L)	1	Engine Holder – Part #EH-2
(M)	1	Shock Cord – Part #SC-1
(N)	1	Parachute – Part #PK-18A
(O)	6	Tape Strips – Part #TD-2F
(P)	1	Screw Eye – Part #SE-1
(Q)	1	Launching Lug – Part #LL-2C
(R)	1	3" X 12" X 3/32" Balsa Fin Stock – Part #BFS-30L
(S)	1	Pattern Sheet – Part #SP-33
(T)	1	Stand-off Dowel – Part #WD-2C
(U)	108"	Shroud Line – Part #SLT-1C

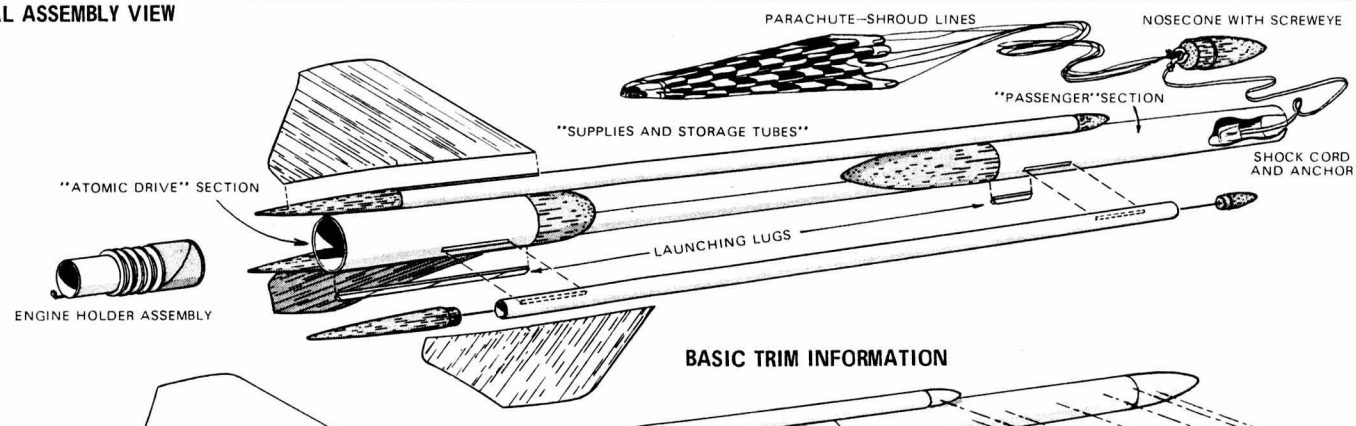
In addition to the materials included with your kit, you will also need the following tools and supplies:

1) – Modeling knife or single-edge razor blade
2) – Scissors
3) – Extra strong white glue
4) – Ball point pen or pencil
5) – Fine and extra fine sandpaper
6) – Sanding sealer and paint or dope

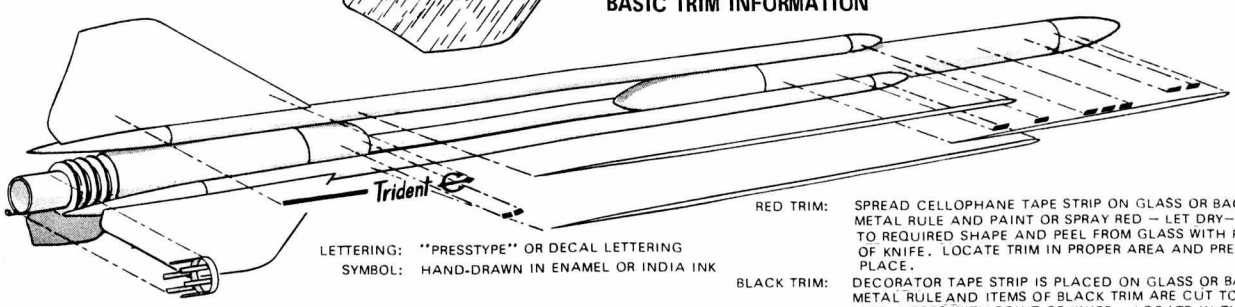


Read the entire assembly instructions carefully before beginning work on your rocket. Then start construction, following each step in order, checking off each step as it is completed.

GENERAL ASSEMBLY VIEW



BASIC TRIM INFORMATION



LETTERING: "PRESSTYPE" OR DECAL LETTERING
SYMBOL: HAND-DRAWN IN ENAMEL OR INDIA INK

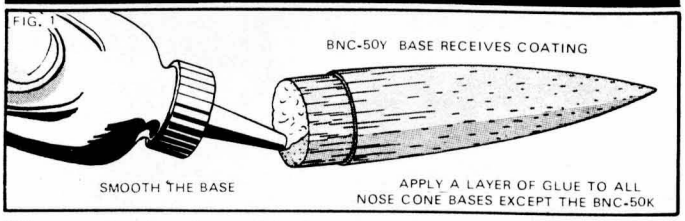
RED TRIM: SPREAD CELLOPHANE TAPE STRIP ON GLASS OR BACK OF METAL RULE AND PAINT OR SPRAY RED – LET DRY– CUT TO REQUIRED SHAPE AND PEEL FROM GLASS WITH POINT OF KNIFE. LOCATE TRIM IN PROPER AREA AND PRESS IN PLACE.

