





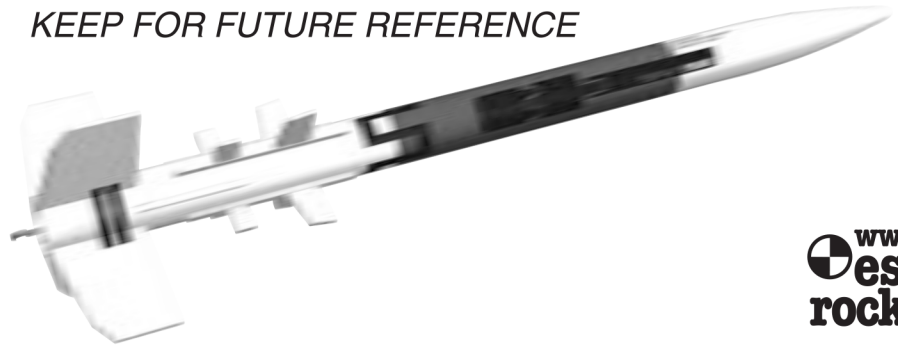
# Photon Probe™

#3026

Estes-Cox Corp.  
1295 H Street, PO Box 227  
Penrose, CO 81240-0227  
Printed in China

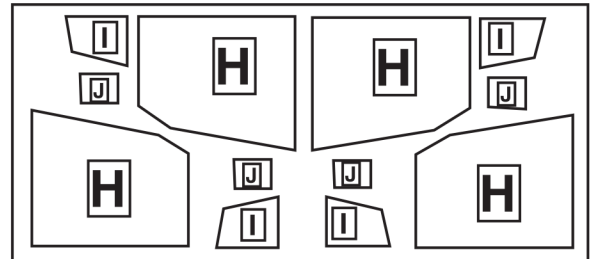
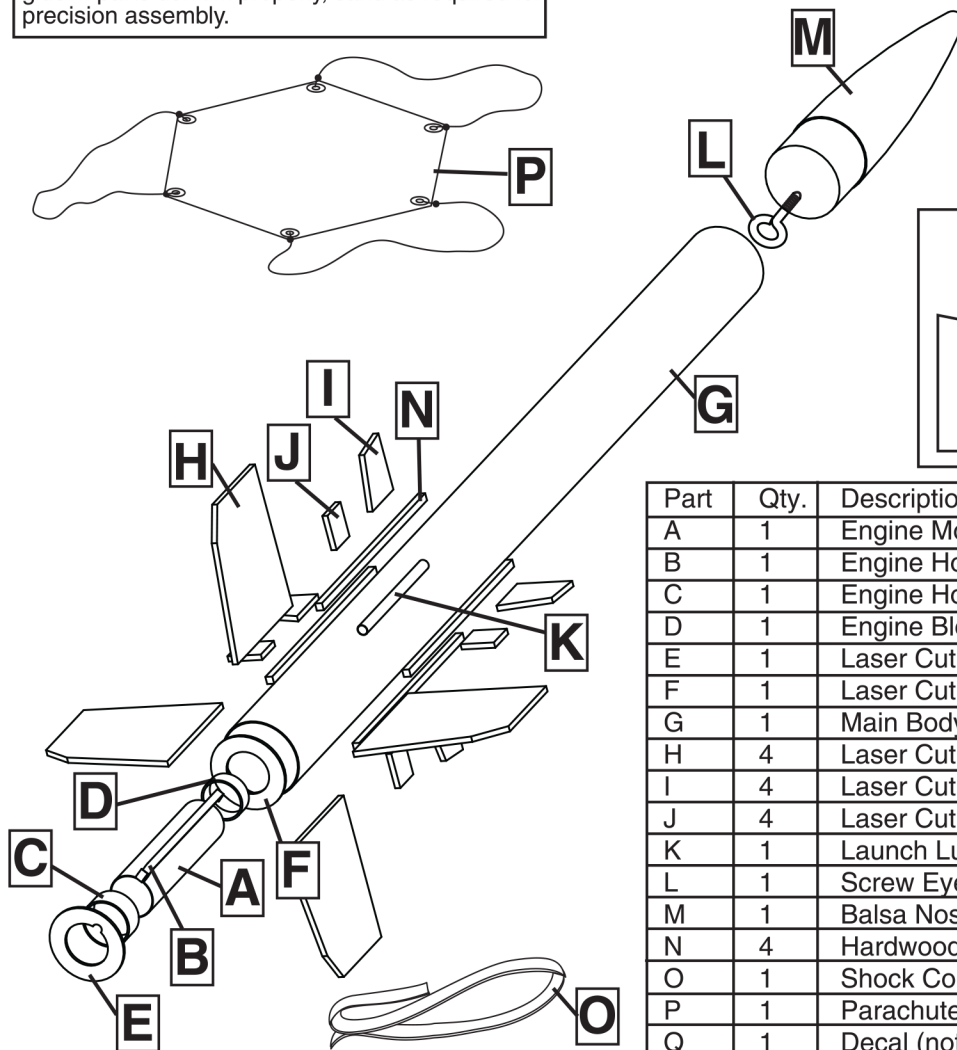
FLYING MODEL ROCKET KIT INSTRUCTIONS

KEEP FOR FUTURE REFERENCE



**ASSEMBLY TIP:** Read all instructions before beginning work on your model. Make sure you have all parts and supplies.

**NOTE:** Test fit all parts together before applying glue. If parts don't fit properly, sand as required for precision assembly.



Part	Qty.	Description	Part Number
A	1	Engine Mount Tube	030326-1
B	1	Engine Hook	035021
C	1	Engine Hook Retainer Ring	030168
D	1	Engine Block	030224
E	1	Laser Cut Centering Ring - notched	030125
F	1	Laser Cut Centering Ring	030125
G	1	Main Body Tube 18" (45 cm)	030382
H	4	Laser Cut Main Fins	065067
I	4	Laser Cut Upper Dorsal Fins	
J	4	Laser Cut Lower Dorsal Fins	
K	1	Launch Lug	038178
L	1	Screw Eye	038251
M	1	Balsa Nose Cone	070276
N	4	Hardwood Strip 4" (102 mm)	032073
O	1	Shock Cord 30" (61 cm)	038369
P	1	Parachute 18" (45 cm)	035816
Q	1	Decal (not shown)	065204

**SUPPLIES** In addition to the parts included in the kit you will also need:



SCISSORS



PENCIL



RULER



FINE SAND PAPER (#320-#400 GRIT)



CARPENTER'S GLUE



MODELING KNIFE



MASKING TAPE



SPRAY PRIMER (WHITE)



SPRAY PAINT CLEAR COAT (OPTIONAL)



