

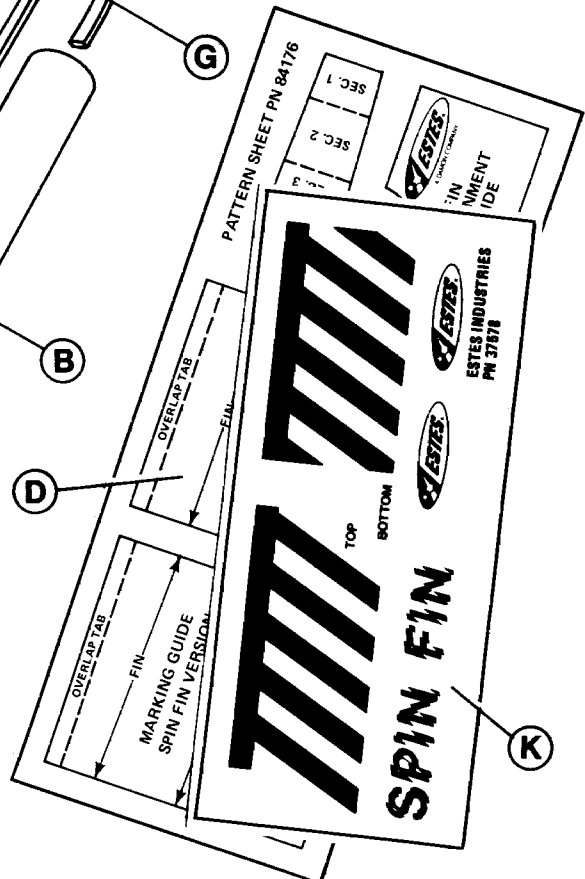
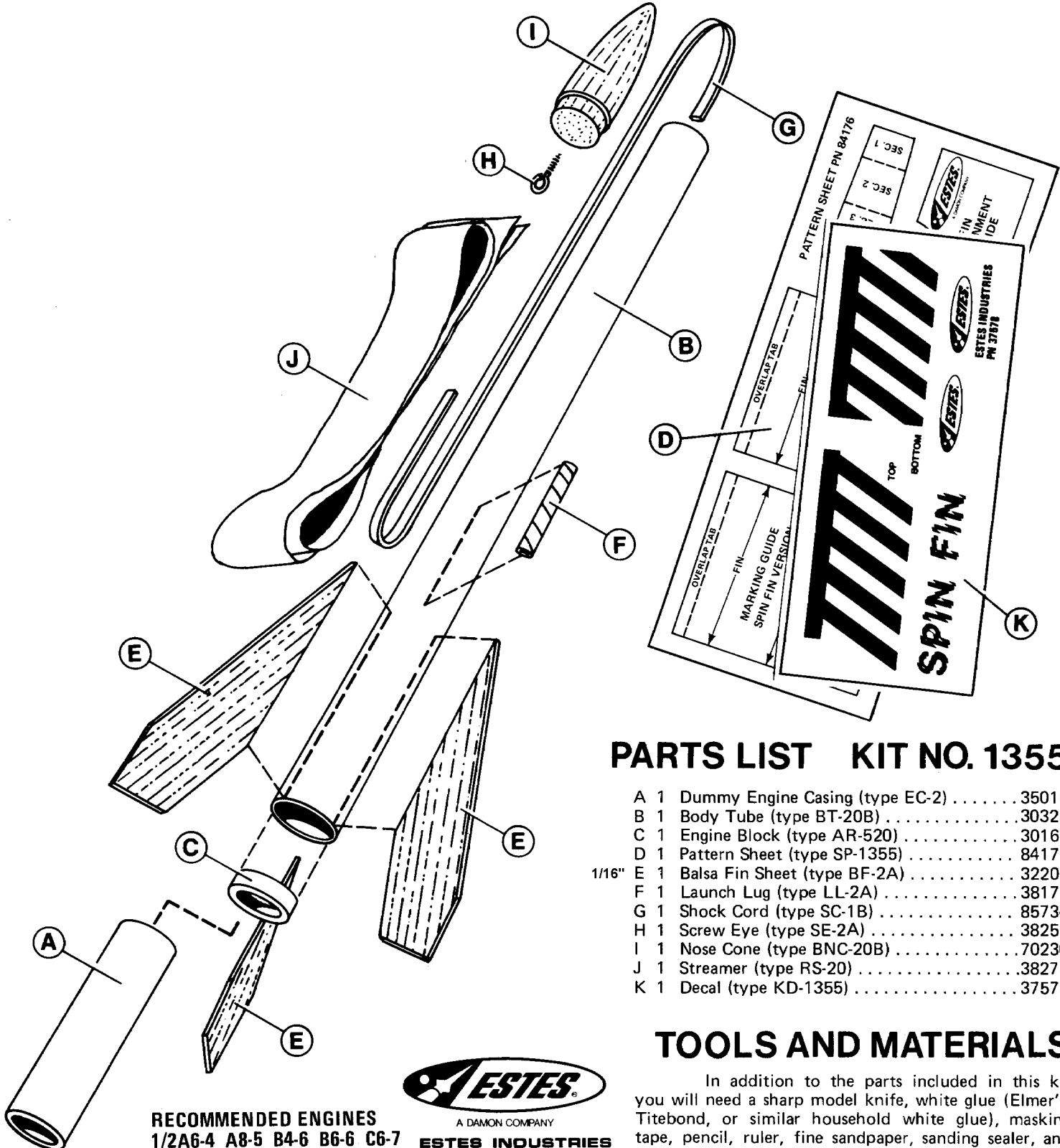


