





EstesRockets.com

STARLIGHT™

9992

AGES
10+

Skill Level

INTERMEDIATE

MODEL ROCKET INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

READ ALL INSTRUCTIONS. Make sure you have all parts and supplies. Test fit all parts before applying glue. Refer to your glue manufacturer's dry times during build.

SUPPLIES



SCISSORS



YELLOW GLUE



RULER



PENCIL



HOBBY KNIFE



FINE SANDPAPER



SANDING BLOCK



WHITE PRIMER



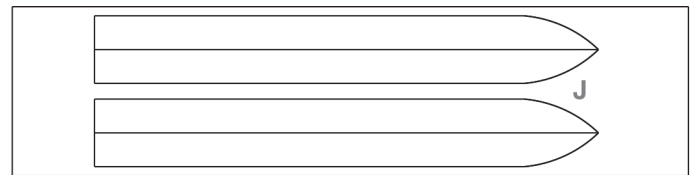
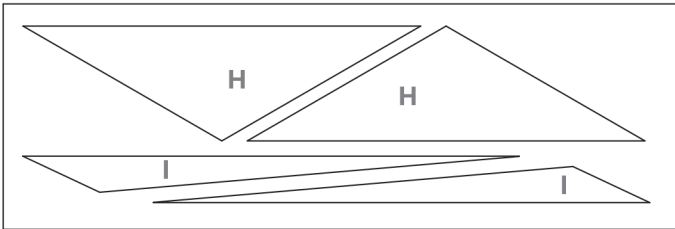
MASKING TAPE



SILVER PAINT

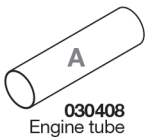


TRANSPARENT BLUE PAINT

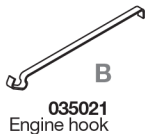


090051-9992B
Laser cut balsa

090051-9992A x2
Laser cut balsa



030408
Engine tube



035021
Engine hook



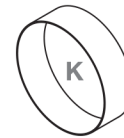
038251
Eye screw



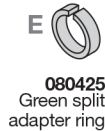
088099
Metal nose weight



070255
Balsa nose cone



031809
Large outer ring x2



080425
Green split adapter ring



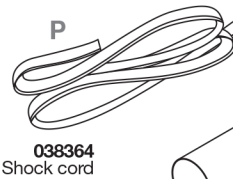
030164-2
Green adapter ring



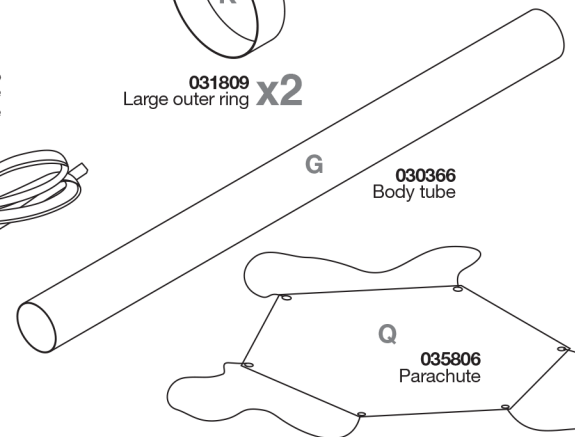
030168
Mylar retainer ring



038176
Launch lug x2



038364
Shock cord



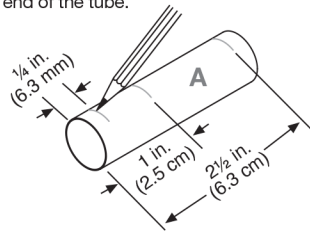
030366
Body tube

035806
Parachute

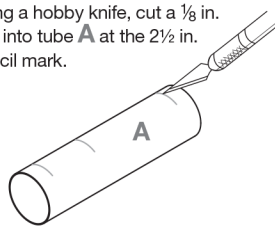
030162-2
Engine block C

ASSEMBLE ENGINE MOUNT

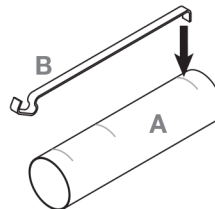
1. Mark engine tube **A** with a pencil at ¼ in., 1 in., and 2½ in. from the end of the tube.



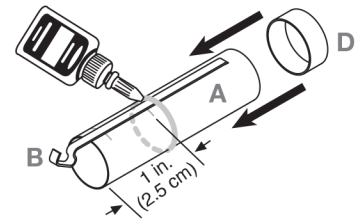
2. Using a hobby knife, cut a ⅛ in. slot into tube **A** at the 2½ in. pencil mark.



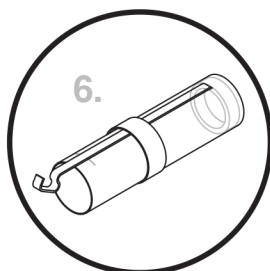
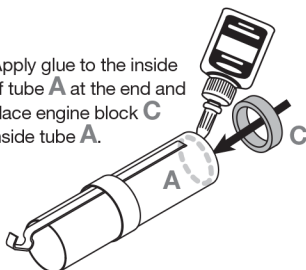
3. Insert engine hook **B** into the slot cut into tube **A**.