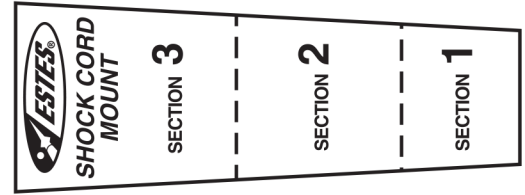
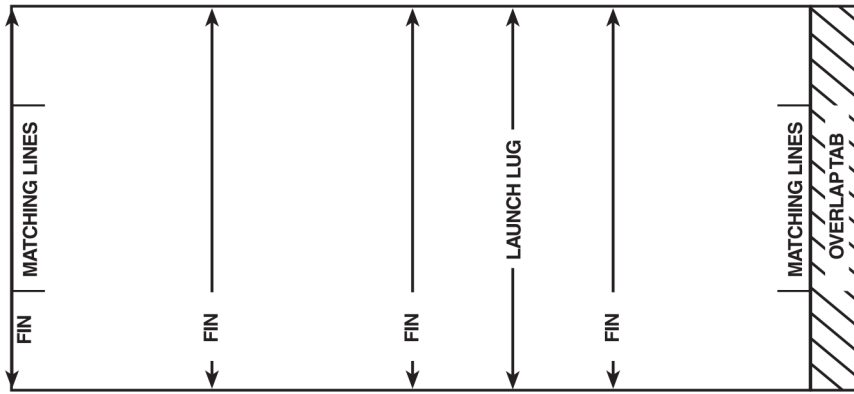
SPRAY PAINT GLOSS WHITE



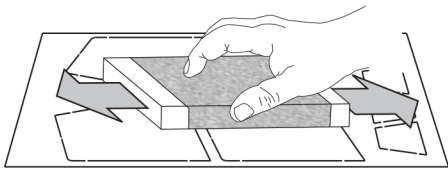
SPRAY PAINT GLOSS PURPLE

# TUBE MARKING GUIDE AND SHOCK CORD MOUNT

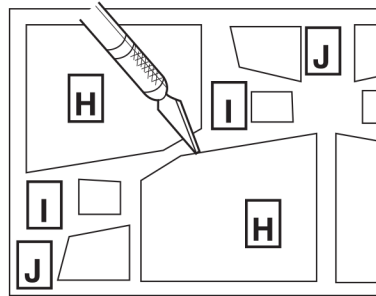
(Make a copy if you want to keep instructions.)



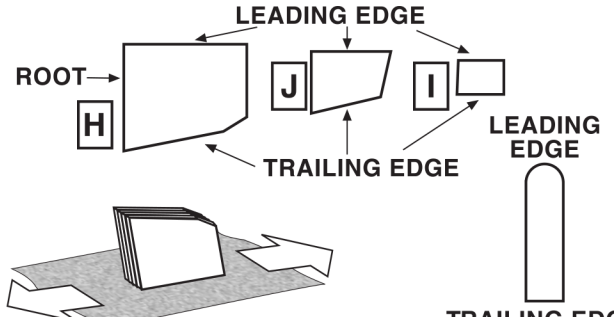
## FIN PREPARATION



1. Sand both sides of balsa sheet with fine sandpaper (#320 or #400 grit).



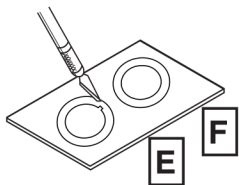
2. Cut H, I, J, from sheet.



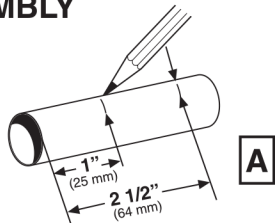
3. Stack like fins together. Sand edges smooth. Do not sand root edge round.

4. Sand leading edge round.

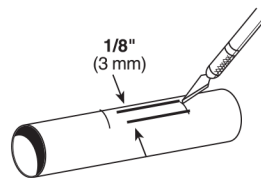
## ENGINE MOUNT ASSEMBLY



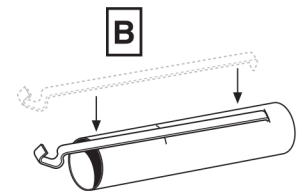
1. Remove E and F.



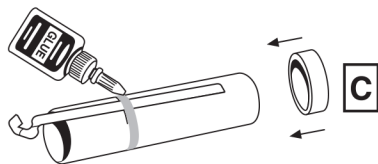
2. Measure and mark A.



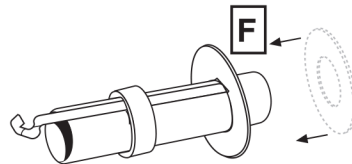
3. Cut small slit at mark.



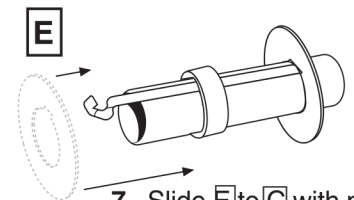
4. Insert B in slit.



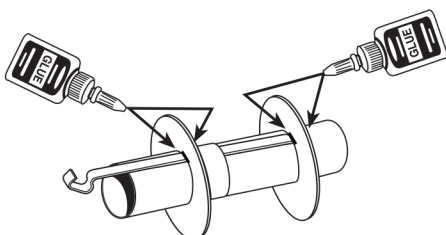
5. Apply ring of glue forward of mark. Slide C to mark.



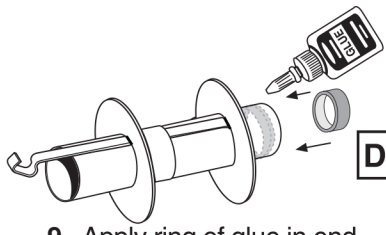
6. Slide F to end of B.



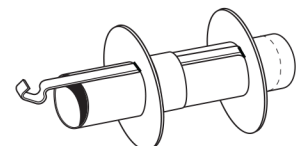
7. Slide E to C with notch centered over B.



