

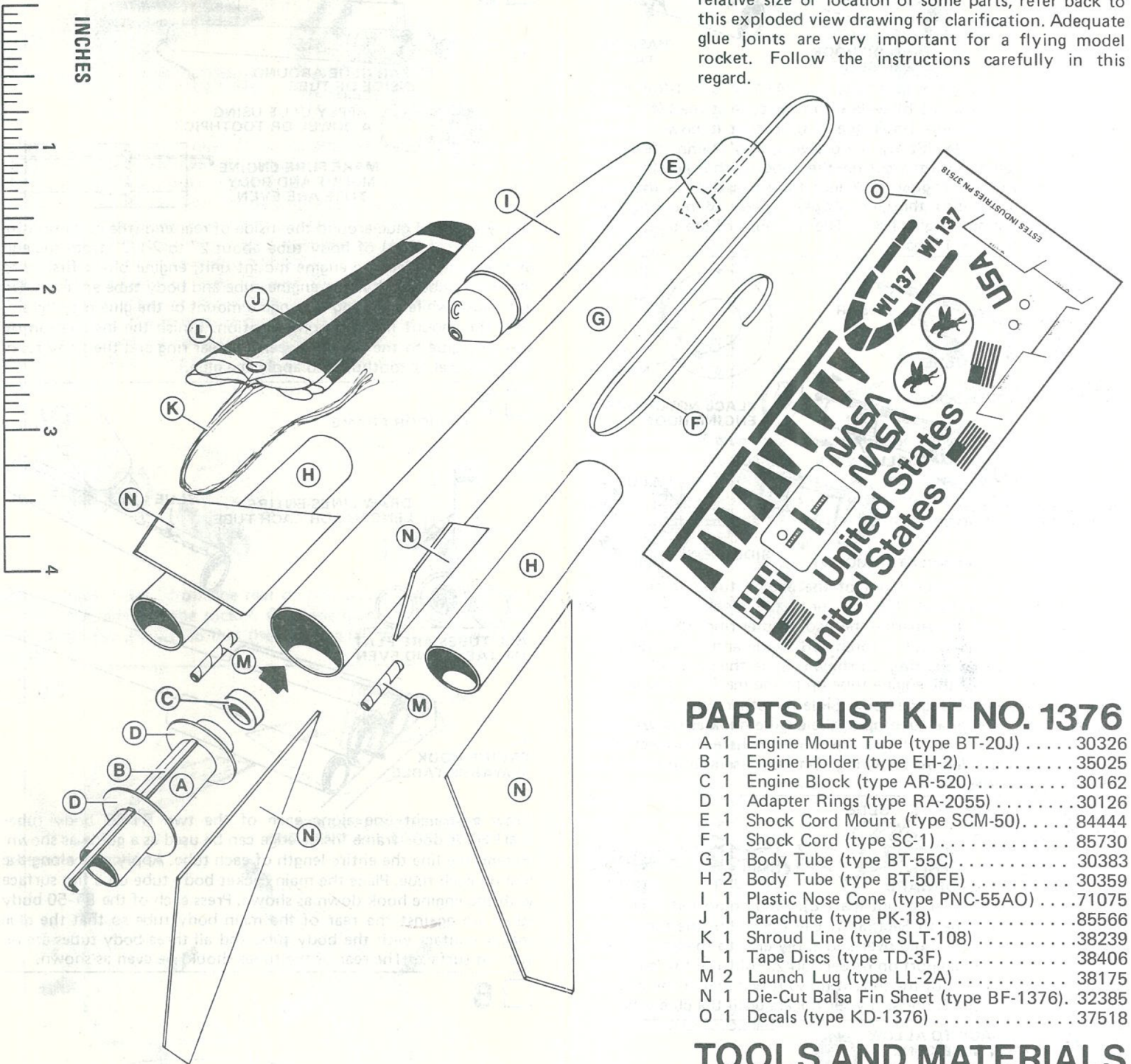


# PEGASUS

SKILL LEVEL 2 - Recommended for Intermediate Rocketeers.

## BEFORE YOU START

Read each step and study the accompanying drawings before doing any of the work called for in that step. Make sure you have all parts and materials. Check off each step as you complete it. Always test-fit parts together before applying glue. It will sometimes be necessary to sand edges of rings, tubes, etc. to obtain a proper fit. If you are in doubt about the relative size or location of some parts, refer back to this exploded view drawing for clarification. Adequate glue joints are very important for a flying model rocket. Follow the instructions carefully in this regard.