SPIN FIN

BEFORE YOU START

Read all instructions before beginning work on your model. Make sure you have all parts and materials. When you are thoroughly familiar with the assembly procedure, begin construction. Check off each step as you complete it. In each step, test-fit the parts together before applying any glue. If some part doesn't fit properly, sand lightly or build up as required for precision assembly.

SKILL LEVEL 1 - Recommended for Beginning Rocketeers



PARTS LIST KIT NO. 1355

A	1	Dummy Engine Casing (type EC-2)	35010
B	1	Body Tube (type BT-20B)	30320
C	1	Engine Block (type AR-520)	30162
D	1	Pattern Sheet (type SP-1355)	84176
1/16" E	1	Balsa Fin Sheet (type BF-2A)	32202
F	1	Launch Lug (type LL-2A)	38175
G	1	Shock Cord (type SC-1B)	85734
H	1	Screw Eye (type SE-2A)	38252
I	1	Nose Cone (type BNC-20B)	70230
J	1	Streamer (type RS-20)	38278
K	1	Decal (type KD-1355)	37578

RECOMMENDED ENGINES
1/2A6-4 A8-5 B4-6 B6-6 C6-7



A DAMON COMPANY

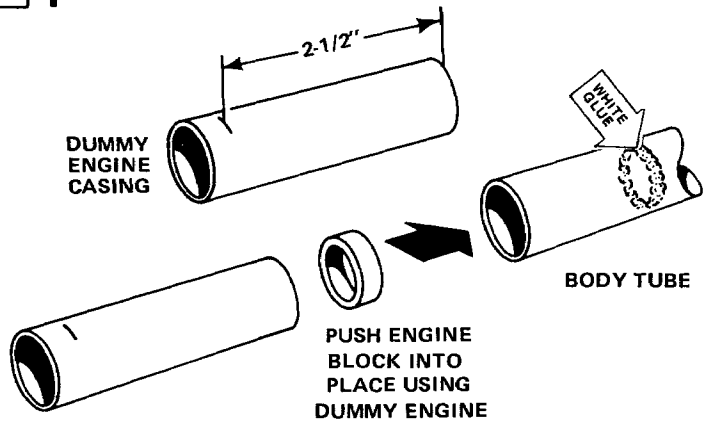
ESTES INDUSTRIES
PENROSE, CO 81240 USA

TOOLS AND MATERIALS

In addition to the parts included in this kit you will need a sharp model knife, white glue (Elmer's, Titebond, or similar household white glue), masking tape, pencil, ruler, fine sandpaper, sanding sealer, and gloss white and gloss red spray enamel paint.

