0688

EstesRockets.com

STAR WEAVER™



AGES 10+

Skill Level
ADVANCED

MODEL ROCKET INSTRUCTIONS

KEEP FOR FUTURE REFERENCE

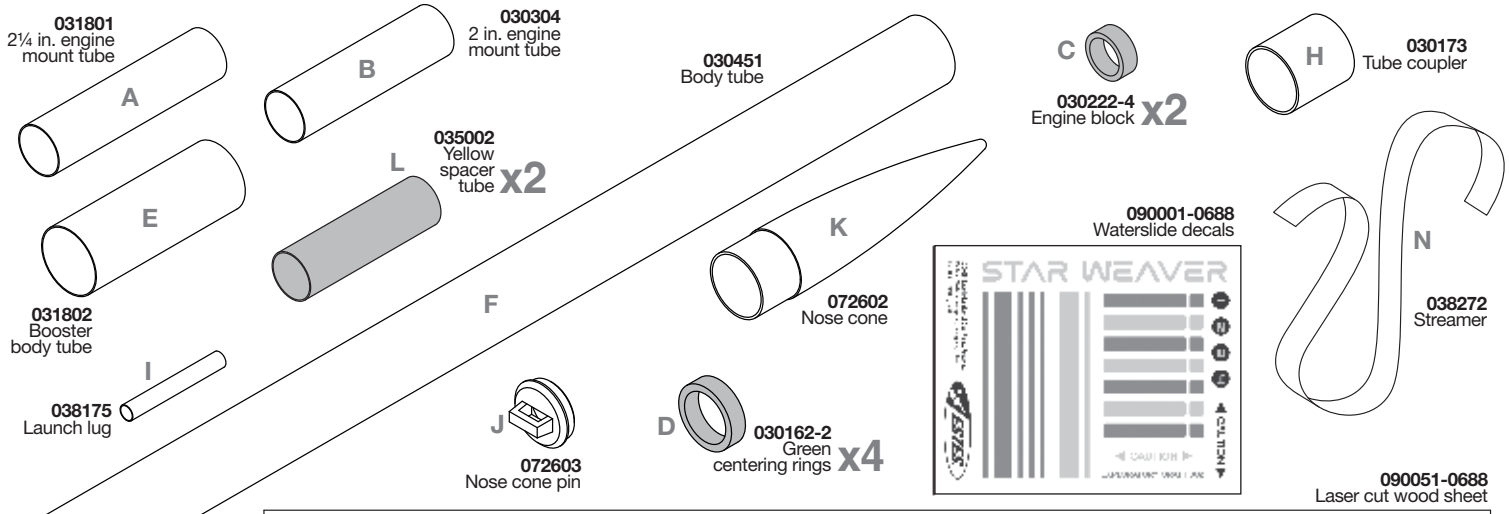
IMPORTANT: Please record date found on decal and keep for future reference. _____

⚠ CAUTION: *May not apply to all kits. For safe handling of plastic cement, epoxy, spray adhesive, CA glue, CA accelerator, paint/finishing materials, see manufacturer's warnings and follow instructions for use. To avoid injury, use extreme caution when using hobby knife, scissors, drills, and any cutting tools.*

SUPPLIES

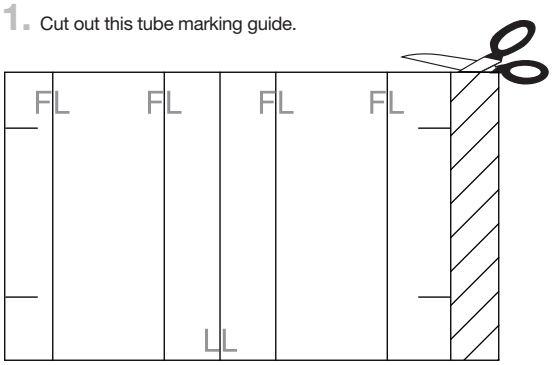


PENCIL | FINE SANDPAPER | SANDING BLOCK | RULER | HOBBY KNIFE | SCISSORS | MASKING TAPE | CLEAR TAPE | YELLOW GLUE | PLASTIC CEMENT | WHITE PRIMER | PAINT (LISTED ON PG 6) | CLEAR COAT (OPTIONAL)