8. Apply glue fillets to both sides of E and F. Let dry.

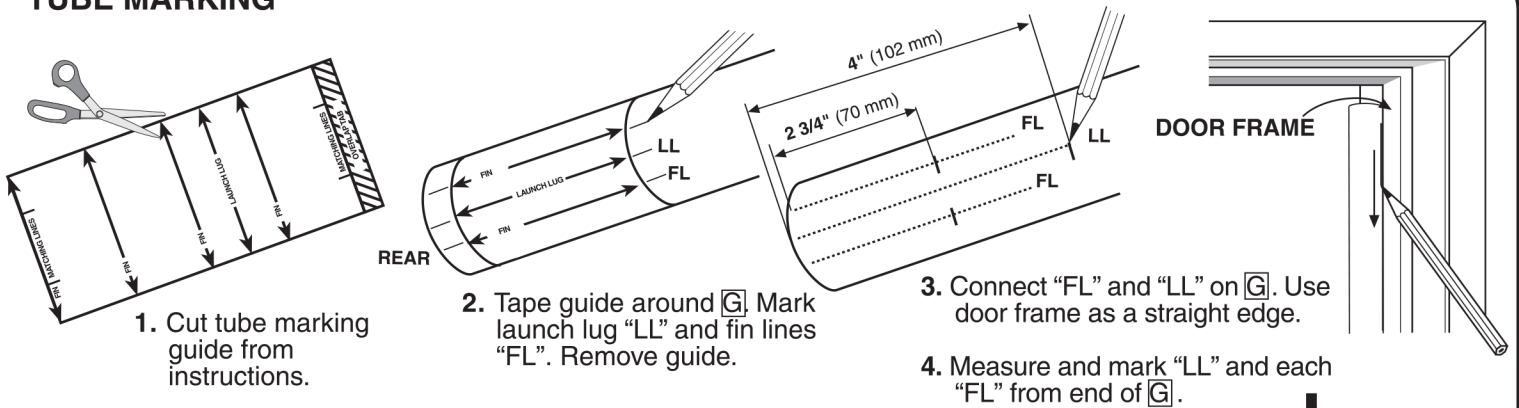


9. Apply ring of glue in end, insert D until it stops. Let dry.



Complete Assembly

## TUBE MARKING



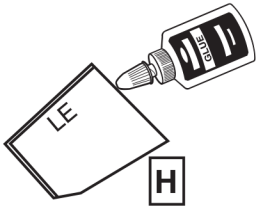
1. Cut tube marking guide from instructions.

2. Tape guide around **G**. Mark launch lug "LL" and fin lines "FL". Remove guide.

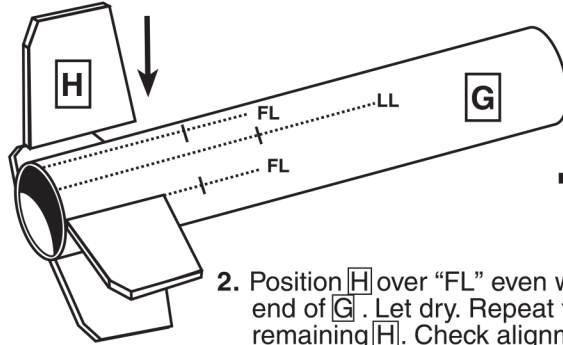
3. Connect "FL" and "LL" on **G**. Use door frame as a straight edge.

4. Measure and mark "LL" and each "FL" from end of **G**.

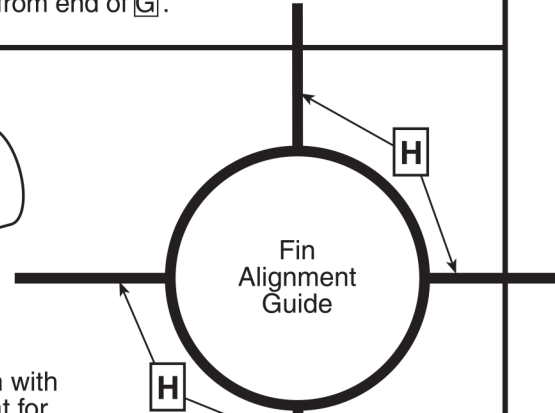
## LOWER FIN ATTACHMENT



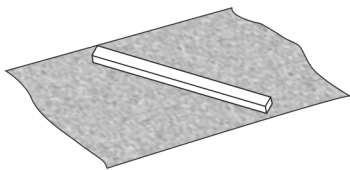
1. Apply glue to root edge of **H**. Let dry 1 minute. Apply 2nd layer of glue.



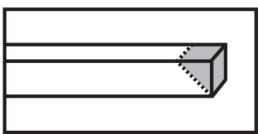
2. Position **H** over "FL" even with end of **G**. Let dry. Repeat for remaining **H**. Check alignment with Fin Alignment Guide.



## HARDWOOD STRIP ATTACHMENT

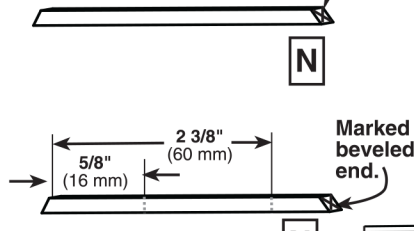


1. Sand sides of **N** smooth.



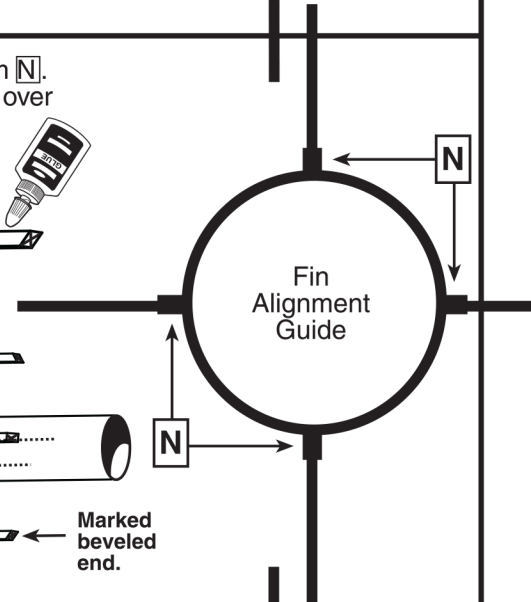
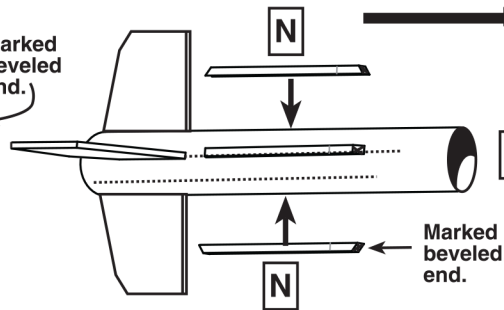
2. Bevel each end of **N** 45 degrees. Sand smooth.

3. Mark one beveled end on each **N**.

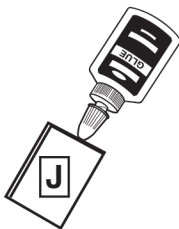


4. Measure and mark each **N**. **Note:** Marked beveled end forward.

5. Apply glue to bottom **N**. Position **N** centered over "FL" forward of mark. Repeat for remaining **N**.

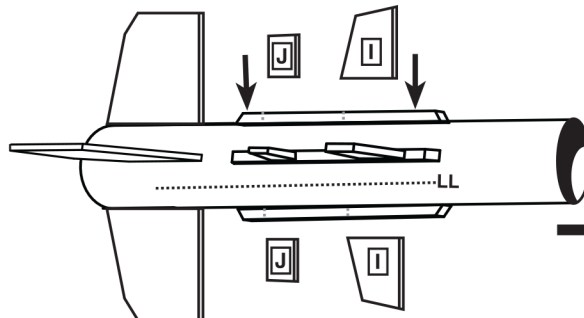


## UPPER FIN ATTACHMENT

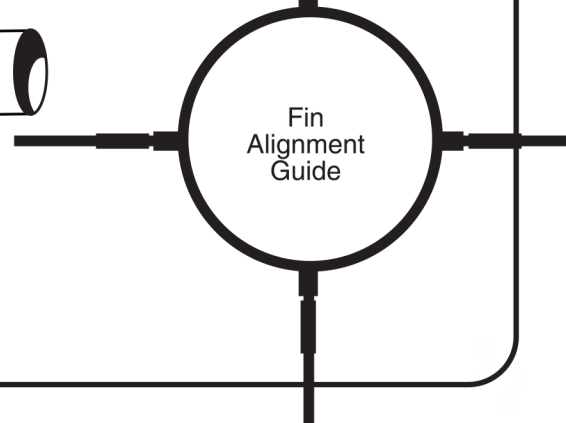


1. Apply glue to root edge of **J**. Let dry 1 minute. Apply 2nd layer of glue. Position over **N** forward of mark. Let dry.