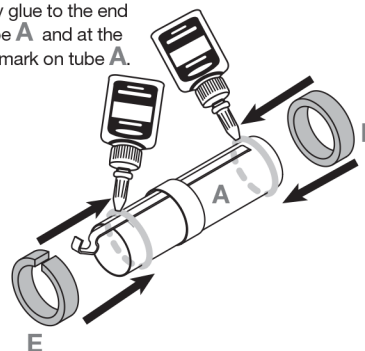
4. Apply glue just past the 1 in. pencil mark on tube **A** and slide mylar retainer ring **D** over engine hook **B** and align with the 1 in. mark.



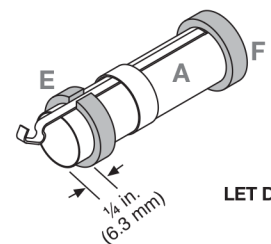
5. Apply glue to the inside of tube **A** at the end and place engine block **C** inside tube **A**.



7. Apply glue to the end of tube **A** and at the ¼ in. mark on tube **A**.



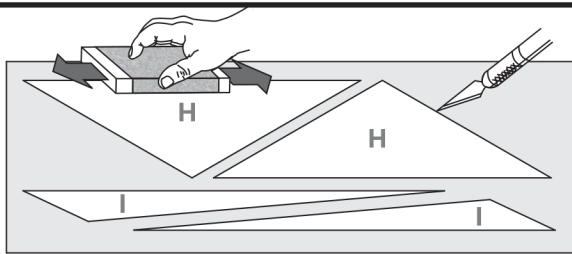
8. Place green split adapter ring **E** over the end of tube **A** around the engine hook and align with ¼ in. mark. Place green adapter ring **F** over the end of tube **A**. Align ends.



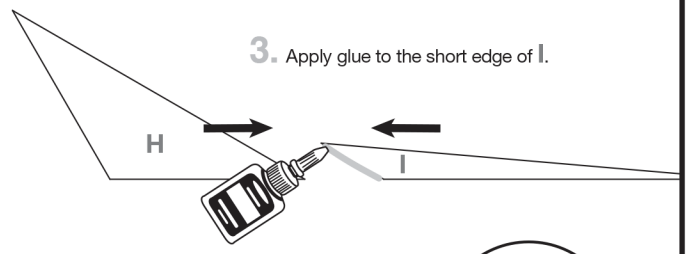
LET DRY

FIN PREPARATION

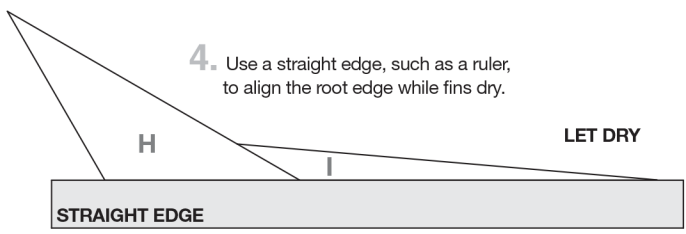
1. Lightly sand both sides of balsa sheet.
2. Using a hobby knife, carefully remove **H** and **I**.



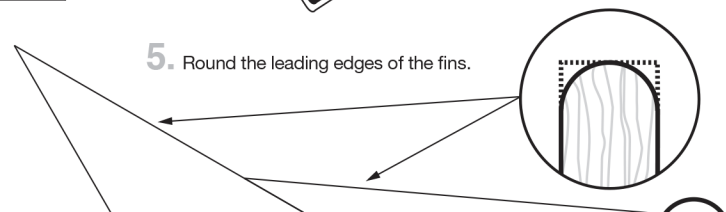
3. Apply glue to the short edge of **I**.



4. Use a straight edge, such as a ruler, to align the root edge while fins dry.



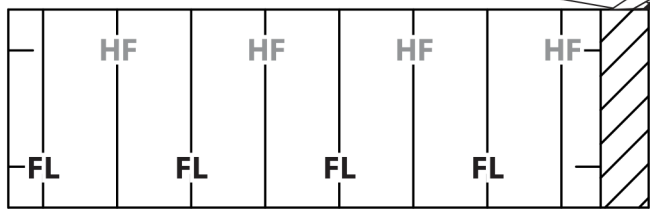
5. Round the leading edges of the fins.



NOTE:
Repeat steps 1-5 for all four fins.