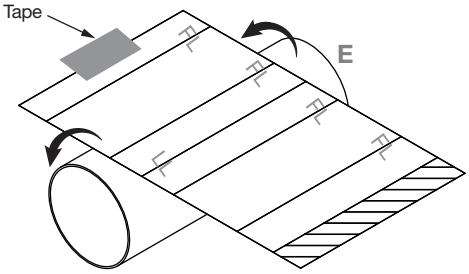


MARK BODY TUBES

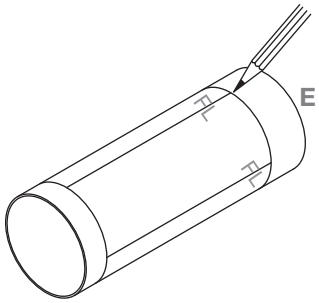
1. Cut out this tube marking guide.



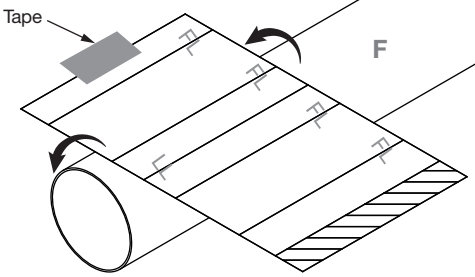
2. Wrap tube marking guide around tube E. Use clear tape to secure in place.



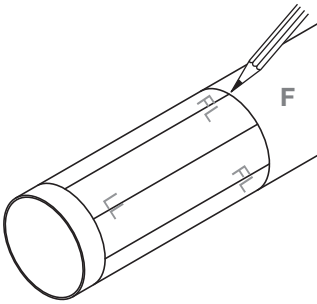
3. Mark all lines from marking guide onto tube E. Label each line with either "FL" or "LL". Remove marking guide.



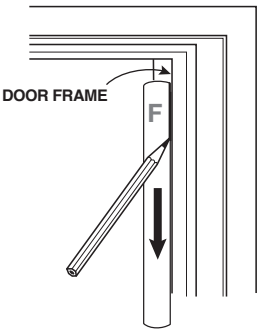
4. Wrap tube marking guide around tube F. Use clear tape to secure in place.



5. Mark all lines from marking guide onto tube F. Label each line with either "FL" or "LL". Remove marking guide.

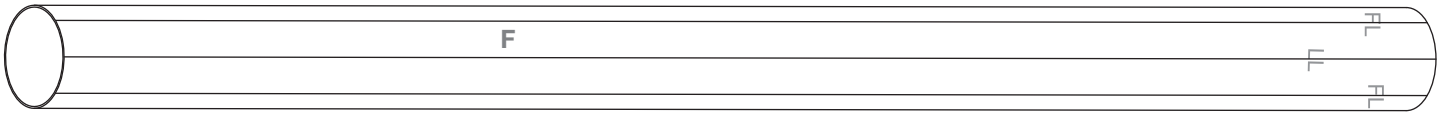


6. Use a door frame to extend all lines up the entire length of both tubes E & F.



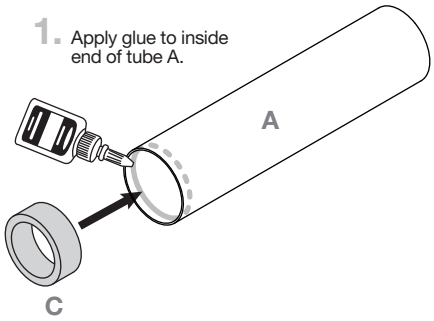
7.



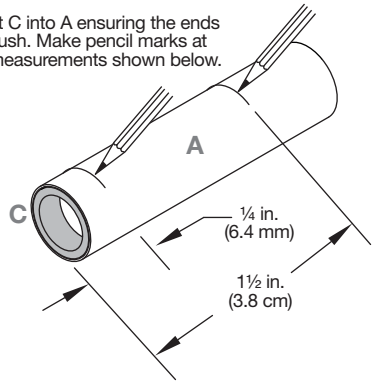


ASSEMBLE BOOSTER ENGINE MOUNT

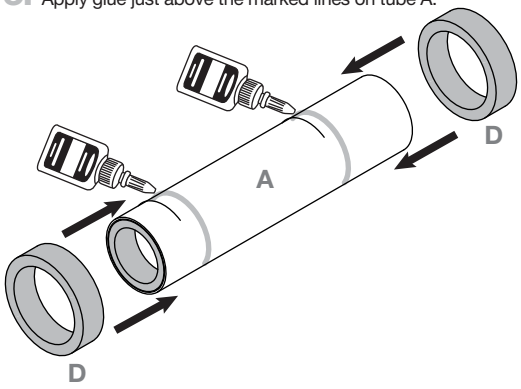
1. Apply glue to inside end of tube A.