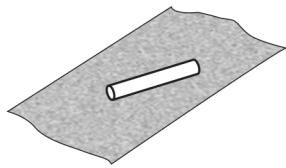
2. Repeat for remaining **J**. Let fins dry. Check alignment using guide.



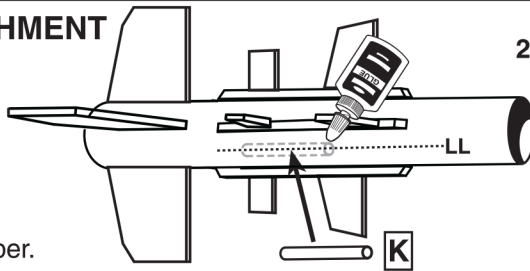
3. Apply glue to root edge of **I**. Let dry 1 minute. Apply 2nd layer of glue. Position over **N** forward of mark. Let dry. Repeat for remaining **I**.



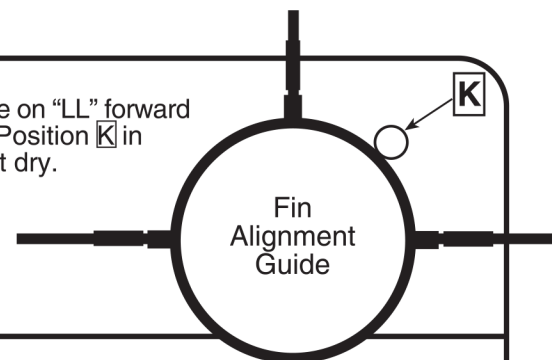
## LAUNCH LUG ATTACHMENT



1. Sand **K** with fine sandpaper.

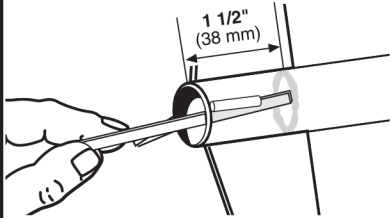


2. Apply glue on "LL" forward of mark. Position **K** in place. Let dry.

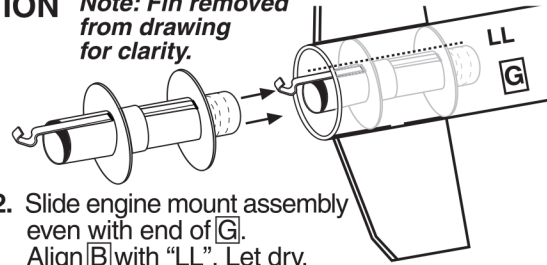


## ENGINE MOUNT INSTALLATION

*Note: Fin removed from drawing for clarity.*

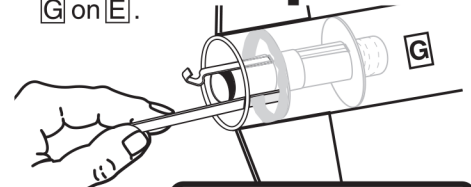


1. Apply ring of glue inside of **G**.

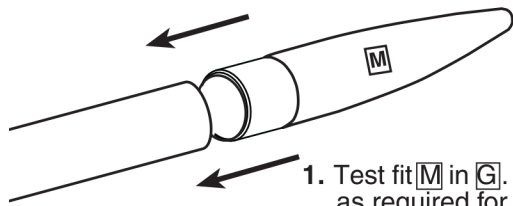


2. Slide engine mount assembly even with end of **G**. Align **B** with "LL". Let dry.

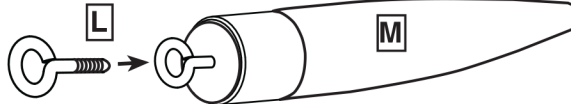
3. Use stick to apply ring of glue inside **G** on **E**.



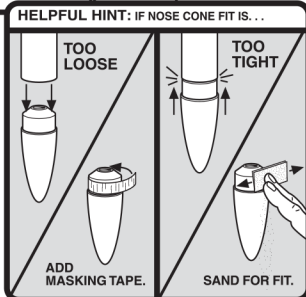
## NOSE CONE ASSEMBLY



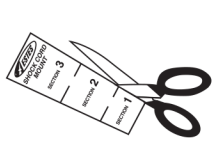
1. Test fit **M** in **G**. Sand as required for fit.



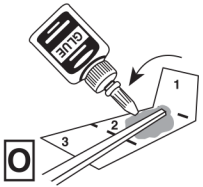
2. Screw **L** centered into **M**.



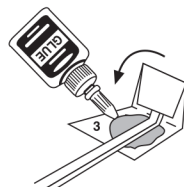
## SHOCK CORD INSTALLATION



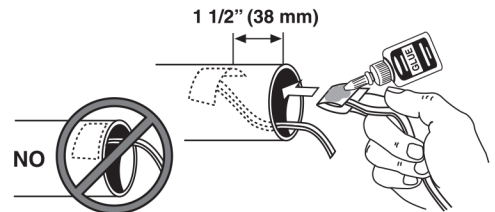
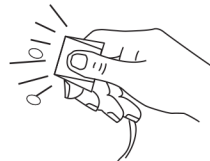
1. Cut shock cord mount from instructions.



2. Apply glue to mount. Place **O** on Section 2. Fold forward.



3. Apply glue and fold forward. Squeeze tight!



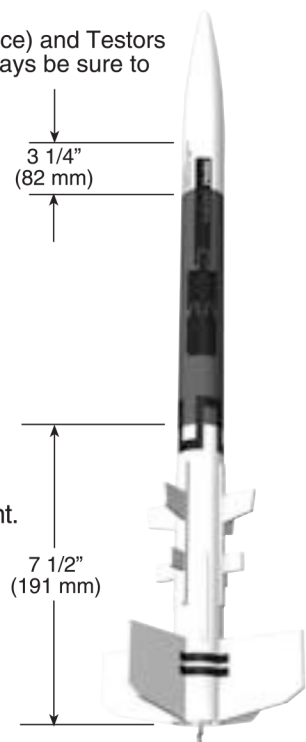
4. Apply glue to shock cord mount and insert in **G**. Hold until glue sets. Let dry.