## PARTS LIST KIT NO. 1376

A	1	Engine Mount Tube (type BT-20J) . . . . .	30326
B	1	Engine Holder (type EH-2) . . . . .	35025
C	1	Engine Block (type AR-520) . . . . .	30162
D	1	Adapter Rings (type RA-2055) . . . . .	30126
E	1	Shock Cord Mount (type SCM-50) . . . . .	84444
F	1	Shock Cord (type SC-1) . . . . .	85730
G	1	Body Tube (type BT-55C) . . . . .	30383
H	2	Body Tube (type BT-50FE) . . . . .	30359
I	1	Plastic Nose Cone (type PNC-55AO) . . . . .	71075
J	1	Parachute (type PK-18) . . . . .	85566
K	1	Shroud Line (type SLT-108) . . . . .	38239
L	1	Tape Discs (type TD-3F) . . . . .	38406
M	2	Launch Lug (type LL-2A) . . . . .	38175
N	1	Die-Cut Balsa Fin Sheet (type BF-1376) . . . . .	32385
O	1	Decals (type KD-1376) . . . . .	37518

## TOOLS AND MATERIALS

In addition to the parts included in this kit you will need: Scissors, pencil, ruler, fine or extra-fine grit sandpaper, sanding sealer, masking tape, a medium-size modeling paint brush, modeling knife with sharp blade, gloss white enamel spray paint, and household white glue or resin glue (Elmer's, Titebond, or similar). Other types of glue are not recommended.

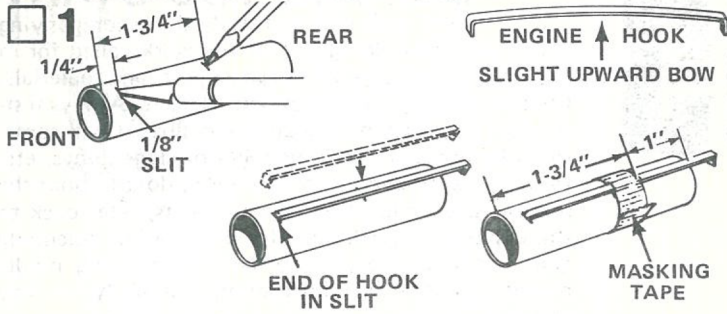
**RECOMMENDED ENGINES:**  
A8-3, B4-2, B6-2, B6-4, B8-5, C5-3, C6-3  
First Flight A8-3



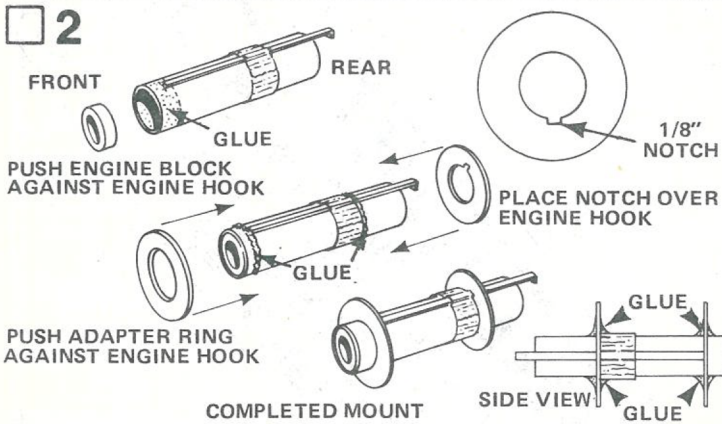
A DAMON COMPANY

**ESTES INDUSTRIES**  
PENROSE, CO 81240 USA

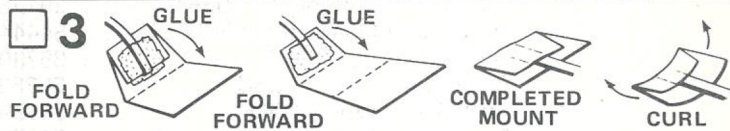
# ASSEMBLY INSTRUCTIONS



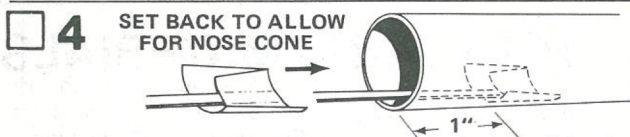
Mark across the engine mount tube (part A) 1/4" and 1-3/4" from one end as shown. Cut a 1/8" wide slit in the tube at the 1/4" mark. Gently bend the engine hook (part B) so that it bows up very slightly in the middle. (Study the drawing, don't bend the wrong way.) Apply glue from the slit on the tube to the 1-3/4" mark. Push one end of the engine hook into the tube and press the main part of the hook into the glue. Apply a piece of masking tape around the tube and engine hook. The rear edge of the tape should be even with the 1-3/4" mark.