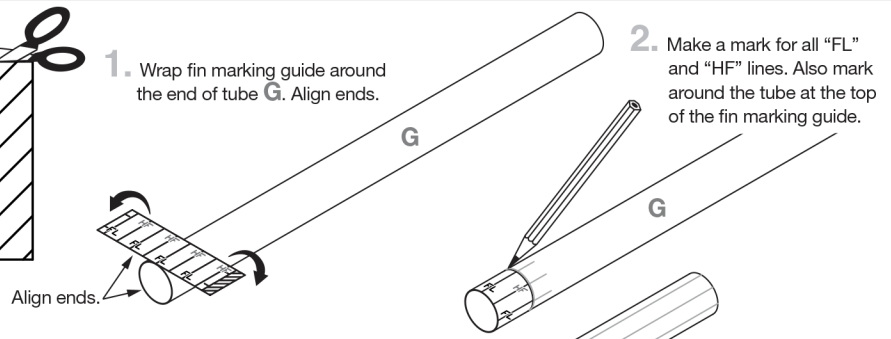
x4

MARK BODY TUBE FOR FINS



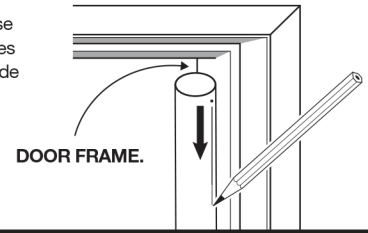
FIN MARKING GUIDE

1. Wrap fin marking guide around the end of tube **G**. Align ends.

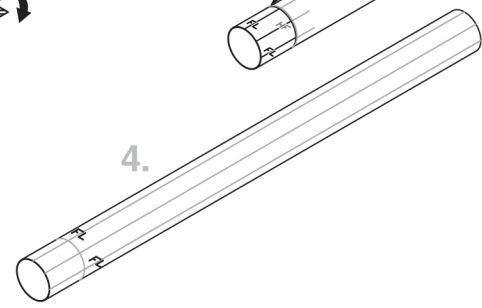


2. Make a mark for all "FL" and "HF" lines. Also mark around the tube at the top of the fin marking guide.

3. Remove guide. Use door frame or Estes Tube Marking Guide to extend all lines.

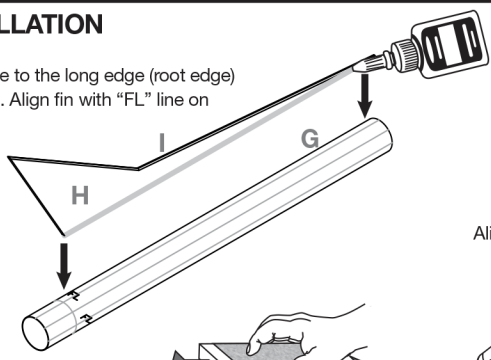


- 4.

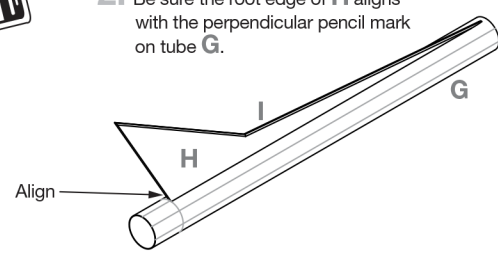


FIN INSTALLATION

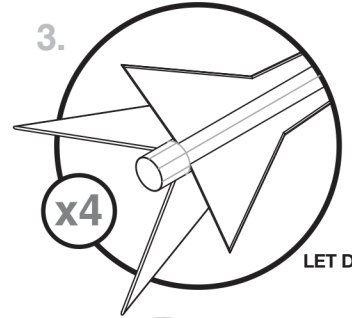
1. Apply glue to the long edge (root edge) of **H/I** fin. Align fin with "FL" line on tube **G**.



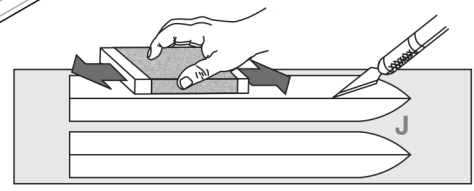
2. Be sure the root edge of **H** aligns with the perpendicular pencil mark on tube **G**.



- 3.



4. Lightly sand both sides of balsa sheet.

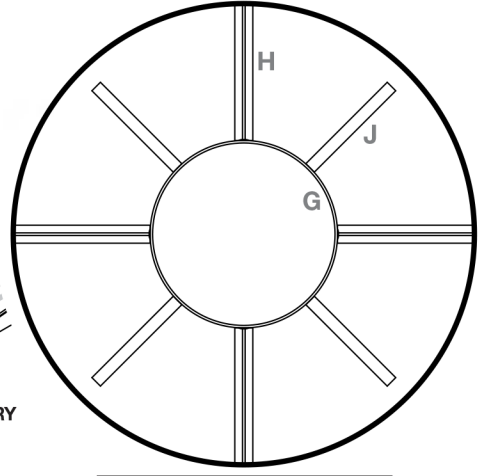
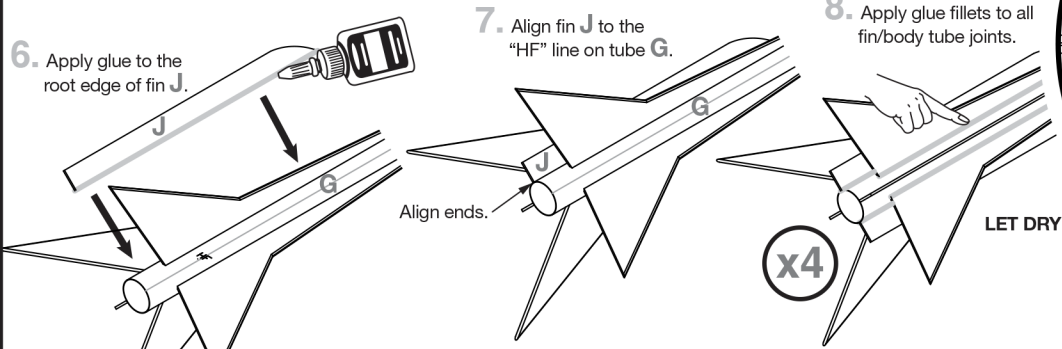