## ROCKET FINISHING

NOTE: We have found Testors One Coat Lacquer, Testors Model Master spray paints (color of your choice) and Testors Gloss Lacquer (#1961) to be excellent for providing a long lasting and durable finish on your rocket. Always be sure to spray your models outside or in a well ventilated area.

### Steps to a quality finish:

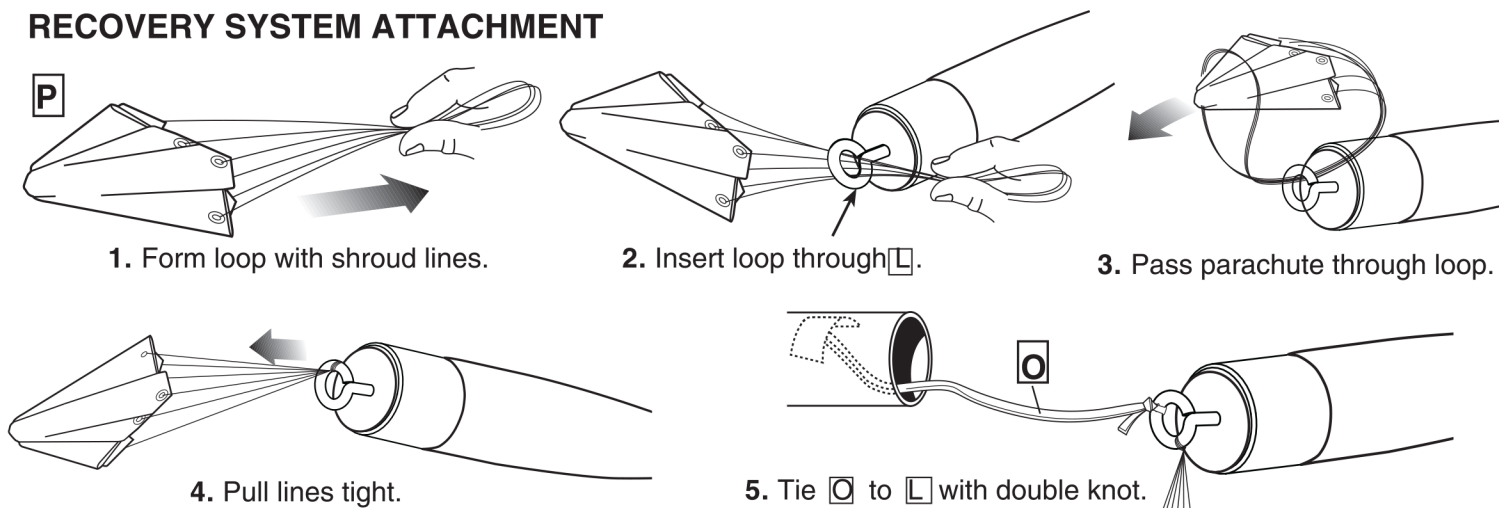
1. Insert shock cord into body tube and hold in place with paper.
2. Lightly sand body tube, fins and nose cone with fine sandpaper (320 or 400 grit).
3. Apply glue fillets to fins and launch lug.
  - a. Allow glue to dry overnight.
4. Use a stick inserted into the motor tube end of the rocket for painting.
5. Hold the nose cone by the screw eye (J) with a clip or pliers for painting.
6. Apply 1-2 light coats of white primer to rocket body and nose cone, lightly sanding with fine sandpaper (#320 or #400 grit) between coats.
  - a. Allow to dry between each coat.
7. Spray paint main rocket and nose cone gloss white (paint separately).
  - a. Allow paint to dry overnight (24 hours is best). Remove tape.
8. Measure 7 1/2" (191 mm) from bottom of rocket and mark with pencil.
9. Apply masking tape and protective cover over the bottom of the rocket to protect the white paint.
10. Measure 3 1/4" (82 mm) from top of rocket and mark with a pencil.
11. Apply masking tape and protective cover over the top of the rocket to protect the white paint, leaving the middle exposed.
12. Spray middle of rocket gloss purple.
  - a. Allow paint to dry overnight (24 hours is best). Remove masking tape.



CONTINUED NEXT PAGE

13. Apply water slide decals where shown.
  - a. Cut the decal to be applied from the decal sheet, trimming close to the decal edge.
  - b. Hold the decal in warm water until decal begins to curl.
  - c. Remove the entire decal, position in place and slide the decal backing material from under the decal and onto the model as close to final position as possible.
  - d. Gently blot out excess water with a clean paper towel.
  - e. Allow decals to set overnight before applying protective clear coat.
14. When decals are dry, spray entire rocket (body and nose cone separately) with a light coat of Testors Gloss Lacquer (#1961). This will provide added protection and shine to your Photon Probe™ rocket!

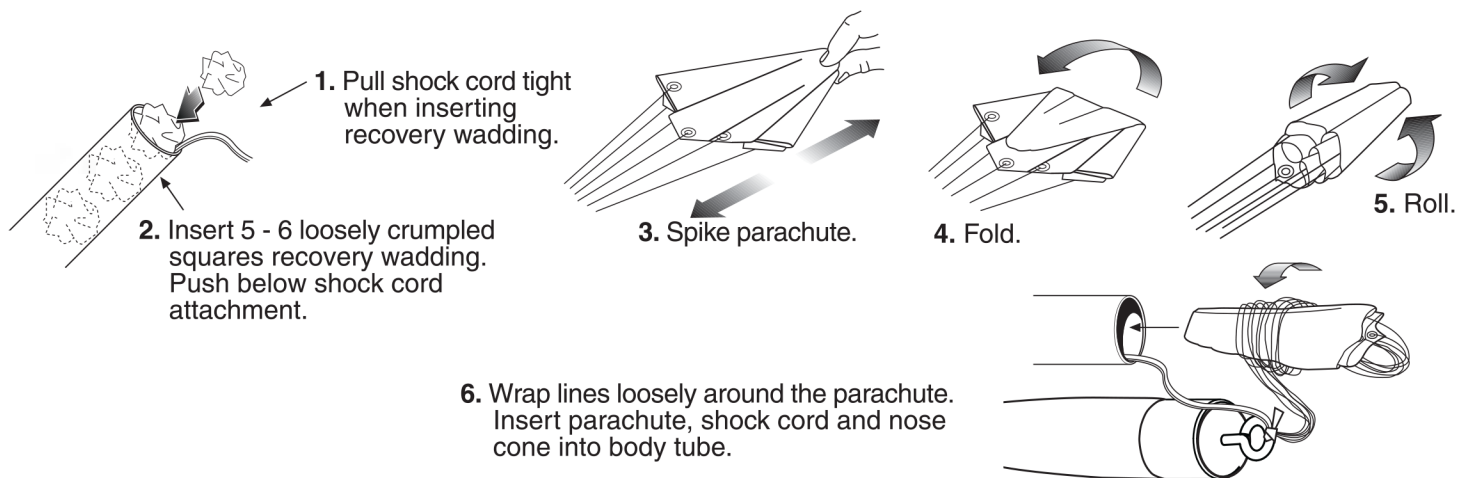
## RECOVERY SYSTEM ATTACHMENT



## PREPARE FLIGHT RECOVERY

NOTE: Only Estes Recovery Wadding (302274) recommended.