Apply glue to the inside front of the engine tube. Immediately push in the engine block (part C) until the block is against the engine hook. Carefully separate the two adapter rings (part D) from the die-cut card sheet. Cut a notch 1/8" wide and 1/16" deep on the inside of one of the rings as shown. Slide the notched adapter ring over the rear of the engine tube up to the masking tape so that the notch is over the engine hook. Slide the other adapter ring over the front of the engine tube up to the engine hook as shown. Glue the rings in place by applying a line of glue where ring meets tube all around both sides of each ring. Set the assembly on one end while the glue dries.



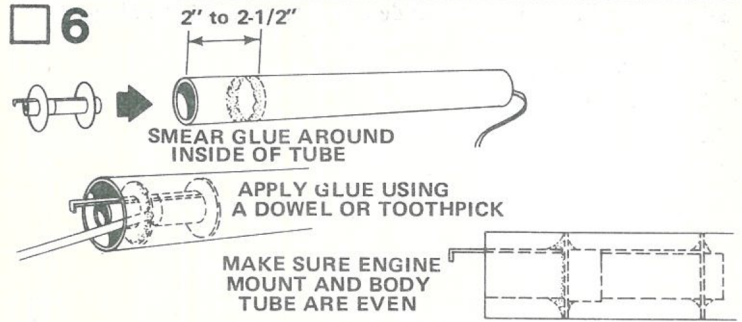
Cut out the shock cord mount (part E). Fold on dotted lines then unfold and apply glue to Section 1. Lay the end of the shock cord (part F) into the glue. Fold over and apply glue to the back of Section 1 and the exposed portion of Section 2. Fold again to complete mount. Curl the edges of the mount up so it will match the contour of the body tube and hold with your fingers until the glue sets.



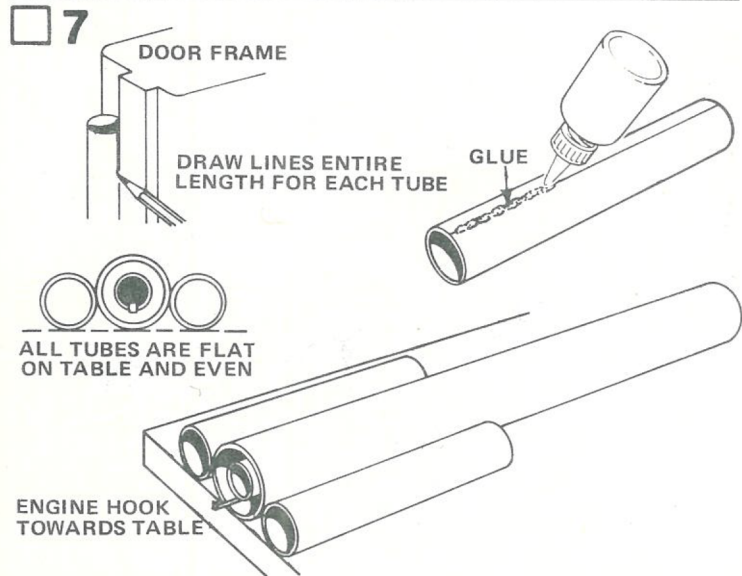
Use a finger or stick to apply glue to the inside of the front of the main body tube (part G), 1" to 2" from the front of the tube. Press the shock cord mount firmly into position in glue far enough from the front edge of the tube to allow clearance for the nose cone to fit into place. To insure a good bond use a stick or your finger to smear a film of glue over the mount and surrounding area in the body tube.



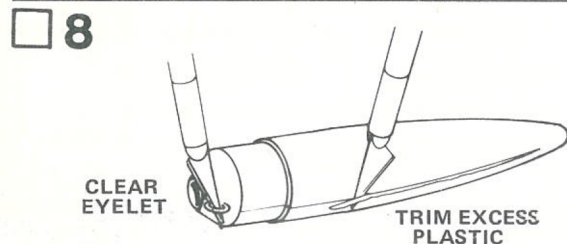
When the glue on the engine mount has dried completely, check the fit of the rings inside the body tube. The rings should slide easily into the tube. If the fit is tight, sand the outer edges of the rings until they slide easily in the body tube.