BLACK TRIM: DECORATOR TAPE STRIP IS PLACED ON GLASS OR BACK OF METAL RULE AND ITEMS OF BLACK TRIM ARE CUT TO SHAPE. LIFT PIECES WITH POINT OF KNIFE – LOCATE IN THEIR CORRECT SPOTS AND PRESS IN PLACE.

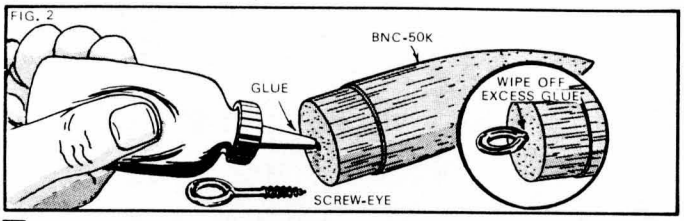
ORIGINAL MODEL PAINTED GLOSSY WHITE WITH TRIM DETAIL CUT FROM DECORATING TAPE AND PAINTED CELLOPHANE TAPE AS MENTIONED.

ALL TRIM IS MADE PERMANENT BY APPLYING 2 COATS CRYSTAL CLEAR ACRYLIC PAINT OVER ENTIRE BIRD AS FINAL FINISH.

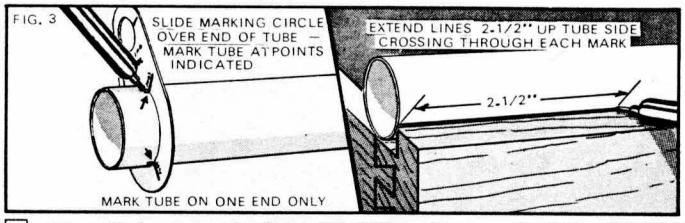
BEGIN CONSTRUCTION



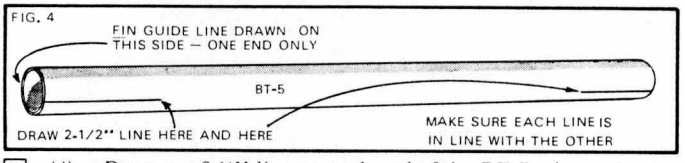
☐ (1) Sand the base end of each nose cone smooth and coat each base end (except the 3-¼" BNC-50K nose cone) with white glue and allow to dry.



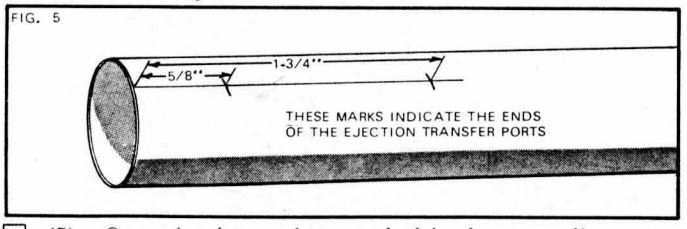
☐ (2) Turn the screw eye into the base end of the BNC-50K nose cone, remove it and squirt white glue into the hole. Replace the screw eye and wipe off the excess glue.



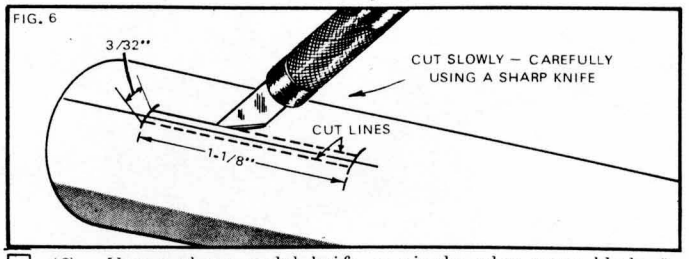
☐ (3) Mark one end of the BT-50S and one end of the BT-50W tubes with three equally spaced marks using the tube marking circle. Extend the lines up the tube from each mark at least 2-½". Use a drawer or door sill as a straight edge to insure that all lines are drawn parallel to the tube centerline.



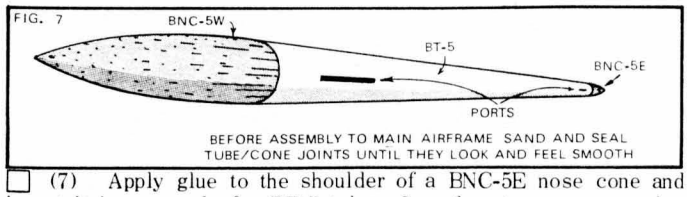
☐ (4) Draw one 2-½" line on each end of the BT-5 tubes. Again, use a door or drawer sill to insure that both lines are in line with each other and are parallel to the tube centerline.



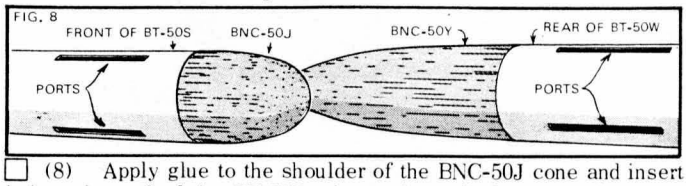
☐ (5) On each tube you have marked in the preceeding steps, measure 5/8" from the tube end and place a mark, then another mark at 1-3/4" from the tube end as shown. When this step is completed, you should have marked as illustrated, each parallel line that you placed on the tubes mentioned in steps 3 and 4.