5. Using a hobby knife, carefully remove all **J** pieces.

6. Apply glue to the root edge of fin **J**.

7. Align fin **J** to the "HF" line on tube **G**.

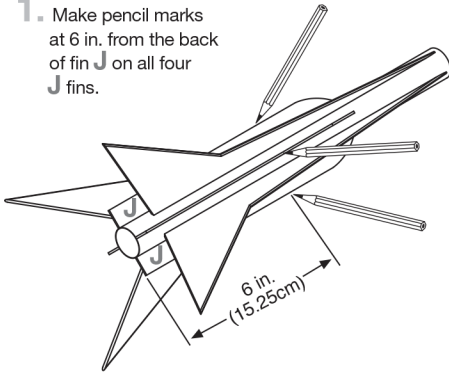
8. Apply glue fillets to all fin/body tube joints.



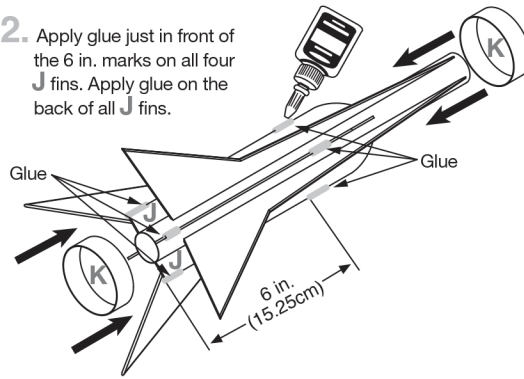
NOTE:
Use this template for fin placement.

ATTACH LARGE OUTER RINGS AND LAUNCH LUGS

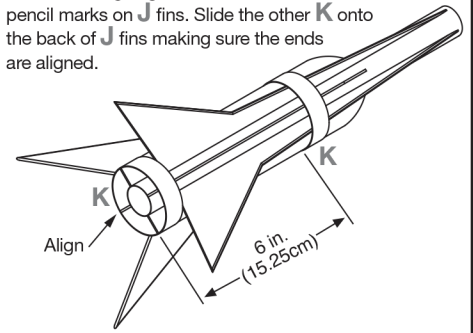
1. Make pencil marks at 6 in. from the back of fin **J** on all four **J** fins.



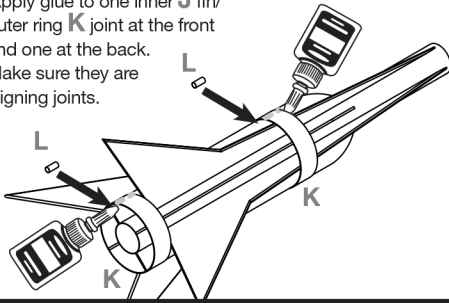
2. Apply glue just in front of the 6 in. marks on all four **J** fins. Apply glue on the back of all **J** fins.



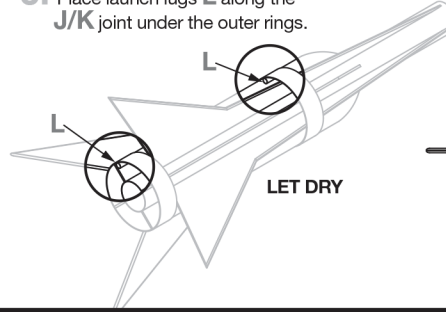
3. Slide large outer ring **K** over the front of the the rocket, aligning the back of **K** with the 6 in. pencil marks on **J** fins. Slide the other **K** onto the back of **J** fins making sure the ends are aligned.



4. Apply glue to one inner **J** fin/outer ring **K** joint at the front and one at the back. Make sure they are aligning joints.