NOTE: Recovery wadding and parachute must slide easily into body tube. If too tight, redo.



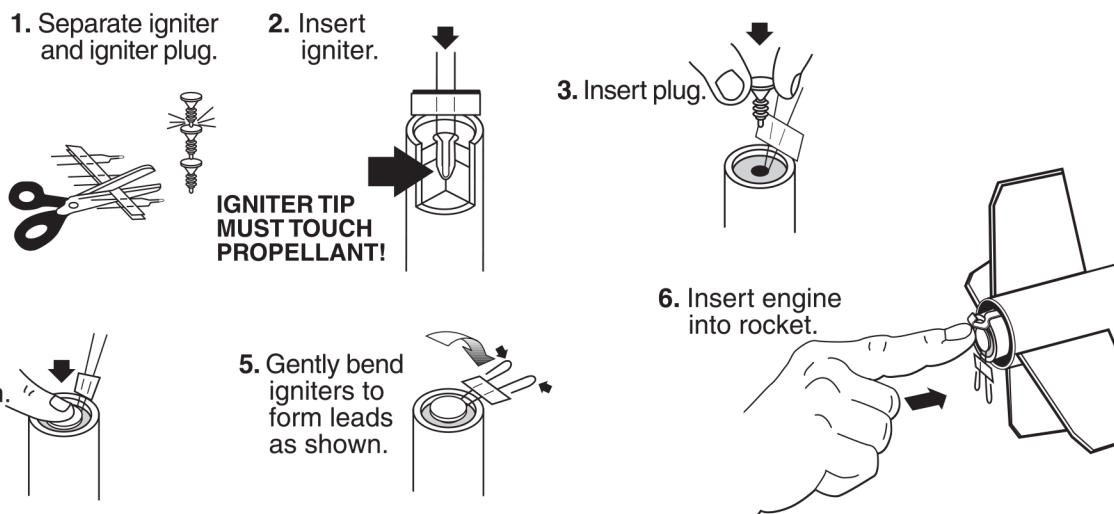
## PREPARE ENGINE

### ⚠ WARNING: FLAMMABLE

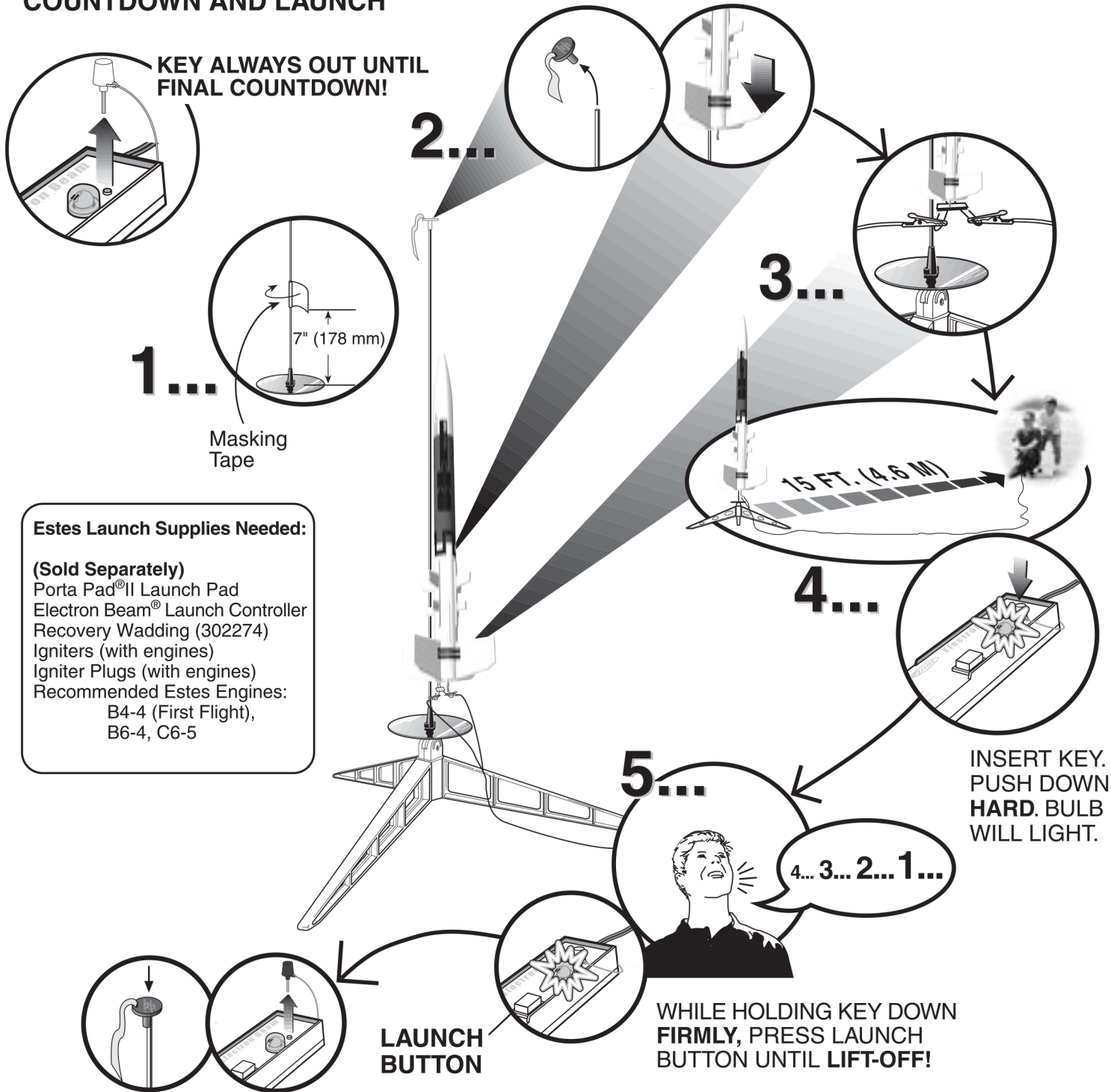
To avoid serious injury, read instructions & NAR Safety Code included with engines.

**PREPARE ENGINE ONLY WHEN YOU ARE OUTSIDE AT THE LAUNCH SITE**

**PREPARING TO LAUNCH!**  
If you do not use your prepared engine, remove the igniter before storing engine.



# COUNTDOWN AND LAUNCH



**KEY ALWAYS OUT UNTIL FINAL COUNTDOWN!**

**2...**

**3...**

**1...**

Masking Tape

7" (178 mm)

15 FT. (4.6 M)

**4...**

**5...**

4... 3... 2... 1...