☐ (6) Use a sharp model knife or single edge razor blade for this step. Make two cuts, one on either side of the line between the two cross marks. The illustration shows the exact dimensions of one transfer port. Complete the port by cutting each end at the cross marks as shown. Repeat this step with the remaining marked tubes. When completed, each of the BT-50 tubes should have 3 ports equally spaced around one end and each of the BT-5 tubes should have one port at each end.



☐ (7) Apply glue to the shoulder of a BNC-5E nose cone and insert it in one end of a BT-5 tube. Smooth out any excess glue as a joint sealer. Apply glue to the shoulder of a BNC-5W nose cone and insert in the other end of the same BT-5 tube, spreading any overflow as a joint sealer. Repeat this step with the other two pairs of cones and the remaining BT-5 tubes.

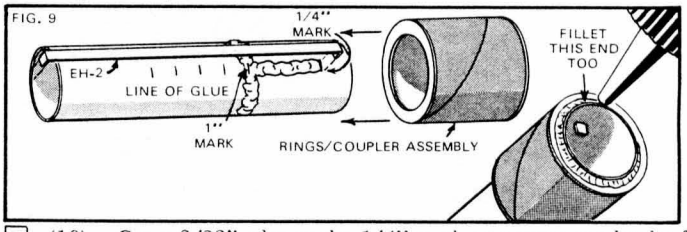


☐ (8) Apply glue to the shoulder of the BNC-50J cone and insert it into the end of the BT-50S tube at the end closest to the ports. Smooth out any overflow of glue as a joint sealer. Apply glue to the shoulder of the BNC-50Y and insert it into the BT-50W tube at the end closest to the ports, again smoothing out any overflow of glue as a joint sealer.

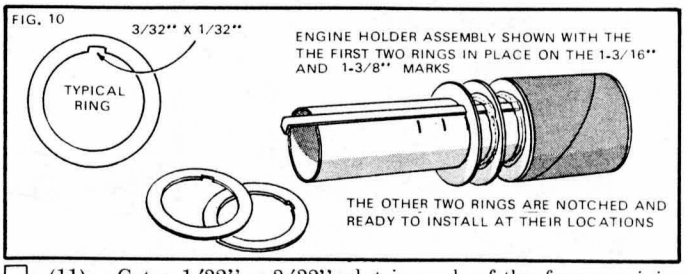
NOTE: The parts assembled in steps 1 through 8 must be thoroughly dry before continuing to assemble the main airframe. The steps to come have been arranged to allow a reasonable drying time so that each assembly will be ready as it is called for.

ASSEMBLE ENGINE MOUNT AND RECOVERY GEAR

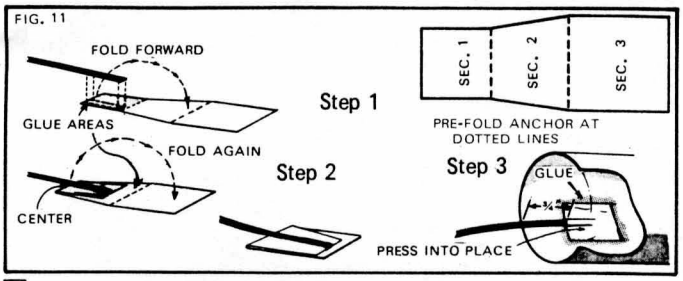
☐ (9) Apply glue to each end of the JT-50C coupler and position one RA-2050 ring on each end. While this coupler/ring assembly dries, lay the BT-20J on its side and with a ruler, mark the side of the tube at 1/4", 1", 1-3/16", 1-3/8", 1-9/16" and 1-3/4" intervals.



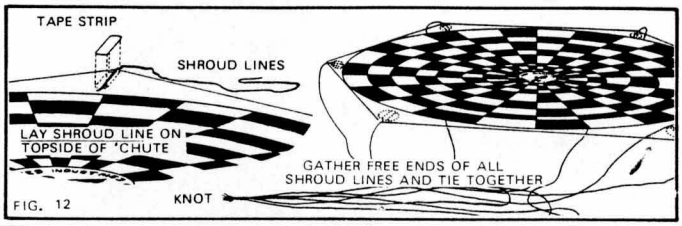
☐ (10) Cut a 3/32" slot at the 1/4" mark to accept one hook of the EH-2 engine holder. Apply a line of glue between the 1/4" and 1" marks and around the tube at the 1" mark. Place one hook of the engine holder in the slot and lay the holder shank into the line of glue. Hold the tube and engine holder in position while you slide the ring/coupler assembly onto the end of the tube, forcing the leading ring over the holder shank and up into the ring of glue at the 1" mark. (The ring at the other end of the coupler should just be over the end of the tube at this point.) Spread the ring of glue into a tube/ring joint fillet and apply a fillet of glue around the ring/tube joint at the front end of the assembly. See the illustration.



☐ (11) Cut a 1/32" x 3/32" slot in each of the four remaining RA-2050 rings as shown. Slide the first ring down the tube (with the slot over the shank of the engine holder) to the 1-3/16" mark. Align the ring all the way round the tube and apply a fillet of glue around the ring/tube joint at the side of the ring AWAY from the coupler. Repeat this part of the step with the 3 remaining rings and locating marks. Stand the engine holder assembly on its front end to dry completely.



☐ (12) Cut the shock cord anchor from the pattern sheet and assemble it to the shock cord as shown. Glue the shock cord anchor 3/4" down inside the open end of the BT-50W tube. Tie the free end of the shock cord to the screw eye in the base of the BNC-50K nose cone.