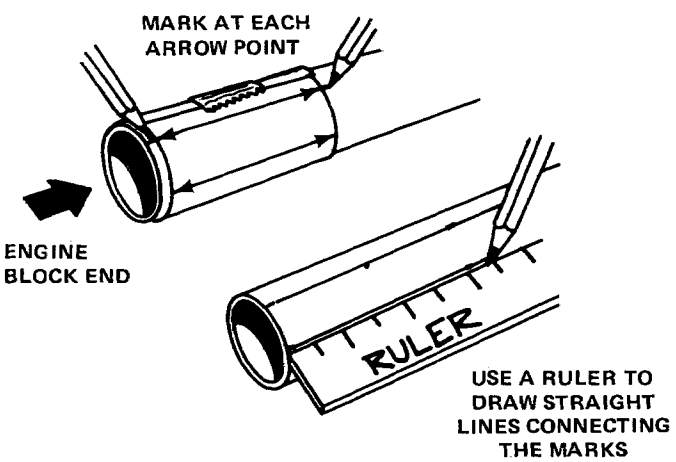
Page 2
ASSEMBLY INSTRUCTIONS

□ 1



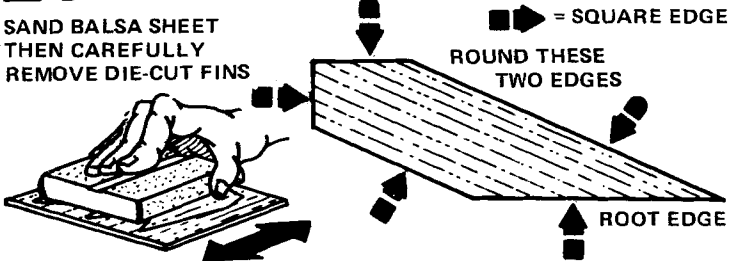
Mark the dummy engine casing (part A) 2-1/2" from one end. Spread a 1/4" wide band of glue around the inside of the body tube (part B) about 2" in from one end. Insert the engine block (part C) into this end. Push the engine block into place with the dummy engine casing until the mark on the casing is even with the end of the body tube. Remove the dummy casing immediately.

□ 2



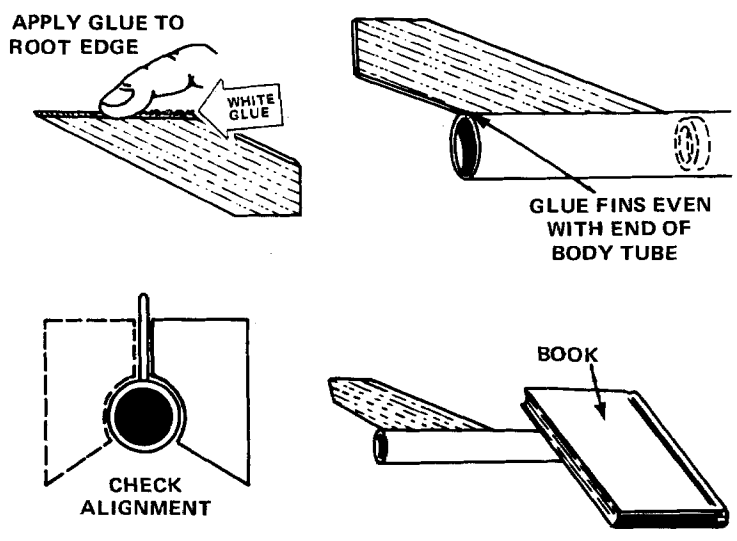
There are two tube marking guides on the pattern sheet (part D). One is for the spin fin version, the other is for a conventional straight fin version. If you build the straight fin version, the rocket will not spin during ascent. Cut out the marking guide chosen and wrap it around the body tube near the end in which you installed the engine block. Tape the ends of the guide together and place a mark on the tube at each arrow point. Remove the guide and draw straight lines connecting the marks (use a ruler). The line for the launch lug location should be extended up the tube for a couple of inches further than the fin lines.

□ 3



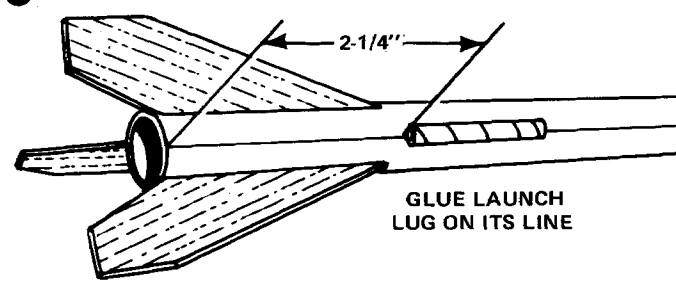
Fine-sand the balsa sheet (part E), then carefully remove the die-cut fins from the sheet. Free the edges with a sharp knife. Sand the leading and tip edges round. Leave the other edges square.