**INSERT KEY. PUSH DOWN HARD. BULB WILL LIGHT.**

**LAUNCH BUTTON**

**WHILE HOLDING KEY DOWN FIRMLY, PRESS LAUNCH BUTTON UNTIL LIFT-OFF!**

**Estes Launch Supplies Needed:**

- (Sold Separately)
- Porta Pad®II Launch Pad
- Electron Beam® Launch Controller
- Recovery Wadding (302274)
- Igniters (with engines)
- Igniter Plugs (with engines)
- Recommended Estes Engines:
- B4-4 (First Flight),
- B6-4, C6-5

## PRECAUTIONS



NAR Safety Code

This Paper



Can Be Recycled



**NO DRY GRASS OR WEEDS**



## PRE-LAUNCH CHECK

For safety, never launch a damaged rocket. Check the rocket's body, nose cone and fins. Also, check the engine mount, recovery system and launch lug. Repair any damage before launching the rocket.

## FLYING YOUR ROCKET

Choose a large field (500 ft. [152 m] square) free of dry weeds and brown grass. The larger the launch area, the better your chance of recovering your rocket. Football fields and playgrounds are great. Launch only with little or no wind and good visibility.

Always follow the enclosed National Association of Rocketry (NAR) SAFETY CODE.

## MISFIRES

TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET! Disconnect the igniter clips and remove the engine. Take the plug and igniter out of the engine. If the igniter has burned, it worked but did not ignite the engine because it was not touching the propellant inside the engine. Put a new igniter all the way inside the engine without bending it. Push the plug in place. Repeat the steps under Countdown and Launch.

300  
DPI

3/32"

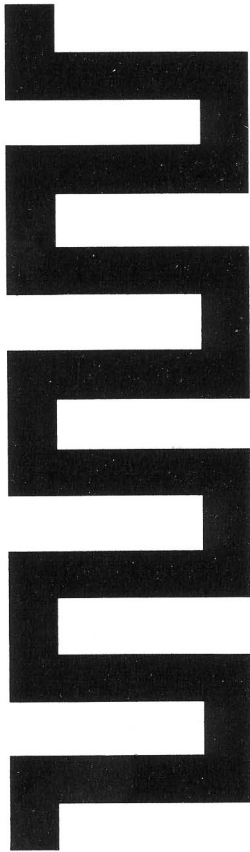
No.0303SR

THE  
A

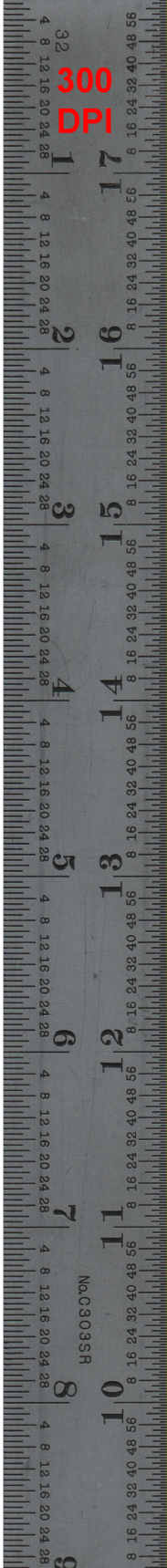
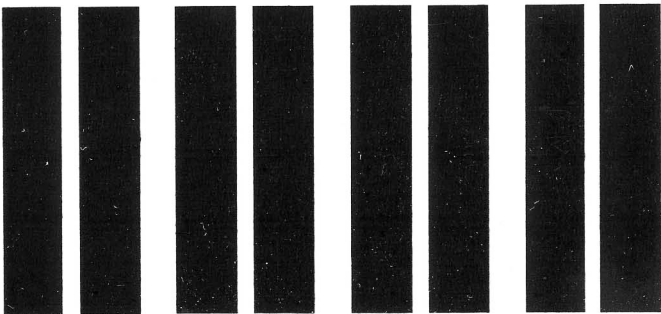
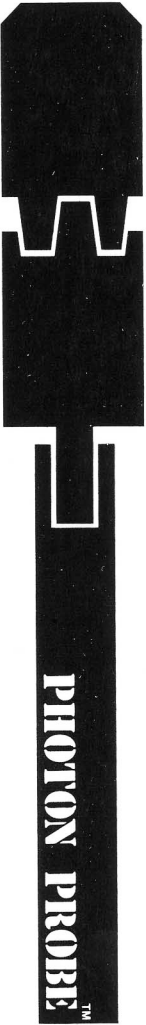
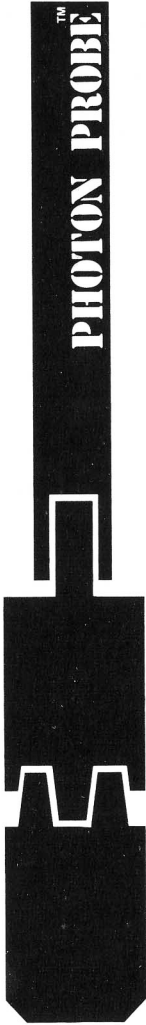