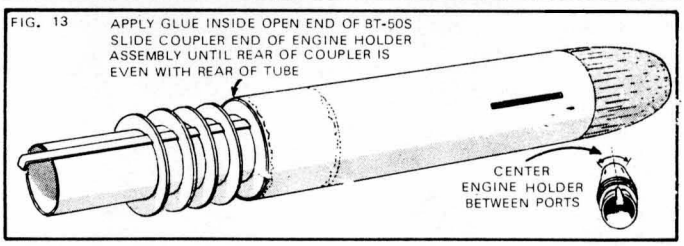


☐ 13. Trim the parachute on the edge lines shown on the plastic. Cut six 18" lengths of shroud line cord and attach one shroud line to each point of the parachute with a tape strip as shown above. Tie the free ends of the shroud lines together in a single knot. Tie this knotted end to the screw eye. Temporarily insert the 'chute, lines, shock cord and nose cone in place in the upper body tube.

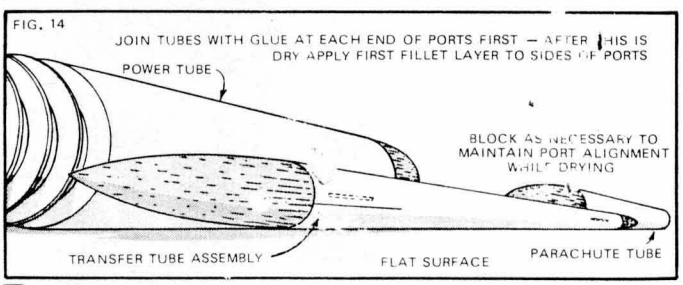
APPLY SEALER NOW

☐ (14) Now is the time to prepare all nose cones for their final finish. Apply sanding sealer to all nose cones and let them dry completely. Lightly sand each cone and apply the second coat of sanding sealer. Repeat this step until the surface pores have been filled and the surface of all cones is "glassy" smooth.

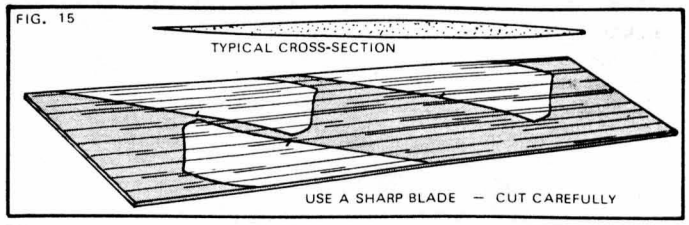
RESUME MAIN AIRFRAME ASSEMBLY



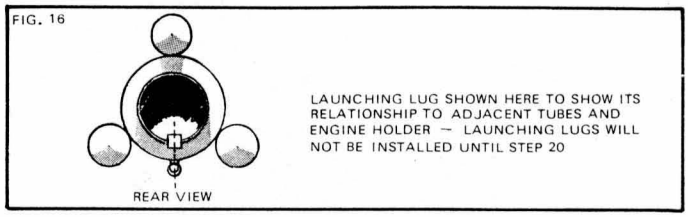
☐ (15) Apply a film of glue to the inside of the open end of the BT-50S tube. Slide the coupler end of the engine holder assembly into the tube until the rearmost edge of the coupler is even with the rearmost edge of the tube. Before the glue has set, turn the assembly so the engine holder is sight-centered between two of the ports. See the illustration.



☐ (16) Select a flat surface on which to assemble the main tube sections and transfer tubes. Apply a line of glue on one transfer tube unit extending 5/8" along the centerline on each side of each port. Match the rear port of the transfer tube to one of the ports on the "Atomic drive" unit and align the tubes so their centerlines are parallel. Match the front transfer port with one of the ports on the forward "Passenger unit" and again align the two tube centerlines. Allow this assembly to lay on the flat surface to dry, making sure that the ports remain in alignment with each other.

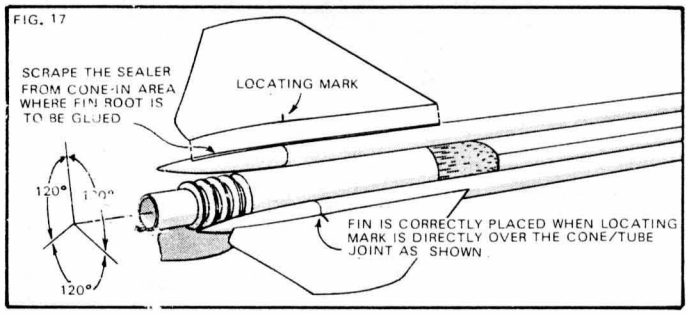


☐ (17) Cut the fin pattern from the pattern sheet and lay out 3 fins. Be sure to make the location mark mentioned on the pattern CLEARLY so that it may be found after you have sanded each fin to shape. Cut out each fin and sand the leading and tip edges round. Taper the trailing edge of each fin, then fine-sand the sides of each fin. By now, the parts assembled in step 16 should be dry enough to proceed with the next step.

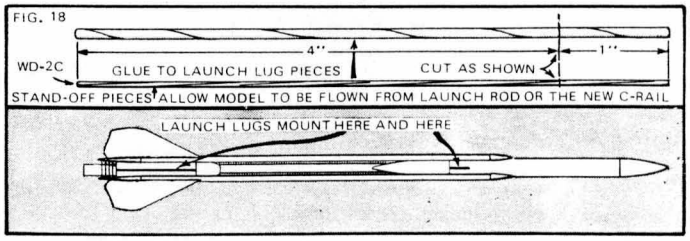


☐ (18) Refer back to step 16 and repeat the step with one of the two remaining transfer tube assemblies. If your glue sets fairly fast, you may proceed to repeat the step with the third transfer tube. When completed to this point, your bird should appear the same as the rear view in the illustration.