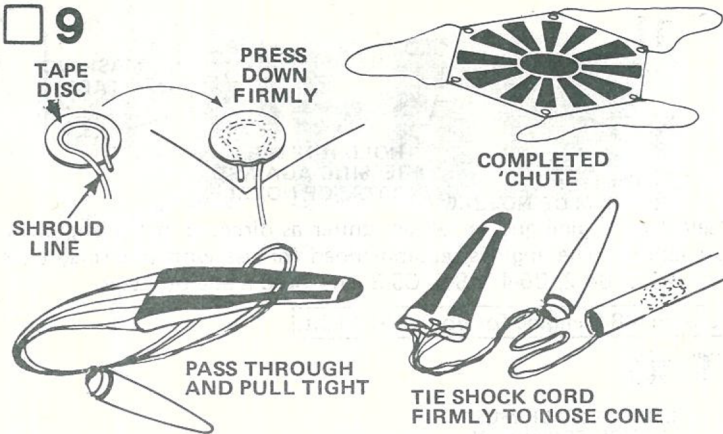
Apply a ring of glue around the inside of rear end (the end opposite shock cord mount) of body tube about 2" to 2-1/2" from the end of the tube. Slide the engine mount unit, engine block first, into the body tube so that the engine tube and body tube are even. Do not pause while inserting the engine mount or the glue may "grab" with the mount in the wrong position. Finish the installation by applying glue to the joint between the rear ring and the body tube. (Use a dowel or toothpick to apply the glue.)



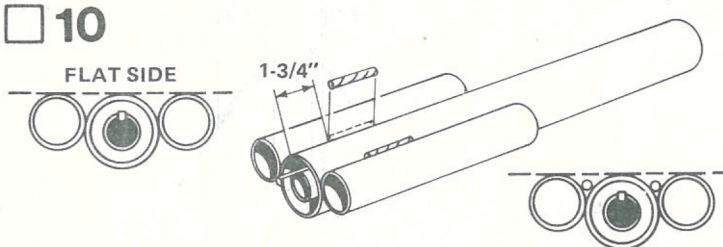
Draw a straight line along each of the two BT-50 body tubes (part H). A door frame inside edge can be used as a guide as shown. Extend the line the entire length of each tube. Apply glue along the line on each tube. Place the main rocket body tube on a flat surface with the engine hook down as shown. Press each of the BT-50 body tubes up against the rear of the main body tube so that the glue makes contact with the body tube and all three body tubes are on the flat surface. The rear of the tubes should be even as shown.



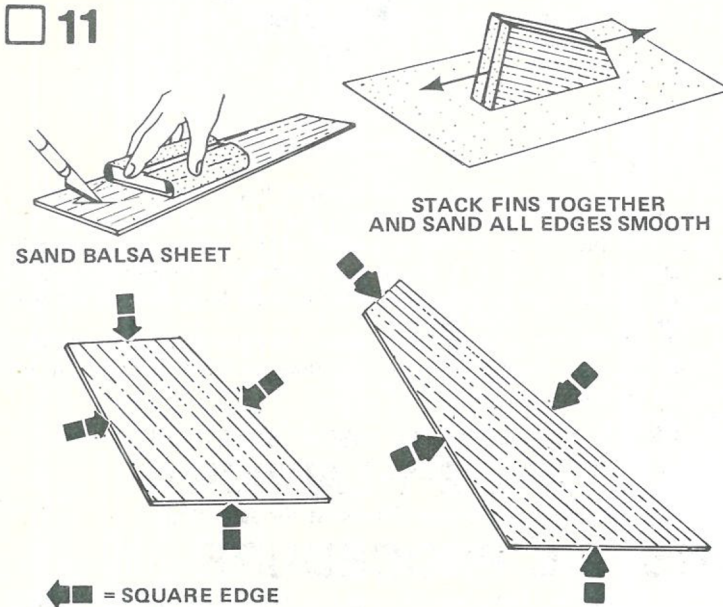
Trim or sand any excess plastic from around the sides of the nose cone (part I). Use a sharp knife to remove any excess plastic from the inside of the molded eyelet at the rear of the nose cone. Wash the nose cone with lukewarm soapy water, rinse well, and dry.