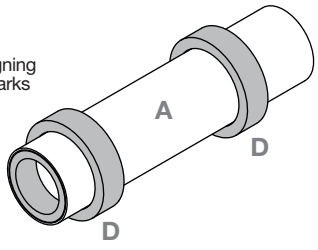
2. Insert C into A ensuring the ends are flush. Make pencil marks at the measurements shown below.

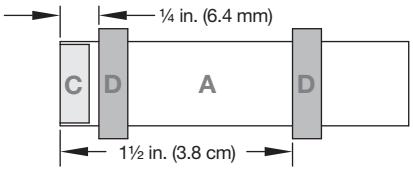


3. Apply glue just above the marked lines on tube A.



4. Slide D rings over A, aligning the front of rings with marks on tube A.

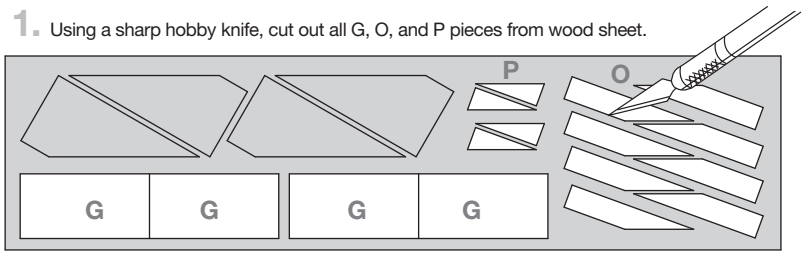




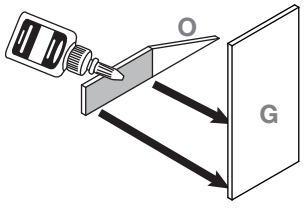
LET DRY

ASSEMBLE BOOSTER STAGE

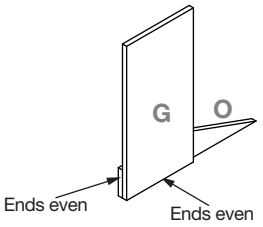
1. Using a sharp hobby knife, cut out all G, O, and P pieces from wood sheet.



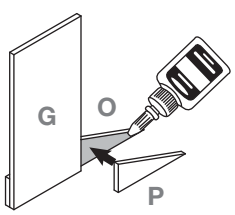
2. Apply glue to O as shown.



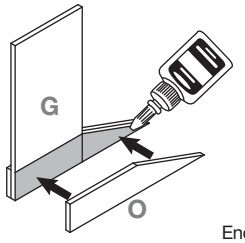
3. Press O and G together until set.



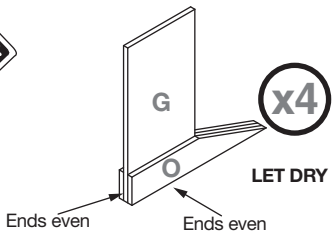
4. Apply glue to O as shown. Place P as shown.



5. Apply glue to G and P as shown. Place O as shown.



6. Hold until set. Repeat for all four booster fins.

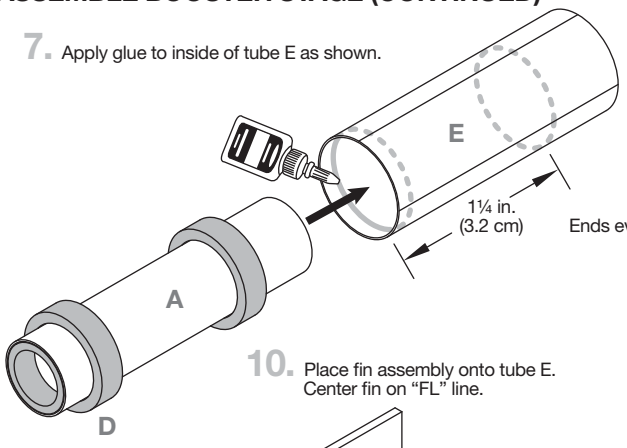


LET DRY

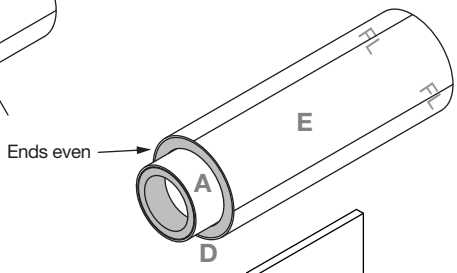
BACK OF FIN MARKING GUIDE

ASSEMBLE BOOSTER STAGE (CONTINUED)