□ 4



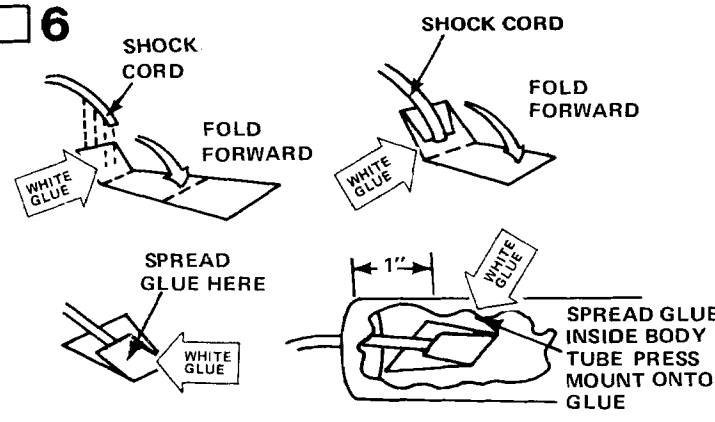
Cut the fin alignment guide from the pattern sheet. Rub a small amount of glue into the root edge of a fin. Allow the glue to partially dry. Apply a second bead of glue to the root edge and attach to body on one of the fin guide lines. Check alignment by placing the alignment guide on first one then the other side of the fin. Set the body on a flat surface with the fin pointing straight up. Weight the front of the body with a book and allow glue to dry completely. Attach the remaining fins in the same manner.

□ 5



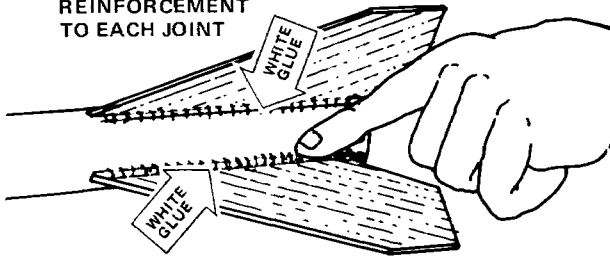
Glue the launch lug (part F) to the body on its line. The rear of the lug should be 2-1/4" from the rear of the body. Align it straight on the body.

□ 6



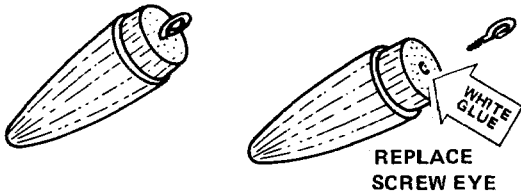
Cut out the shock cord mount. Pre-fold it on the dotted lines. Apply glue to section 1 and lay the shock cord (part G) into the glue. Fold over and apply glue to the back of the first section and the exposed part of section 2. Lay the shock cord as shown and fold over again. Clamp the unit together with your fingers until the glue sets. Glue the mount inside the forward end of the body tube 1" from the end as shown.

- 7** APPLY GLUE REINFORCEMENT TO EACH JOINT



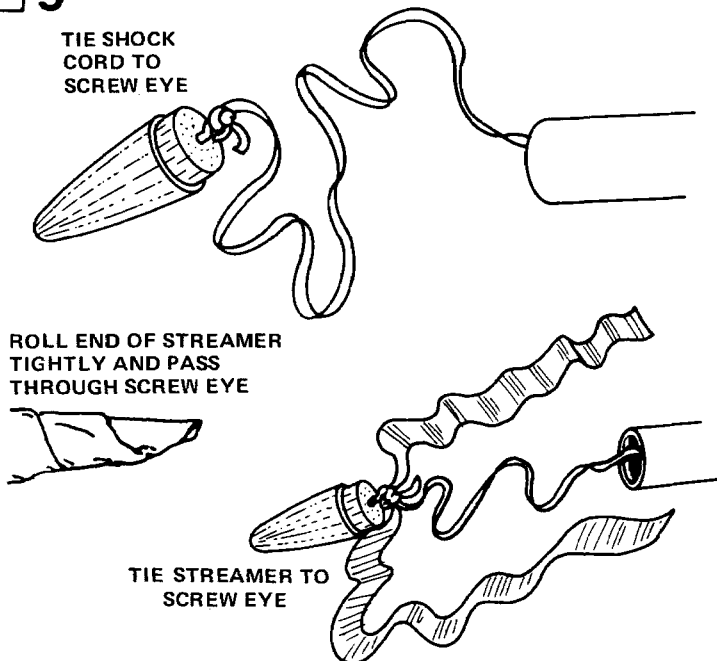
Apply a glue reinforcement to both sides of each fin joint. Holding the rocket horizontally, apply a line of glue to the joint and smooth it out with your finger. Support the rocket horizontally until the glue dries on all six reinforcements.