ADDING THE LAST PIECES

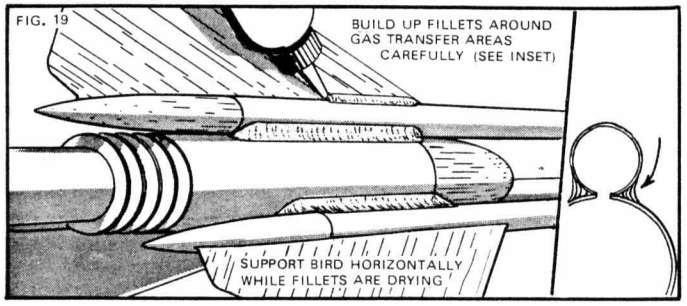


☐ (19) Tridents fins mount on the outside rear of the transfer tubes, each fin 120 degrees from the other, straight away from the centerline of the bird. Scrape the sealer from the portion of a rear cone to which part of a fin root edge will be glued. Apply a line of glue to the root edge of a fin and set it in place. Sight-align the fin to correct position relative to the main centerline and so the location mark (mentioned in step 17) rests directly above the tube-cone joint. Allow the glue to become well set before repeating this step with the two remaining fins. Seal and sand the fins to achieve the appearance called for in step 14 for wood surfaces.



☐ (20) Cut the LL-2C launching lug into two pieces as shown. Cut the WD-2C dowel to match each of the lengths of launching lug. Run a line of glue along each of the pieces and apply them in turn to the matching lug pieces. Be sure each dowel piece is perfectly aligned with the centerline of its lug. Set both assemblies aside to dry. The longer of the two pieces is glued to the "Atomic drive" unit parallel to the main centerline and centered between two transfer tubes – directly in line with the engine holder. The leading edge of this lug and its standoff is even with the cone-tube joint line. Place the shorter lug and its standoff directly in line with the first one, its trailing edge even with the tail cone-tube joint line of the "Passenger unit".

NOTE: Step 21 is by far the most time-consuming of all the steps. However, it is also perhaps the most important step too, for without a proper gas seal around each transfer port, the recovery system can fail and wipe out your previous effort.

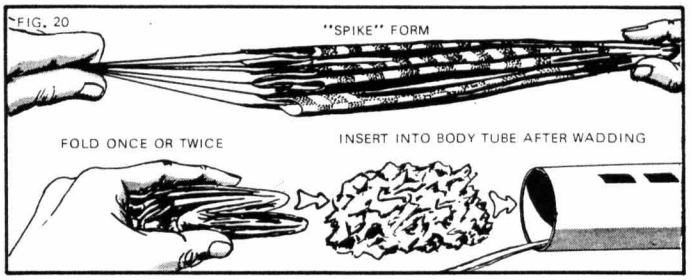


(21) Seal the transfer ports by application of glue fillets along the joint on either side of each port and for at least 1/2" past the end of each port. Do not try to build the fillet in one heavy coat – instead – build it up with several light coats smoothing each one and allowing each coat to dry completely. While doing this step you may also fillet each side of the fins at the root edge joints. Support the model horizontally during the times the fillets are drying.

(22) Support your Trident so as to be able to reach all parts with spray paint. (If you decide to brush paint, you'll find ample holding points as you progress from one section to the next.) Apply at least two coats of glossy white enamel. Allow each coat to dry thoroughly before applying the next. You are now ready to spray on the final colors of your choice, or brush on details and trim.

COUNTDOWN CHECKLIST

(12) Crumple three "squares" of flame-resistant wadding into a ball and place into the forward end of the "Passenger unit" tube just past the shock cord anchor. Grasp the parachute at its center with two fingers and pass the other hand down it, to form a "spike" shape. Fold this spike in two or three sections as shown and insert it gently into the tube, pushing the wadding ahead of it until the upper end of the 'chute is at least 1-1/2" below the front end of the tube. Pack the shroud lines and shock cord in next and slide the nose cone into place.



(11) Select an engine. Use an A8-3 for the first flights. Later flights can be made with a B6-4, C6-5 or B14-5 engine. Install an electrical igniter in the engine as directed in the instructions which came with the engine. Slip the engine into place, making sure the rear hook of the engine holder has snapped into position and holds the engine securely in place.

(10) Remove the safety interlock key from the launch panel and hand it to the launch control officer or carry it with you.