29301000001-19  
CENTER SECTION ASM-N-7A  
SERIAL NO. AS - 3462

29301000001-19  
CENTER SECTION ASM-N-7A  
SERIAL NO. AS - 3462

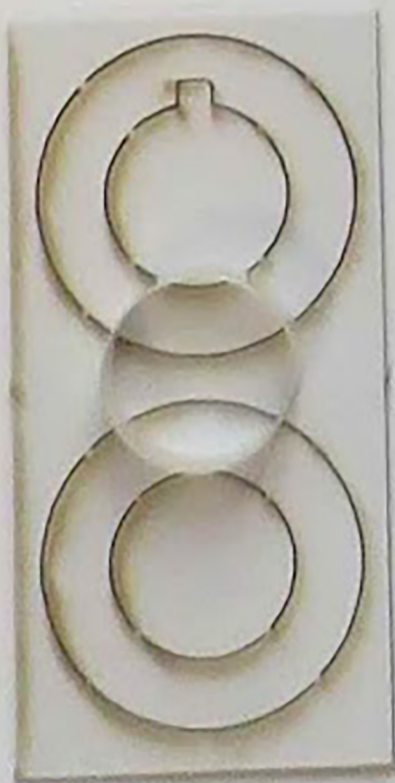
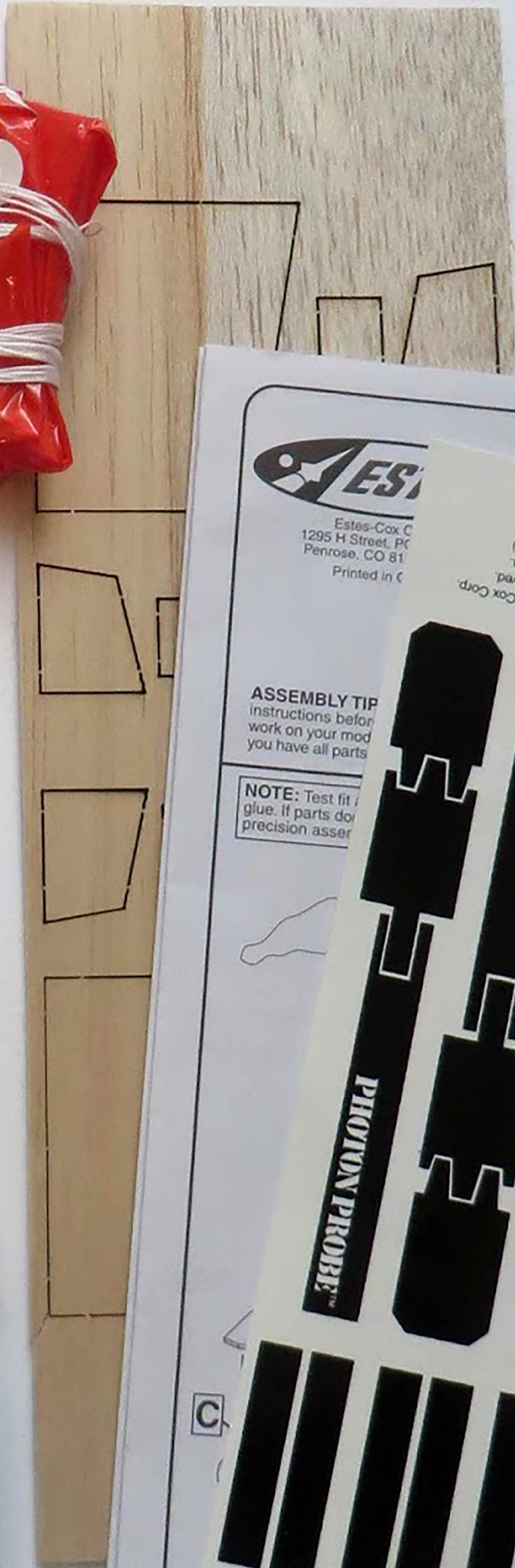


ESTES INDUSTRIES PN 037483



## PARTS LIST KIT NO. 3026 - Photon Probe

Quantity	Description	Type	Number	Detail1	Detail2	Detail3	Detail4	Comment
1	PAPER BODY TUBE	BT-20J	30326-1	2.75" long	0.710" ID	0.736" OD	0.013" wall	Blue
1	ENGINE HOLDER	EH-2	35021	2.8" long	.100" wide	.025" thick	18/24mm	Thumb Saver
1	MYLAR RETAINER RING	HR-20	30168	0.3" long	0.74" ID	0.76" OD	0.01" wall	BT-20
1	ENGINE BLOCK	EB-20A	30224	.708" OD	.65" ID	.25" thick	0.058" wall	Black
1	PAPER ADAPTER	RA-2055	30125	0.738" ID	1.27" OD	.05" thick	Notched	
1	PAPER ADAPTER	RA-2055	30125	0.738" ID	1.27" OD	.05" thick	Not Notched	
1	PAPER BODY TUBE	BT-55	30382	18" long	1.283" ID	1.325" OD	0.021" wall	Glassine
4	Laser Cut Main Fins	*BF-2043	65067	4" wide	9" long	3/32" thick		Scan
4	Laser Cut Upper Dorsal Fins							
4	Laser Cut Lower Dorsal Fins							
1	LAUNCH LUG	LL-2B	38178	5/32" ID	1/8" rod	2-3/8" long		Mylar
1	Screw Eye (Large)	SE-1	38251	1" long				
1	NOSE CONE Balsa or Plastic	BNC-55AO	70276	5.0" long	1.325" dia.	.75" shoulder	Alt PNC-55AO	3DP zip
4	Hardwood Strip	N/A	32073	1/8" square	4" long			Basswood
1	Shock Cord	SC-2(30)	38369	1/4" wide	30" long			Elastic
1	Parachute	PK-18	35816	18" dia.	18" x 6 Shrouds		Blu/Wht	Preassembled
1	Decal	KD-2043	65204	4" wide	9" long	Blk	Waterslide	Scan
*	BALSA FIN STOCK	*BFS-30(4x9)	N/A	4" wide	9" long	3/32" thick	0.09375	



**ESTES**  
 Estes-Cox Corp.  
 1295 H Street, PO  
 Penrose, CO 81  
 Printed in China

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**PHOTON PROBE™**

**ASSEMBLY TIP**  
 Instructions before  
 work on your model  
 you have all parts

**NOTE:** Test fit  
 glue. If parts do  
 precision assem

**ESTES** **ESTES**

**PHOTON PROBE™**

**PHOTON PROBE™**

**SUPPLIES**

SCISSORS	PENCIL	RULER	FINE SAND PAPER (600-800 GRIT)	CARPENTER'S GLUE



# Photon Probe

FLYING MODEL ROCKET KIT

Skill Level 2

## Classic Series

Based on an original Estes Design.

- Flies on Standard Engines!
- Laser Cut Balsa Fins!

FLIES UP TO **575** FEET (175 m)

**23 INCHES** (58.4 cm) TALL!

3026  
47776-03026

SEE BACK OF PACKAGE FOR DETAILS.

**Photon Probe**  
ROCKET POCKET CARD

Skill Level 2  
Length: 23 in. (58.4 cm)  
Diameter: 1.35 in. (34 mm)  
Estimated Weight: 2.45 oz (69 g)  
Recovery: 18 in. (46 cm)  
Parachute: Parachute  
Altitude: 575 ft. (175 m)

Engines: B6-4 (Fly High), B6-4 (CE-6)

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1 MODEL KIT 1 MODÈLE RÉDUIT



# ESTES FLYING MODEL ROCKET

## ESTES MODÈLE DE FUSÉE VOLANT

Plastic bags can be dangerous. To avoid danger of suffocation, keep this bag away from babies and children.  
Les sacs de plastique peuvent être dangereux. Pour éviter le danger de suffocation, ne laissez pas ce sac à la portée des bébés et des enfants.

Allergy Information: Product may contain latex.  
Information d'Allergie: Le produit peut contenir du latex.

This model kit requires assembly. Requires white or yellow glue, white glue sticks, and launch system - NOT INCLUDED.  
Cet ensemble nécessite montage. Colle et peinture, et des autres fournitures de lancement - NON COMPRIS.

USE ONLY WITH ESTES PRODUCTS. Caution: Use of this Estes product with any other brand may void the Estes warranty.  
CET ENSEMBLE DOIT ÊTRE UTILISÉ AVEC DES PRODUITS ESTES. Attention: L'utilisation de ce produit Estes avec un produit d'une autre marque entraînera d'éventuels dommages et peut annuler la garantie Estes.



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Fabrique en Guangdong, Chine

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