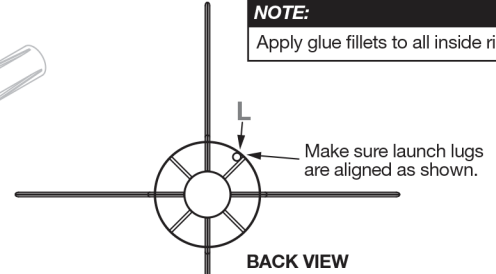


5. Place launch lugs **L** along the **J/K** joint under the outer rings.



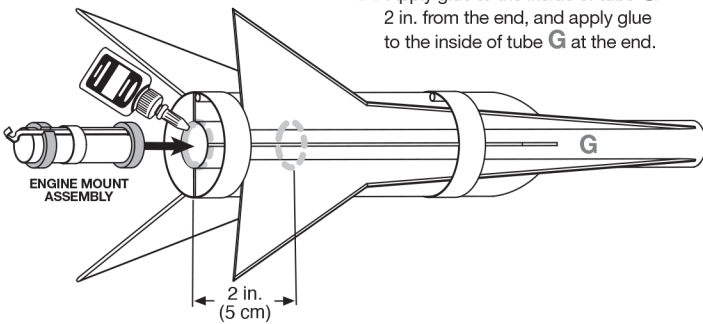
NOTE:

Apply glue fillets to all inside ring/fin joints.

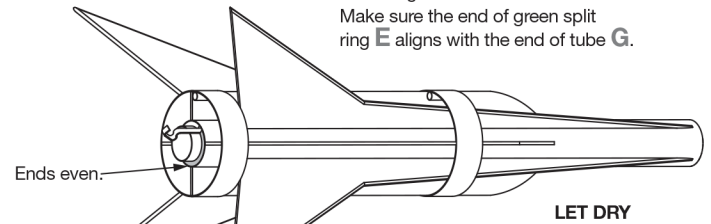


INSTALL ENGINE MOUNT

1. Apply glue to the inside of tube **G** 2 in. from the end, and apply glue to the inside of tube **G** at the end.

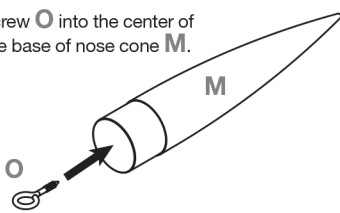


2. Slide engine mount into tube **G**. Make sure the end of green split ring **E** aligns with the end of tube **G**.



PREPARE NOSE CONE

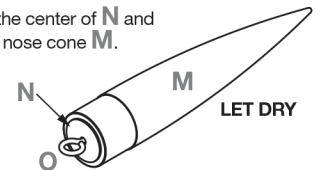
1. Screw **O** into the center of the base of nose cone **M**.



2. Remove screw and apply glue to hole.



3. Place **O** through the center of **N** and screw it back into nose cone **M**.



INSTALL RECOVERY SYSTEM

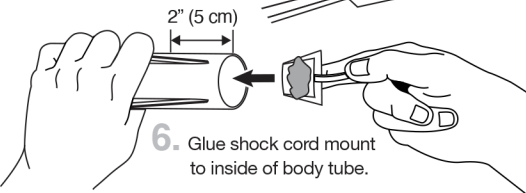
1. Cut out the shock cord mount template.

2. Apply glue to the shock cord mount template.

3. Fold the shock cord mount template.

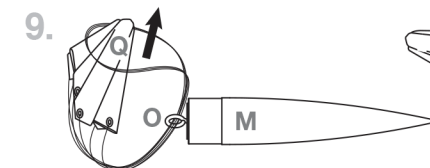
4. Hold until set.

5. Apply glue to shock cord mount.

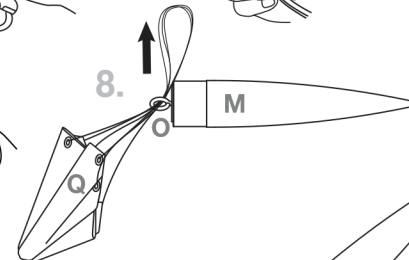


6. Glue shock cord mount to inside of body tube.

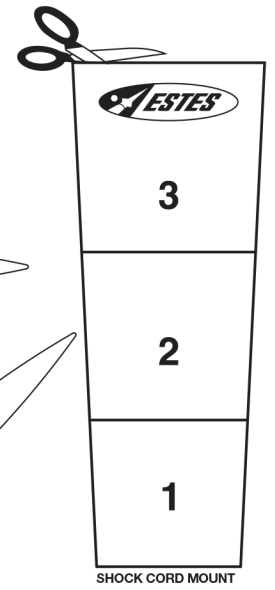
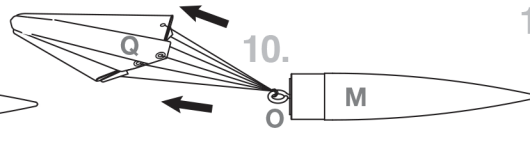
7. Hold until set.



8. Tie the shock cord P in a double knot onto the eye of screw O.



9. Tie the shock cord P in a double knot onto the eye of screw O.



PAINTING

1. Spray rocket with white primer, let dry, and sand. Repeat until rocket is smooth.
2. Spray entire rocket with white paint and let dry. (Follow paint manufacturers recommended drying time)
3. Spray entire rocket with two coats of silver/metallic paint and let dry.
4. Mask the upper and lower rings and remove nose cone.
5. Apply two light coats of transparent blue and let dry.
6. Carefully remove masking tape on rings, replace nose cone.
7. OPTIONAL: Apply protective clear coat.