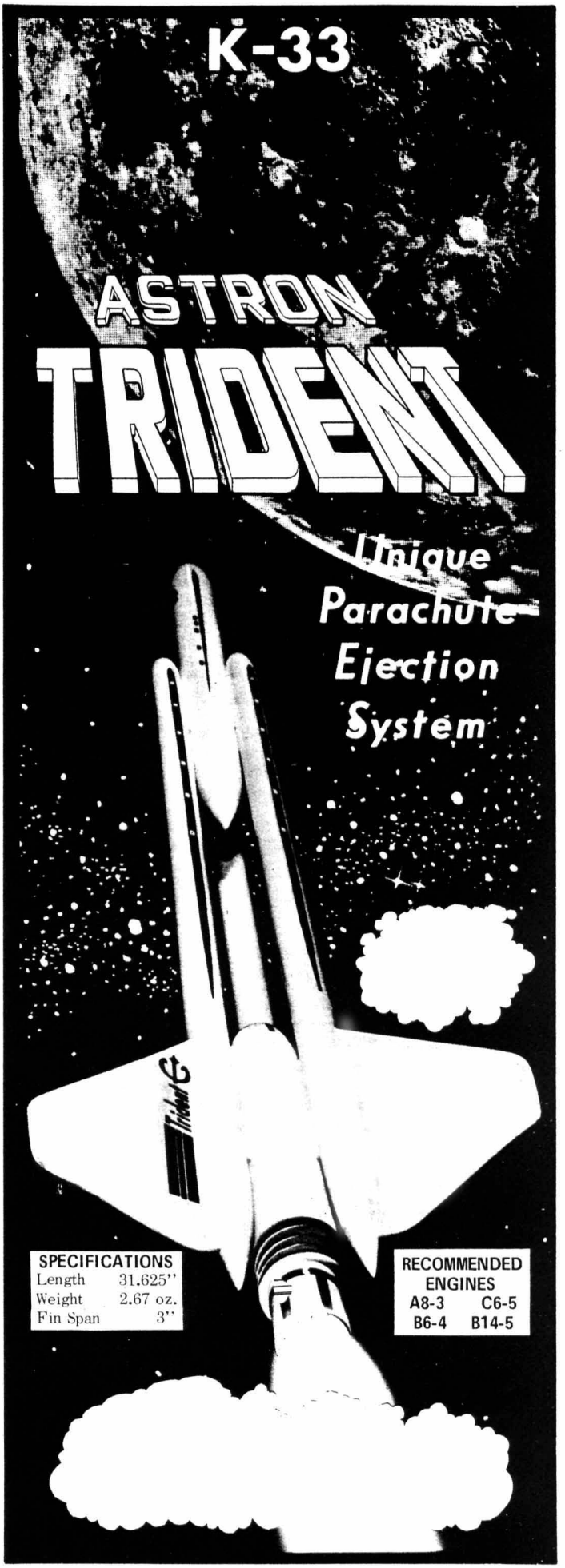
(9) Place the rocket on the launcher. Clean the micro-clips and attach them to the igniter leads.

(8) Clear the launch area, alert the recovery and tracking crews.

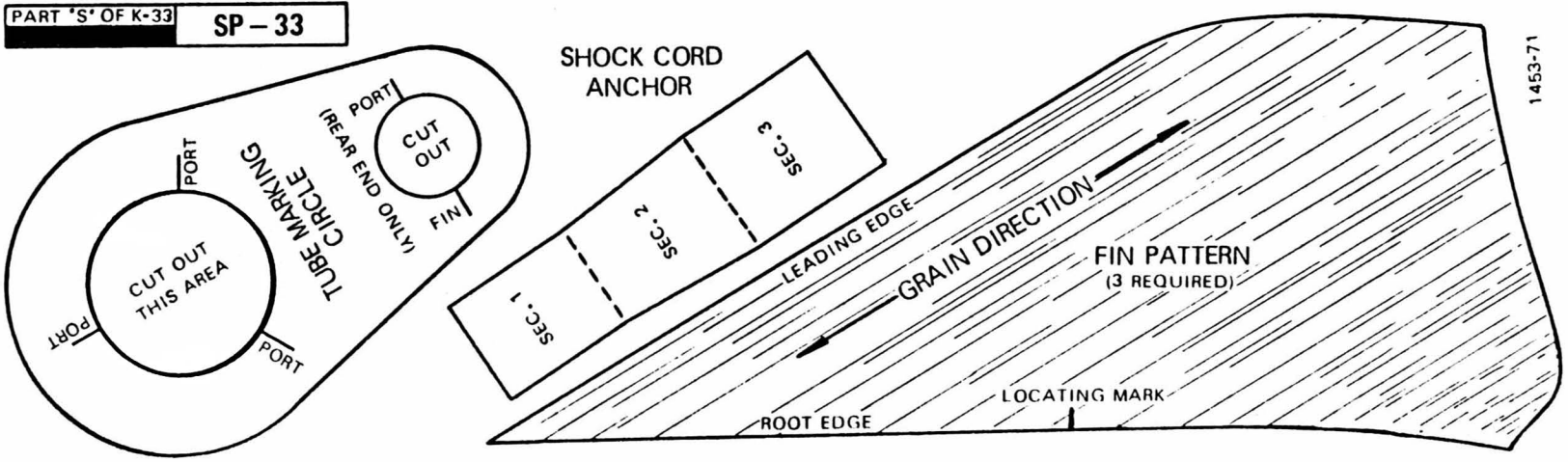
(7) Check the area for low flying aircraft and unauthorized persons in the recovery area.