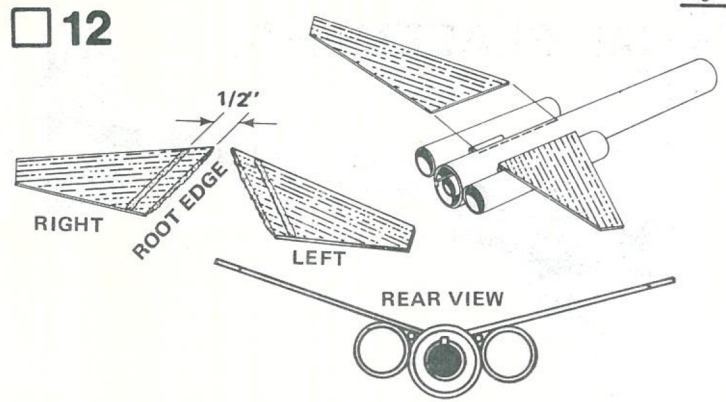
Cut out the parachute (part J) on its edge lines. Cut three equal lengths of shroud line (part K). Attach line ends to the top of the parachute with tape discs (part L) as shown. Form a small loop in the end of a shroud line. Holding loop, gently center loop inside tape disc on the sticky side. Then carefully press tape disc onto its proper place on the top of the parachute. Firmly press the tape disc into place until both tape disc and parachute material are molded around the shroud line loop. Repeat for other shroud line ends and tape discs. Pass the shroud line loops through the loop on the nose cone. Pass the parachute through the loop ends and pull the lines tight against the nose cone. Tie the free end of the shock cord firmly to the nose cone loop. A square knot or strong double knot should be used.



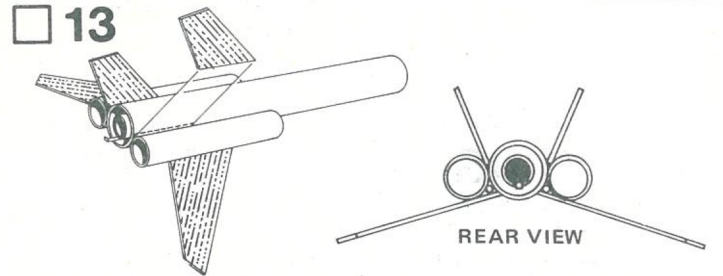
Make a mark 1-3/4" from the rear of the rocket near each groove on the "flat side" of the rocket. Glue one launch lug (part M) into each of the two grooves so that the rear of a launch lug is at each of the marks.



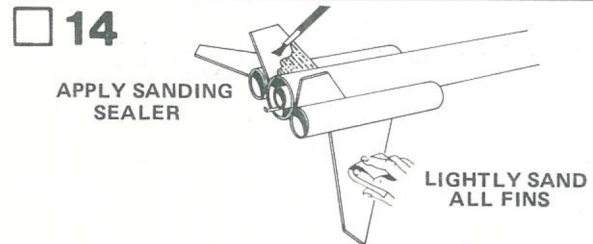
Fine-sand the balsa die-cut sheet (part N). Free the edges with a sharp knife, then carefully remove the die-cut fins from the sheet. Stack the fins in two sets as shown. Lightly sand the edges of the fins smooth. Leave all fin edges square.



Apply a line of glue along the root edge, and apply another line of glue 1/2" away from the root edge on each of the two large fins as shown. Be sure to make a left fin and a right fin. Place each fin onto the rocket so that the rear of the fin is at the rear of the launch lugs. The root edge of each fin should be against the main body tube and the side should be on the engine tube as shown.

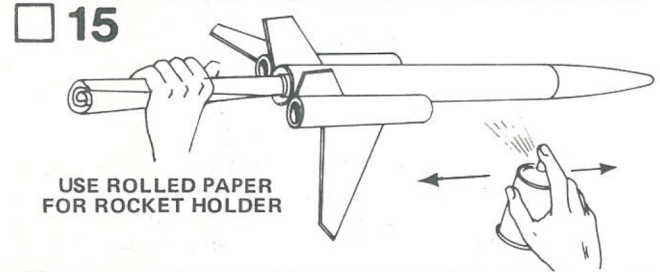


Apply a line of glue along the root edge of each of the small fins and allow the glue to dry. Apply another line of glue to each fin and place each fin into a groove on the top of the rocket so that the rear of the fin is at the rear of the rocket. Position each fin so that it projects slightly away from the main body tube as shown.