BLUE TRANSPARENT PAINT

SILVER PAINT

SILVER PAINT

SILVER PAINT

CAUTION:

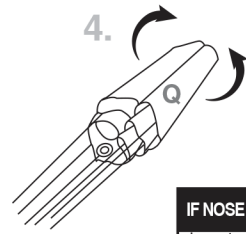
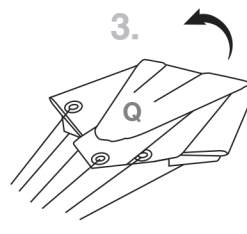
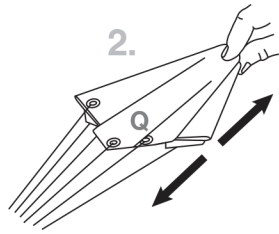
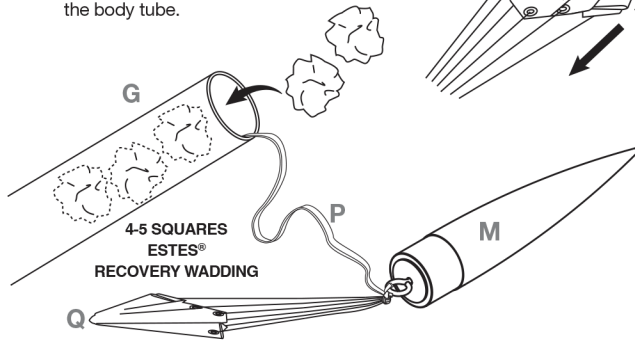
See manufacturer's warnings and instructions before using spray finishing products.

NOTE:

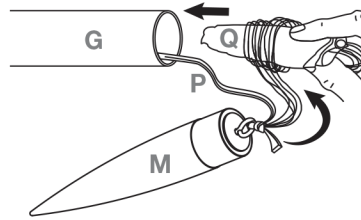
Please refer to packaging for suggested paint scheme and/or decal placement.

PREPARE FLIGHT RECOVERY

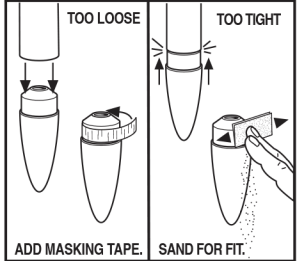
1. Push recovery wadding down towards end of the body tube.



5. Wrap parachute shroud lines loosely around the parachute Q and insert into body tube G.



IF NOSE CONE FIT IS...