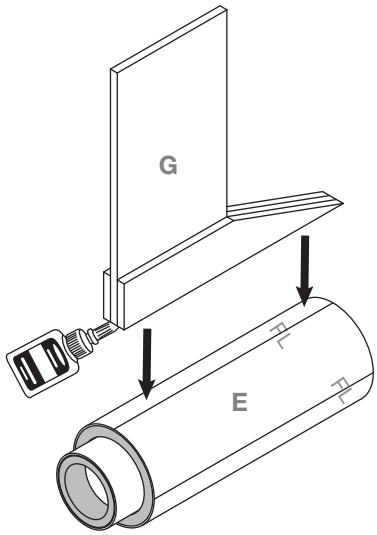
7. Apply glue to inside of tube E as shown.



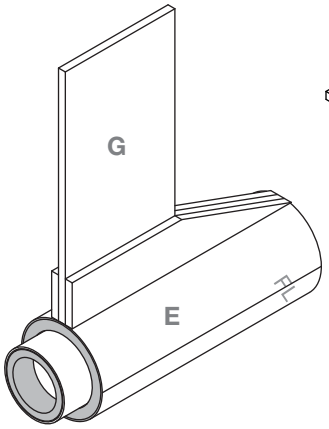
8. Insert booster engine mount into tube E. Ensure centering ring D is flush with the end of tube E.



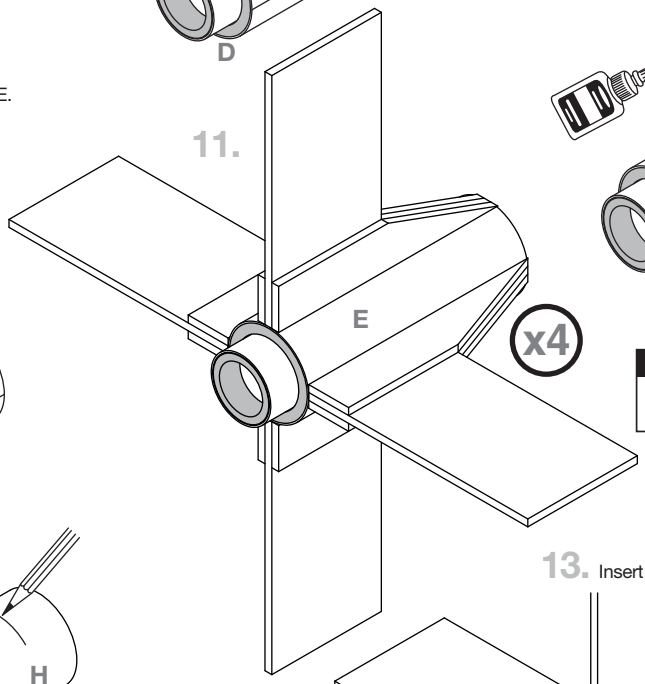
9. Apply glue to root edge of fin assembly.