Allow all glue to dry thoroughly before proceeding. Proper application of sanding sealer makes the rocket look better and reduces drag so that the rocket will fly higher. Apply a coat of sanding sealer to each fin. When sealer is dry, lightly sand all the sealed surfaces. Repeat sealing and sanding process until balsa grain is filled and smooth.

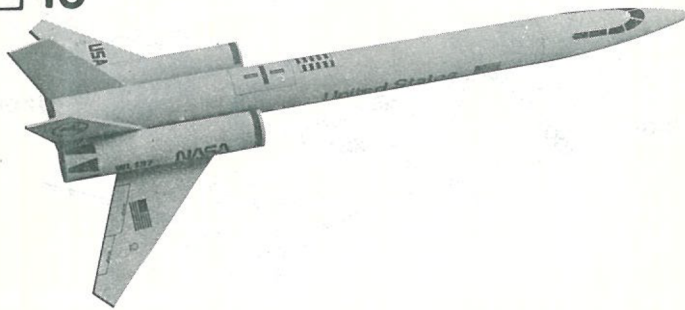
## PAINING AND DETAILING



After the sanding sealer is completely dry, paint the entire model gloss white. Follow instructions on spray can for best results. We recommend spray enamel. Do not paint the model with lacquer paint. Shake can before spraying. Hold can straight up and spray in long, smooth "strokes". Spray the model with several light, dry mist coats of paint to avoid "runs". Shake can periodically. To obtain a gloss, final coat should be applied slightly heavier. Let this coat dry overnight. Be sure paint is completely dry before applying decals.

# DECAL PLACEMENT

16



When all paint is dry, apply the decals (part O) in the positions shown. (A) Cut only one decal at a time from sheet. (B) Submerge decal in lukewarm water until decal slides on backing paper (usually 15 to 30 seconds). (C) Gently slide decal from backing paper onto model. (D) Move decal into exact position and carefully blot away excess water with a soft cloth. (E) If the decal "sticks" before you have it in position, apply water over the decal with a brush. This will permit the decal to be moved. (F) Smooth out all wrinkles and air bubbles before the decal dries. We recommend that the completed model be sprayed with Testor's "Gloss Cote". This is a clear spray paint which protects the model's finish.

## LAUNCHING COMPONENTS

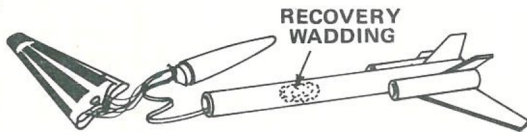
To launch your rocket you will need the following items:

- An Estes model rocket launching system
- Flameproof recovery wadding (Estes Cat. No. 2274)
- Estes A8-3, B4-2, B6-4, B8-5, C5-3, or C6-3 model rocket engines. Use an A8-3 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

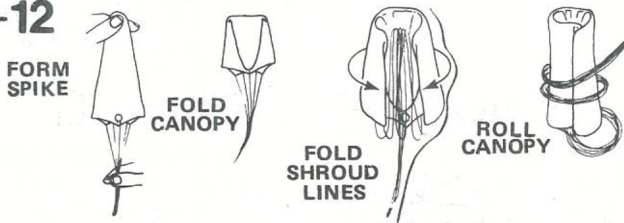
## COUNTDOWN CHECKLIST

T-13



Pack 5 or 6 squares of loosely crumpled recovery wadding into the body tube. Usually this will fill the body tube for a distance equal to about 1-1/2 times its diameter.

T-12



Hold the parachute at its center and pass the other hand down it to form a "spike" shape. Fold this spike in half. Fold shroud lines back along parachute and then back down to lower edge of parachute to reduce length of shroud line "left over". Roll parachute into tube shape to fit easily into body. Any remaining shroud line should be loosely wrapped around parachute. Pack chute into the body 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.

NOTE: DO NOT pack parachute until you are actually ready to launch. For maximum parachute reliability, lightly dust the chute with ordinary talcum powder before each flight, especially in cold weather.

T-11

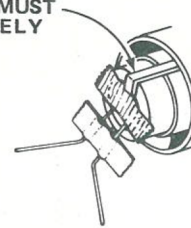


Select an engine and install an igniter as directed in the engine instructions. The engines recommended for use with this rocket are the A8-3, B4-2, B6-4, B8-5, C5-3, and C6-3 made by Estes.