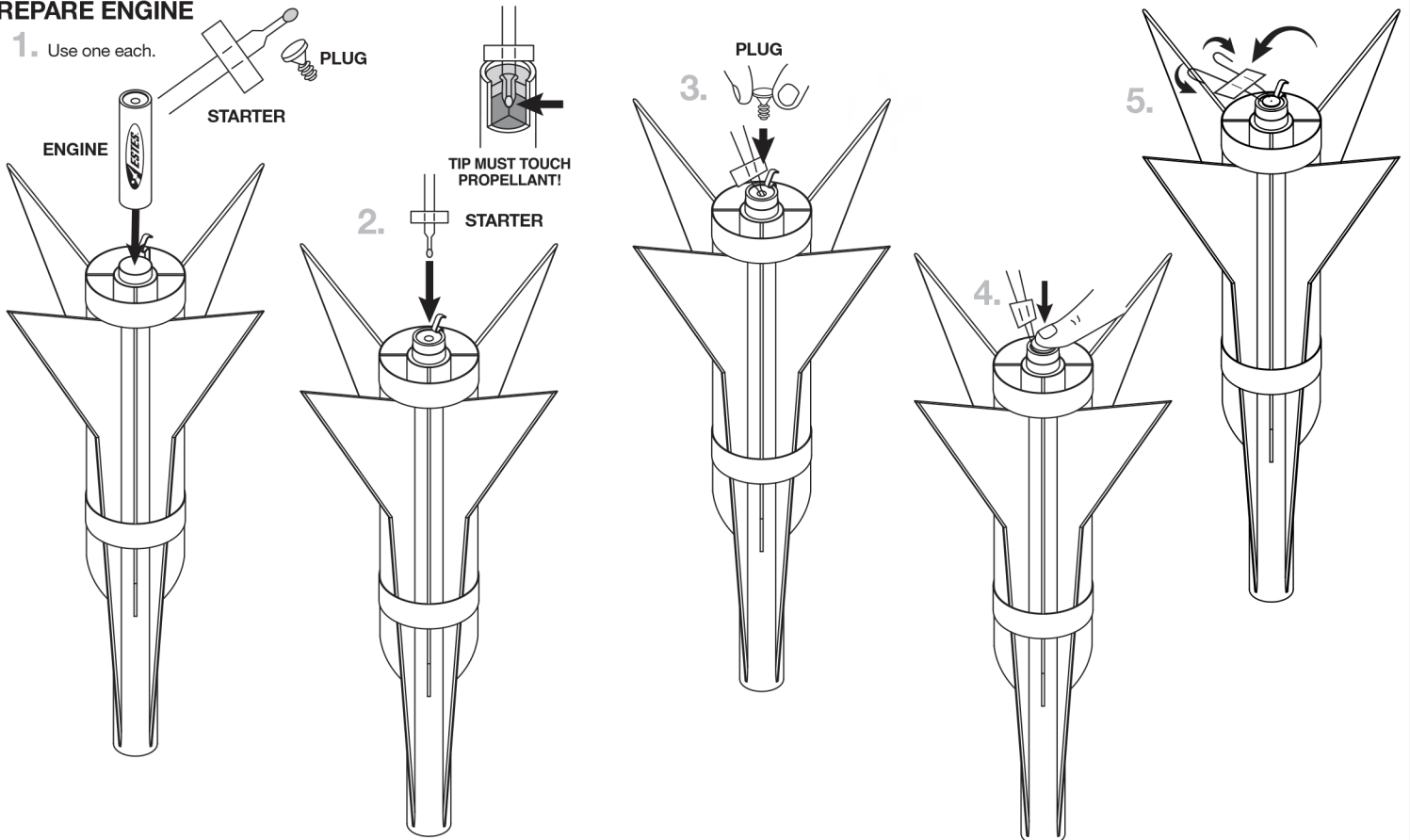


NOTE:

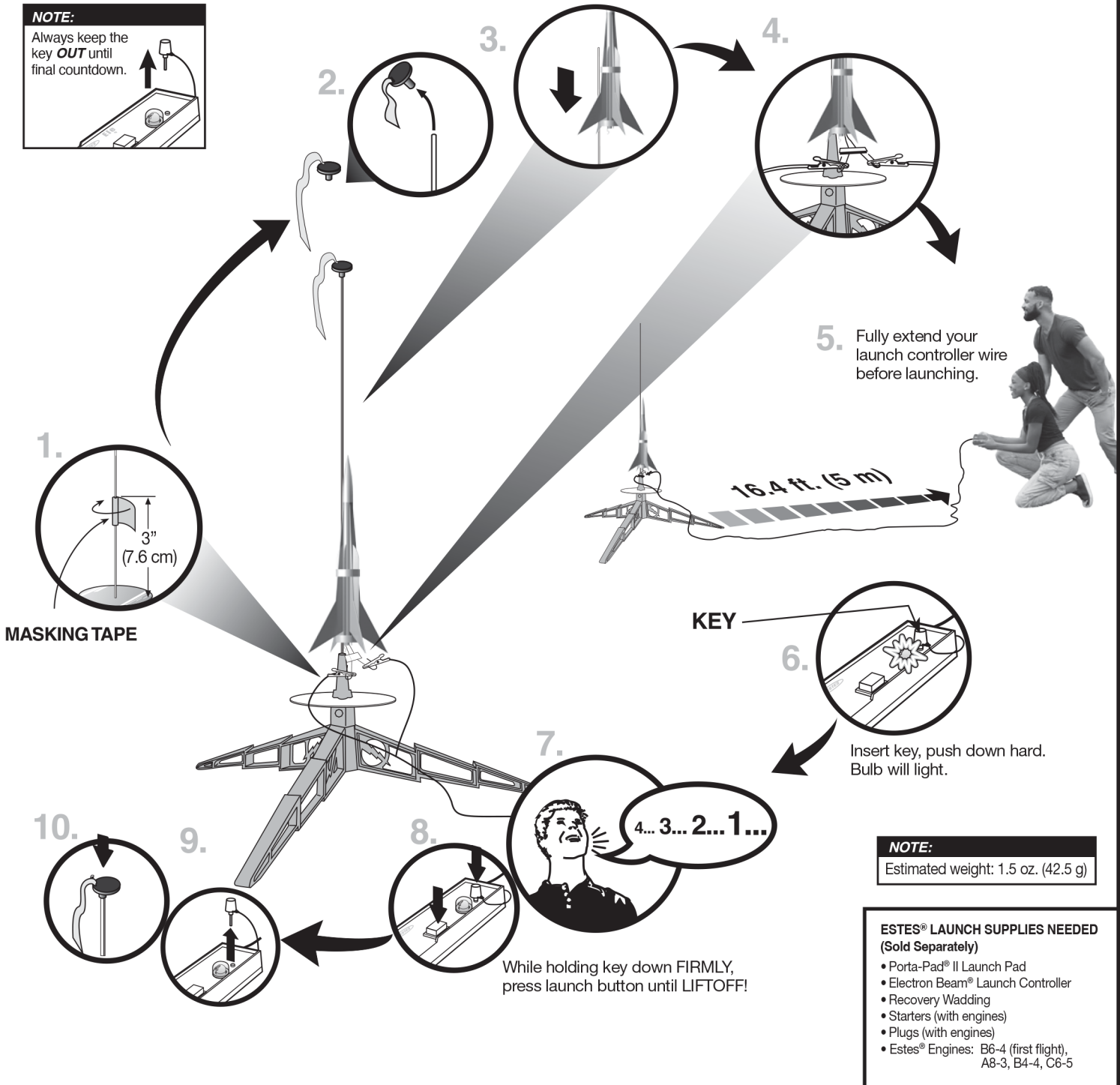
Recovery wadding and parachute must slide easily into body tube. If too tight, redo.