- 8** INSERT SCREW EYE, REMOVE, SQUIRT GLUE INTO HOLE



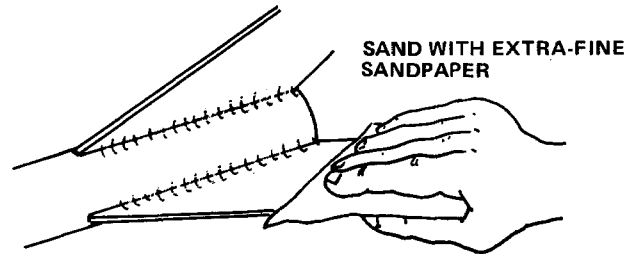
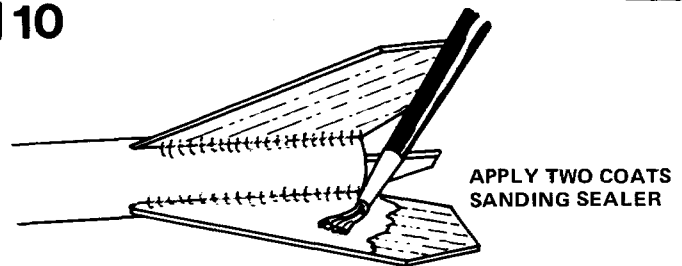
Insert the screw eye (part H) into the base of the nose cone (part I). Remove the screw eye and squirt a small amount of glue into the hole. Replace the screw eye. Push the shock cord down into the body so it is out of the way. Check the fit of the nose cone into the body. Socket the nose cone into place. The nose cone base should slide easily into the tube, but should not be too loose. If the fit is too tight, lightly sand the base until a good slip fit is obtained. If the nose cone is too loose, wrap cellophane tape around the base.

- 9** TIE SHOCK CORD TO SCREW EYE



After the glue on the rocket has dried enough so it can be safely handled, tie the free end of the shock cord to the screw eye. Pass one end of the streamer (part J) through the screw eye and continue to pull the streamer until its length is centered in the eye. Tightly tie the streamer to the screw eye with a knot.

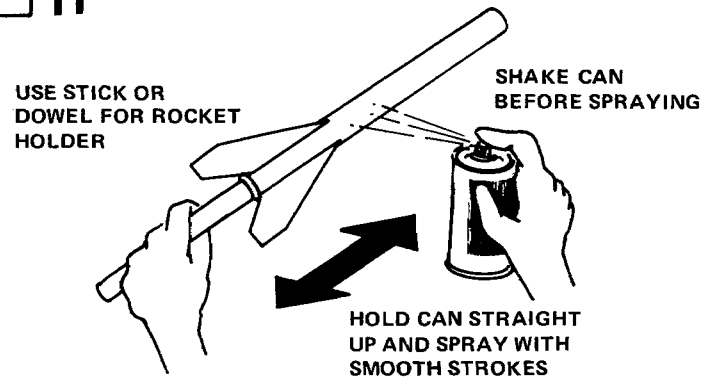
- 10**



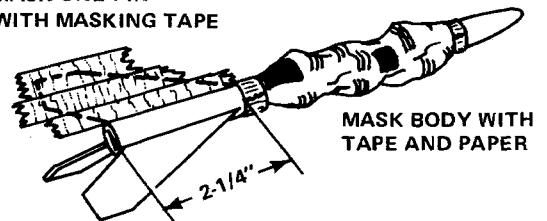
Lightly sand the fins and nose cone until the balsa feels smooth. Apply two or more coats of sanding sealer to all balsa surfaces. Sand lightly with extra-fine grit sandpaper between coats. Repeat until pores are filled and the surfaces look and feel smooth.