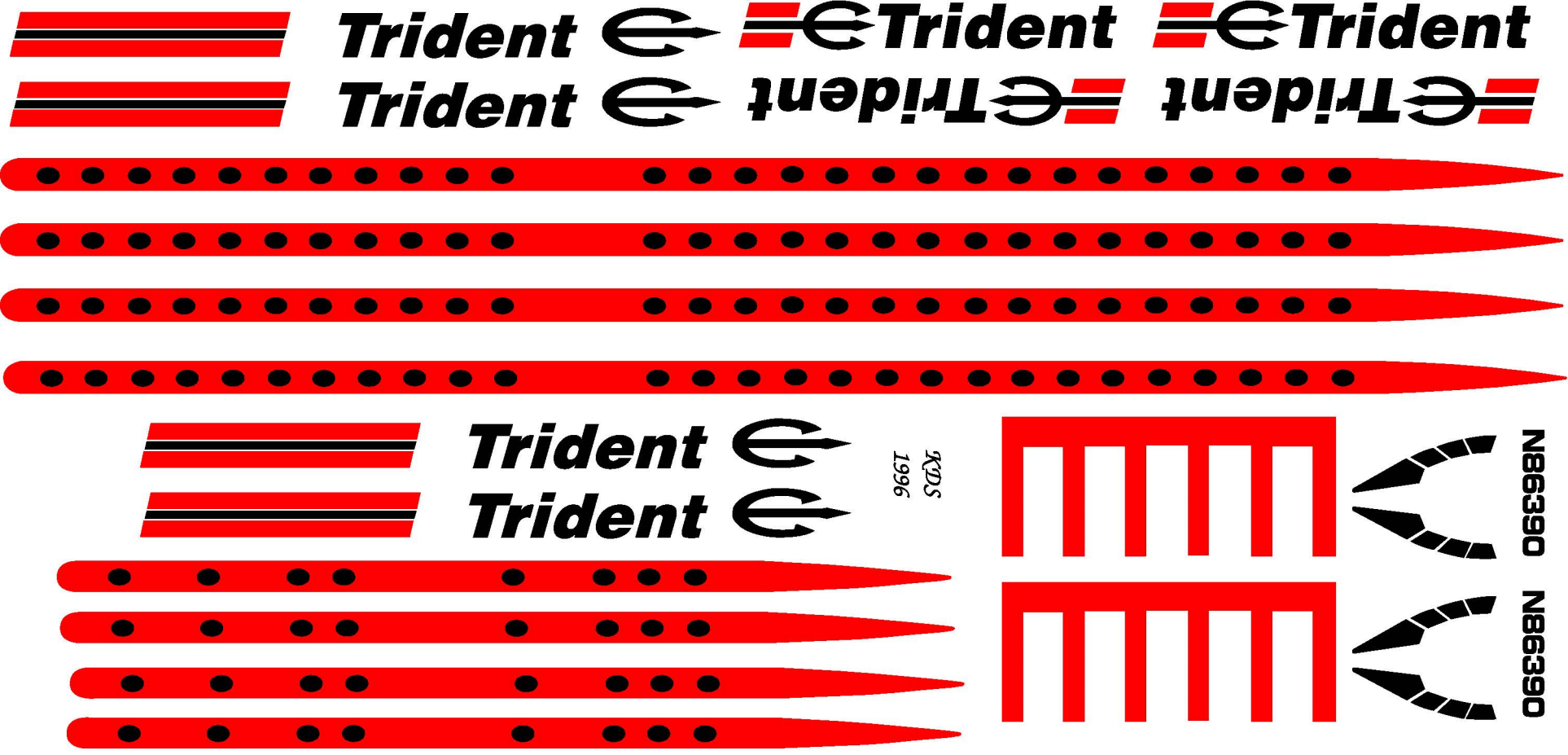
(6) Arm the launch panel and commence the final countdown.

–5– –4– –3– –2– –1– LAUNCH!



PART 'S' OF K-33 **SP – 33**

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PARTS LIST KIT N0. K-33 - Trident								
Quantity	Description	Type	Number	Details1	Details2	Details3	Details4	Comment
1	PAPER BODY TUBE	BT-50W	30372	9.5" long	0.950" ID	0.976" OD	0.013" wall	Glassine
1	PAPER BODY TUBE	BT-50S	30368	4" long	0.950" ID	0.976" OD	0.013" wall	"Atomic Drive" Tube
3	PAPER BODY TUBE	BT-5	30302	18" long	0.515" ID	0.541" OD	0.013" wall	"Supplies and Storage" Tube
1	PAPER BODY TUBE	BT-20J	30326	2.75" long	0.710" ID	0.736" OD	0.013" wall	Engine Holder Tube
1	BALSA NOSE CONE	BNC-50K	70262	2.75" long	.976" dia.	.5" shoulder		Main Nose Cone
1	BALSA NOSE CONE	BNC-50Y	70266	4.375" long	.976" dia.	.375" shoulder		"Passenger Section" Tail Cone
1	BALSA NOSE CONE	BNC-50J	70256	1.375" long	.976" dia.	.5" shoulder		"Atomic Drive" Nose Cone
3	BALSA NOSE CONE	BNC-5E	70212	1.375" long	.541" dia.	.25" shoulder		"Supplies and Storage" Nose Cone
3	BALSA NOSE CONE	BNC-5W	70218	2.875" long	.541" dia.	.25" shoulder		"Supplies and Storage" Tail Cone
6	ADAPTER RING	RA-2050	3110	0.738" ID	0.949" OD	0.02" thick	BT-20 in BT-50	
1	STAGE COUPLER	JT-50C	30260	0.920" ID	0.949" OD	1" long	fits BT-50	
1	ENGINE HOLDER	EH-2	3141/35025	2.8" long	.100" wide	.025" thick		Reg. & D
1	Shock Cord	SC-1	85730	18 " long	1/8" wide			Rubber
1	Parachute	PK-18A	2266/85566	18" dia.				
6	Tape Strip	TD-2F	2297	1/4" x 3/4"				6x
1	Screw Eye (Large)	SE-1		1" long				
1	LAUNCH LUG	LL-2C	2325	5/32" ID	1/8" rod	5" long		
1	BALSA FIN STOCK	BFS-30L	3170	3/32" thick	3" wide	12" long	0.09375	
1	Pattern Sheet	SP-33						Scan
1	DOWEL	WD-2C	?	1/12" dia.	5" long			Wood
1	Shroud Line	SLT-108	38239	108"				