Use an A8-3 engine for your first flight.

T-10

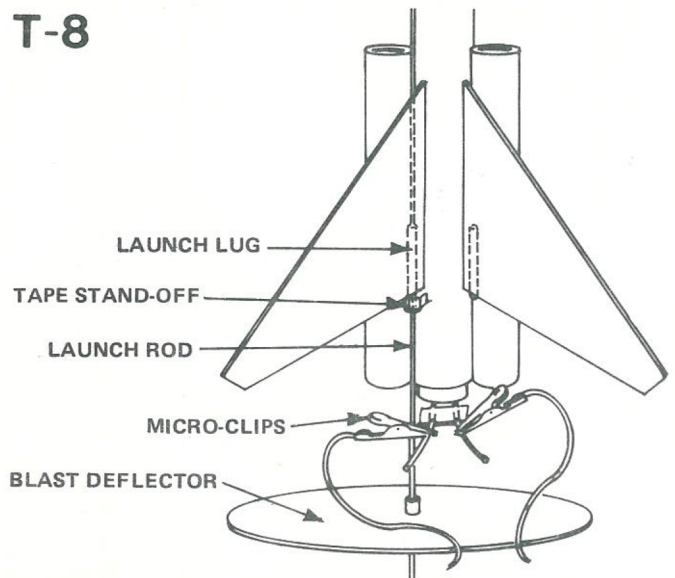
ENGINE HOOK MUST LATCH SECURELY



Insert engine into rocket engine mount. Engine hook must latch securely over end of the engine.

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

T-8



Slide launch rod through rocket launch lug and place rocket on launch pad. Make sure the rocket slides freely on the launch rod. Clean the micro-clips and attach them 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.

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!!**

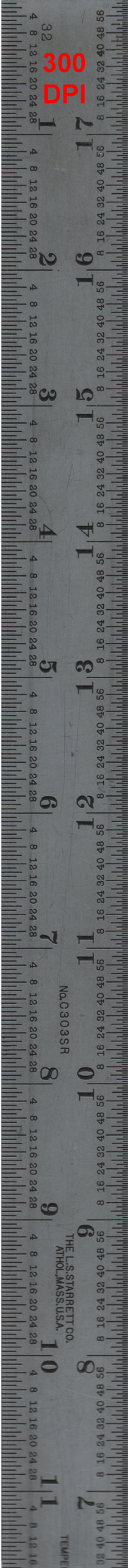
Repeat Countdown Checklist for each flight.

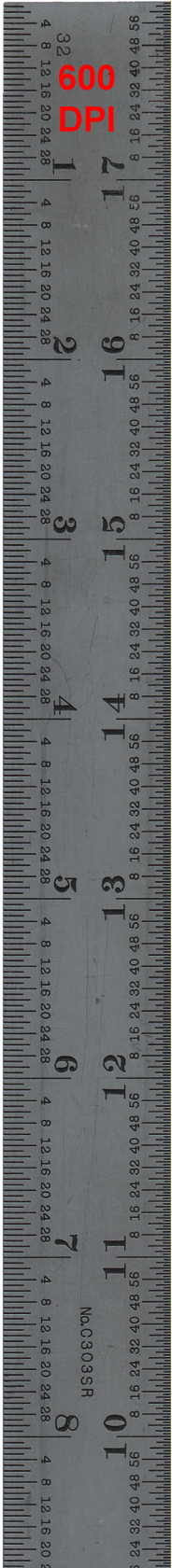
## MISFIRE PROCEDURE

Disarm the launch panel. Wait one minute before approaching the rocket on the launch pad. Remove the rocket, clean the igniter residue from the nozzle of the engine, and carefully install a new igniter. Repeat the Countdown Checklist.

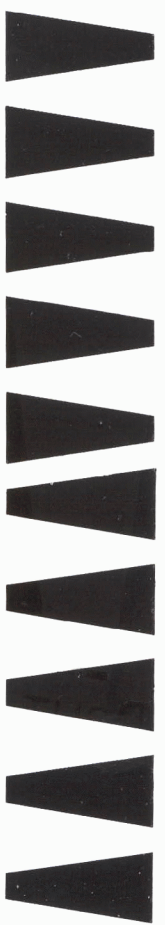
Failure of the rocket engine to function properly is nearly always caused by a failure to install the igniter correctly. This failure permits the igniter to heat and burn into two pieces without igniting the engine.