PREPARE ENGINE

1. Use one each.



NOTE:
Always keep the key **OUT** until final countdown.



PRECAUTIONS



NAR SAFETY CODE



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(s). 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. Launch only with little or no wind and good visibility. Always follow the National Association of Rocketry (NAR) SAFETY CODE (enclosed).

MISFIRES TAKE THE KEY OUT OF THE CONTROLLER. WAIT ONE MINUTE BEFORE GOING NEAR THE ROCKET. Disconnect the micro-clips and remove the engine. Take the plug and starter out of the engine. A burned starter means the starter tip was not touching engine propellant. Install a new starter; be sure the tip is touching propellant inside the engine. Push the plug in place. Repeat steps under Countdown and Launch.



PLASTIC NOSE CONE PREPARATION (OPTIONAL)

NOTE:

If you prefer to use the OPTIONAL plastic nose cone, use this preparation step.

SUPPLIES

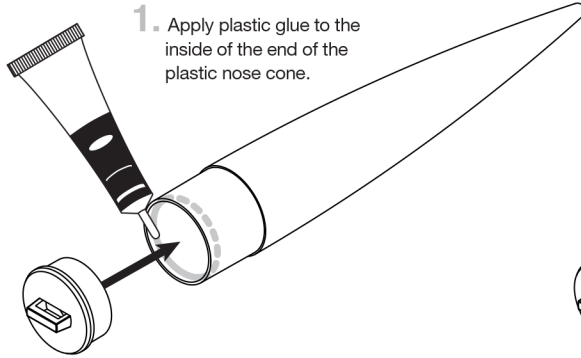
072703
Plastic
nose cone



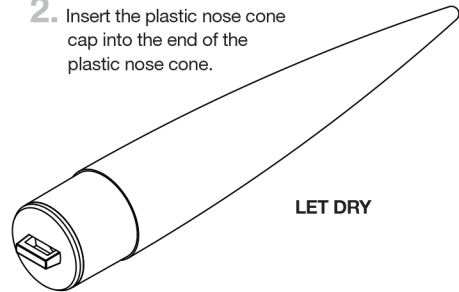
072654
Plastic nose
cone cap



1. Apply plastic glue to the inside of the end of the plastic nose cone.



2. Insert the plastic nose cone cap into the end of the plastic nose cone.

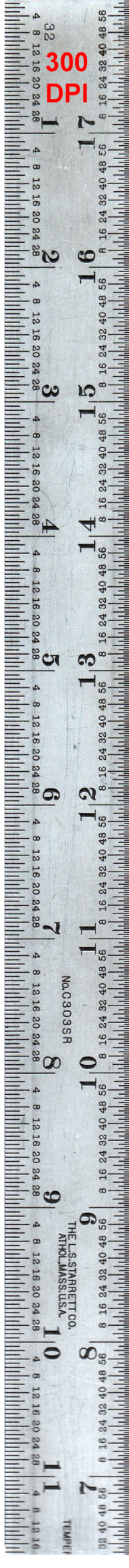


LET DRY

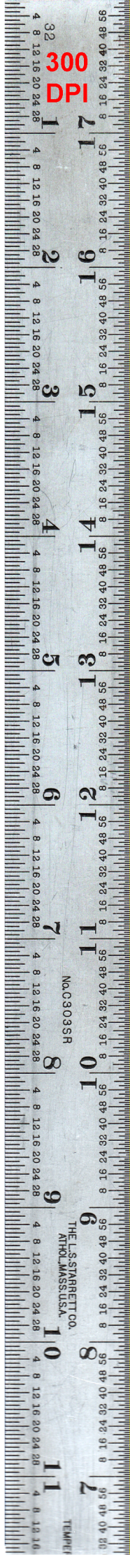


PLASTIC GLUE

3/32"
Make 2



1/16"





STARLIGHT

— FLYING MODEL ROCKET KIT —

SOARS UP TO

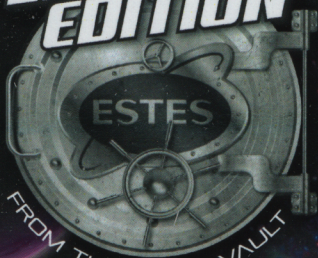
650ft
198m

On a C6-5 Engine

Other engines you can use:

A8-3, B4-4, B6-4

LIMITED
EDITION



FROM THE ESTES VAULT

Based on
the original design
by Bill See!

Length: 18 in.
45.7 cm

Diameter: 0.98 in.
25 mm

Recovery: Parachute

EstesRockets.com

EST9992



PN 090002-9992 (10-23)
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QTY: 1

BEGINNER

INTERMEDIATE

ADVANCED

EXPERT

MASTER