PAINTING AND DETAILING

- 11**



- MASK ONE FIN WITH MASKING TAPE**



Paint the model gloss white. Let dry for at least four hours. Use masking tape to completely cover the fin that is on the opposite side of the body from the launch lug. Make sure the tape covers the fin completely. Wrap masking tape around the body even with the bottom of the launch lug. Wrap paper around the upper portion of the body and tape in place. Leave the nose cone exposed. Spray the lower portion of the body and the nose cone bright red. After the paint is completely dry, carefully remove the masking tape and paper.

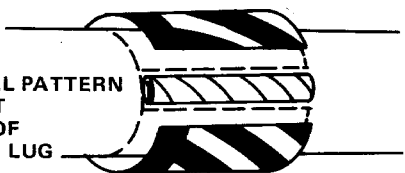
DECAL PLACEMENT

12



DIP DECALS IN WATER FOR 15 OR 20 SECONDS

BOTTOM ROLL PATTERN FITS AGAINST BOTH SIDES OF THE LAUNCH LUG



When the paint is dry, apply the decals. Cut out a decal section, dip in water for 15 or 20 seconds (until decal slides on backing paper), then slide decal from backing paper onto model. Gently blot decal with a clean cloth to remove excess moisture and air bubbles. Note that the bottom roll pattern is shorter than the top roll pattern and fits against both sides of the launch lug.

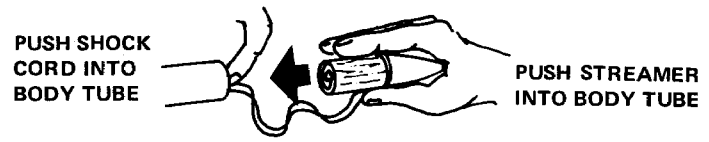
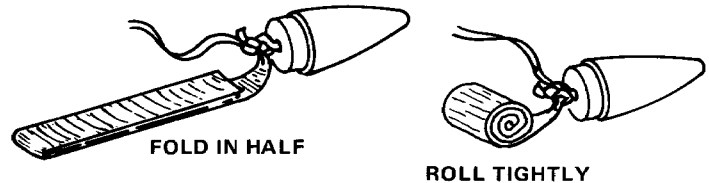
LAUNCHING COMPONENTS

To launch your rocket you will need the following items:
An Estes model rocket launch system
Parachute recovery wadding (Estes Cat. No. 2274)
Estes 1/2A6-4, A8-5, B4-6, B6-6, or C6-7 model rocket engines. Use an A8-5 engine for your first flight.

Be sure to follow the HIAA-NAR* Model Rocket Safety Code when carrying out your model rocket activities.
*HIAA -- Hobby Industry Association of America
NAR -- National Association of Rocketry

COUNTDOWN CHECKLIST

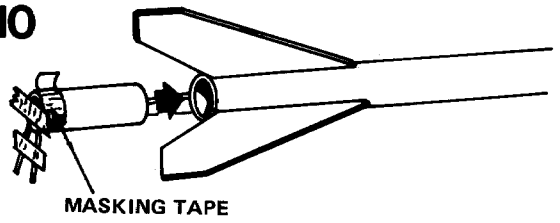
T-12



Pack three squares of loosely crumpled recovery wadding into the body tube. Fold the streamer in half and roll tightly. Streamer should be rolled tight enough to easily enter the body tube. Turn the streamer so it is lined up beneath the nose cone. Hold the nose cone and the streamer in one hand, and with the other hand, push the shock cord down into the body tube. Push the streamer into the tube and socket nose cone in place.

T-11 Select an engine and install an igniter as directed in the engine instructions. Engines recommended for use with this rocket are 1/2A6-4, A8-5, B4-6, B6-6, and C6-7. Use an A8-5 engine for your first flight.

T-10



Wrap the rear of the engine with enough masking tape so that it makes a tight fit in the body tube. This fit must be tight to obtain proper streamer deployment. Insert the engine into the rocket so the rear of the engine projects 1/4" from the rear of the body tube.

T-9 Disarm the launch panel -- REMOVE SAFETY KEY.

T-8 Place the rocket on the launch pad, making sure the rocket slides freely on the launch rod. Clean the micro-clips and attach them to the igniter.

T-7 Clear the launch area, alert recovery crew and trackers. Check for low flying aircraft and unauthorized persons in the recovery area.

T-6 Arm the launch panel -- INSERT SAFETY KEY.