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KIT NO. K-33 14.0

SPECIFICATIONS

RECOMMENDED ENGINES

PARACHUTE RECOVERY

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FULL COLOR CATALOG

ASTRON TRIDENT

Astron
TRIDENT

- NEARLY 3 FEET TALL
- FUTURISTIC DESIGN
- EJECTION DUCTING SYSTEM

SKILL LEVEL 4

1—Beginner 2—Intermediate 3—Craftsman 4—Advanced 5—Expert

SPECIFICATIONS

Length	31.6" (80.3cm.)	Weight	2.7 oz. (77 g.)
Body Dia.	0.976" (24.8mm.)	Parachute Recovery	

RECOMMENDED ENGINES

A8-3 B6-2 B6-4 B14-5 C6-5

Use B6-2 for first flights. Engines and launcher not included.

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ASTRON TRIDENT

Unique Parachute Ejection System

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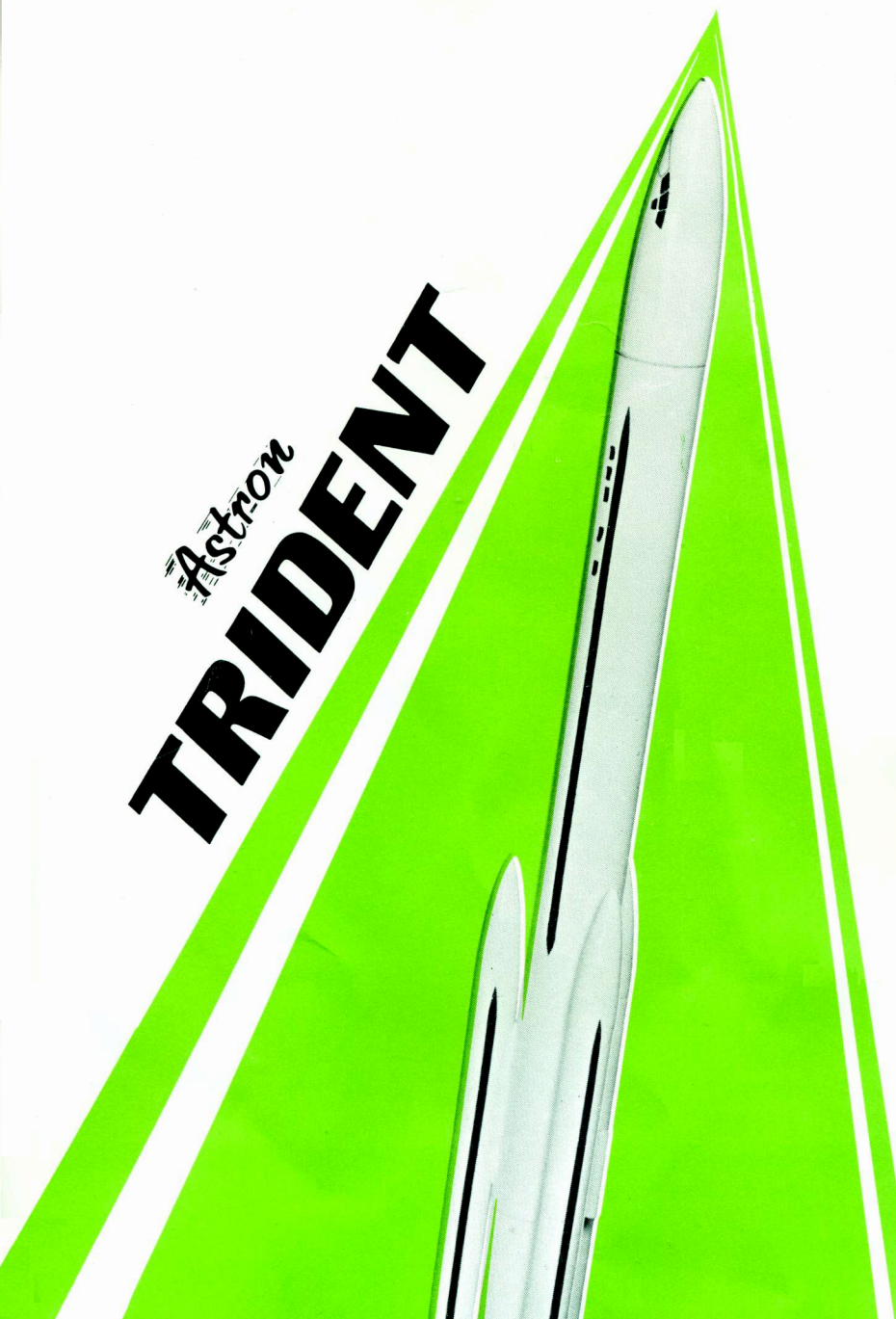
Astron TRIDENT



- NEARLY 3 FEET TALL
- FUTURISTIC DESIGN
- EJECTION DUCTING SYSTEM

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