3/32"

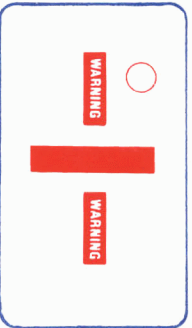




600  
DPI



WL 137 WL 137



NASA  
NASA



USA



United States

United States



FUEL

FUEL

NO STEP

NO STEP

NO STEP

NO STEP



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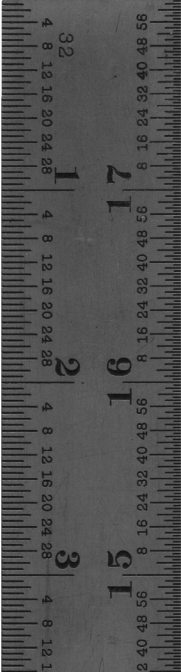
**SEC. 3**

*PN 84444*

**SEC. 2**

**SEC. 1**

**SHOCK CORD  
MOUNT  
SCM-50**





PARTS LIST KIT NO. 1376 - Pegasus								
Quantity	Description	Type	Number	Details1	Details2	Details3	Details4	Comment
1	PAPER BODY TUBE	BT-20J	30326	2.75" long	0.710" ID	0.736" OD	0.013" wall	Glassine
1	ENGINE HOLDER	EH-2	35025	2.8" long	.100" wide	.025" thick		Reg. & D
1	CENTERING RINGS	AR-520	30162	.69" OD	.542" ID	0.25" long	BT-5 in BT-20	Green
1	PAPER ADAPTER	RA-2055	30126	0.738" ID	1.27" OD	.05" thick	Set of 2	One ring notched.
1	Shock Cord Mount	SCM-50	84444	1.5" wide	3" long	67 lb. Cardstock	BT-50 & larger	Scan
1	Shock Cord	SC-1	85730	18" long	1/8" wide			Rubber
1	PAPER BODY TUBE	BT-55C	30383	14" long	1.283" ID	1.325" OD	0.021" wall	Glassine
2	PAPER BODY TUBE	BT-50FE	30359	6.5" long	0.950" ID	0.976" OD	0.013" wall	Glassine
1	PLASTIC NOSE CONE	PNC-55AO	71075	5.0" long	1.325" dia.	.5" shoulder	BT-55	Blow molded
1	Parachute	PK-18	85566	18" dia.	18" x 6 Shrouds	LDPE plastic	Org/Blk/Wht	Damon Logo
1	Shroud Line	SLT-108	38239	108"	.020" diameter	Twisted cotton	Cut to 3 x 36"	
1	Tape Disc	TD-3F	38406	1/2" dia.	Paper	Self-Stick	WO/Center Hole	Set of 6
2	LAUNCH LUG	LL-2A	38175	5/32" ID	1/8" rod	1.25" long		Mylar
1	Balsa Fin Sheet	*BF-1376	32385	3" wide	12" long	3/32" thick	Die-Cut	Scan
1	Decal	KD-1376	37518	3.75" wide	8.75" long	Red, Blk, Blu	Waterslide	Scan
*	BALSA FIN STOCK	BFS-30L	3170	3" wide	12" long	3/32" thick	0.09375	

# Pegasus

## FLYING MODEL ROCKET

- Medium Range Stellar Research Craft
- Die-Cut Balsa Parts
- Plastic Nose Cone
- 3-Color Kit Decal
- 18" Parachute Recovery
- Quick-Release Engine Mount

Flights  
Over  
800'

Length:  
19.75" (50.2cm)

Diameter:  
1.325" (3.37mm)

Weight:  
2.36 oz. (67g)

Engine Types:  
A8-3 (First Flight),  
B4-2, B6-4, B8-5,  
C5-3, C6-3



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 DAWSON COMPANY

ESTES INDUSTRIES  
PENROSE, CO 81240 USA

#1376

# Pegasus

## FLYING MODEL ROCKET

SKILL LEVEL 3

- Medium Range Shuttle Research Craft
- Die-Cut Balsa Parts
- Plastic Nose Cone
- 3-Color Kit Decal
- 18" Parachute Recovery
- Quick Release Engine Mount

Flights  
Over  
600'

United States

ESTES  
MODEL  
ROCKETRY



ESTES MODEL ROCKETRY  
10000  
10000



#1376

ESTES MODEL ROCKETRY  
10000  
10000