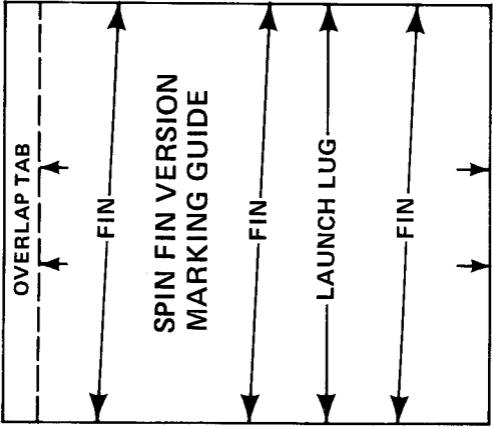
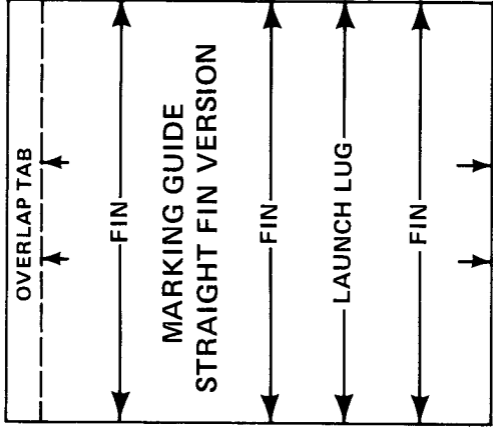
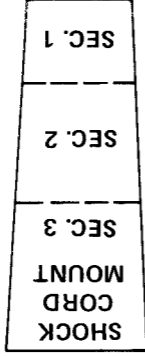
-5-4-3-2-1-LAUNCH!!

Repeat Countdown Checklist for each flight.

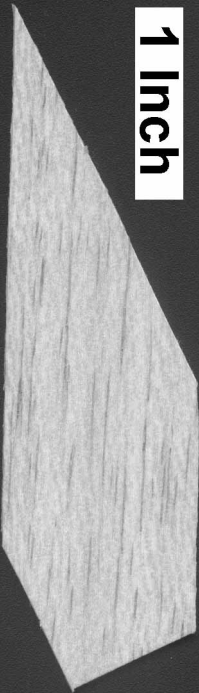
MISFIRE PROCEDURE

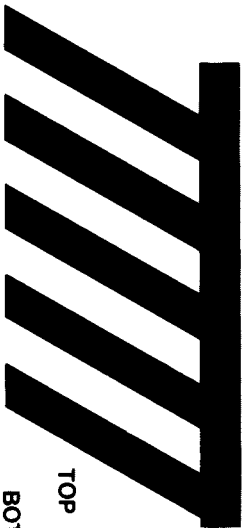
Occasionally the igniter will heat and burn into two pieces without igniting the engine. This is almost always caused by a failure to install it correctly. Disarm the launch panel, remove the model, clean the igniter residue from the nozzle, and install a new igniter. Repeat the Countdown Checklist.

PATTERN SHEET PN 84176



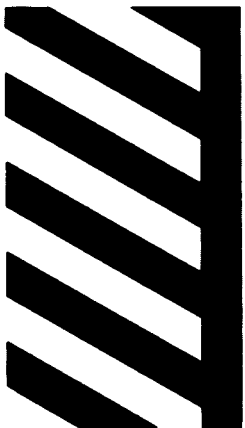
1 inch





TOP

BOTTOM



SP1M F1M



ESTES INDUSTRIES
PN 37578

SPIN FIN

FLYING MODEL ROCKET

SKILL LEVEL 1

1-Beginner 2-Intermediate 3-Confused
4-Advanced 5-Expert

- Unique Spin-Flight Design
- Spectacular Flights Over 1,200'
- Dramatic Curling Smoke Trail
- Easy-To-Assemble
- Die-Cut Balsa Fins
- Kit Decals
- 30" Streamer Recovery

Length:
11.6" (29.46 cm)

Diameter:
.726" (18.7 mm)

Weight:
.8 oz. (17 g)

Engine Types:
1/2A6-4, A8-5 (for Fin.),
B4-5, B6-5, C6-7

This is a hobby kit requiring assembly. Recommended for ages 10 to adult. Engines, launch system, glue and finishing supplies are not included. Adult supervision is suggested for those under 12 years of age when flying model rockets.



A TRU-ART COMPANY

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PENNSDALE, CO 81040 USA

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