10. Place fin assembly onto tube E. Center fin on "FL" line.

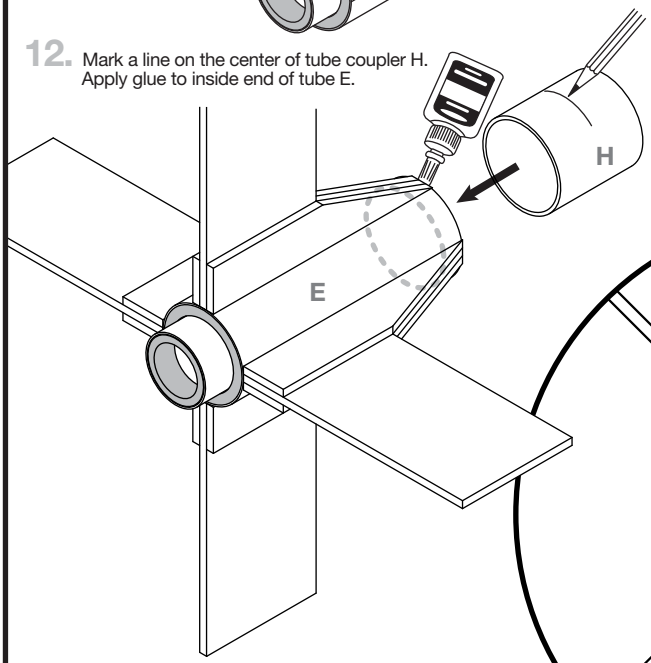


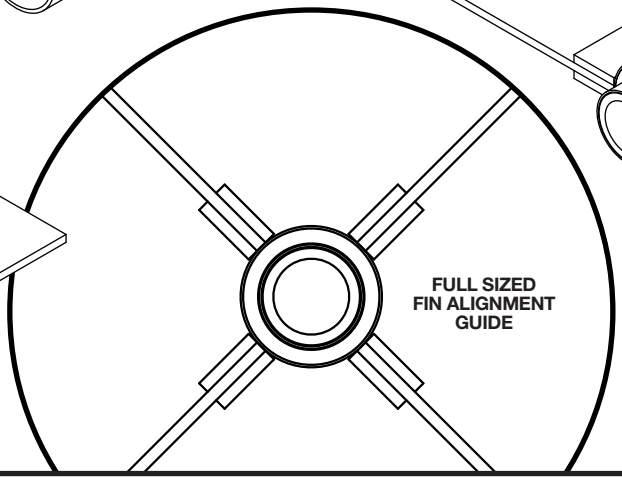
11.



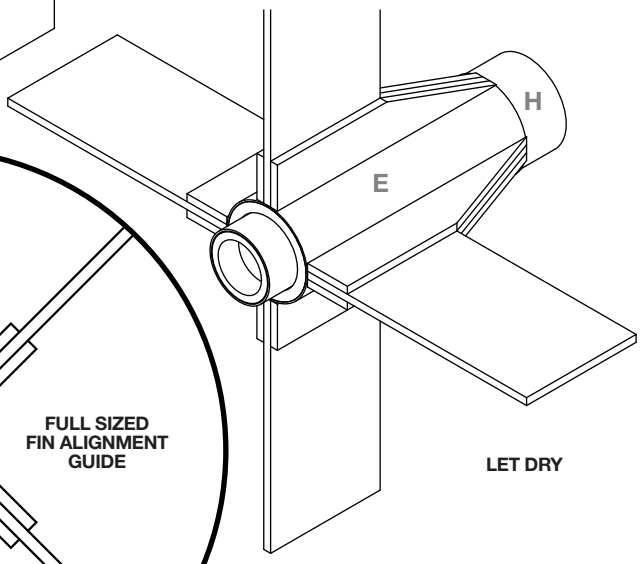
NOTE:
Add glue fillets to all fin and body connection points for added strength.

12. Mark a line on the center of tube coupler H. Apply glue to inside end of tube E.



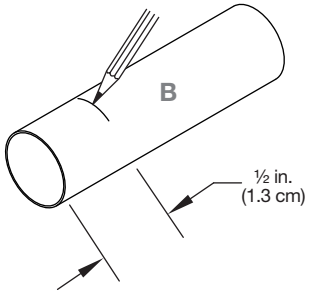


13. Insert H into tube E up to the line.

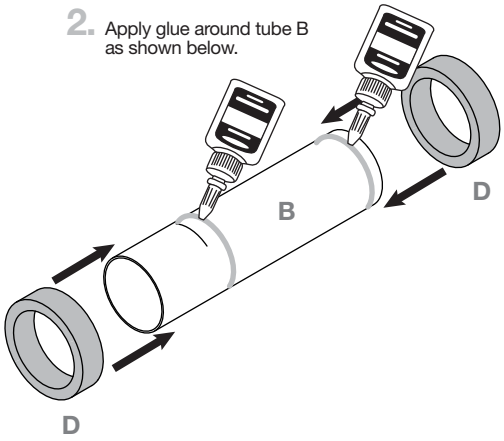


ASSEMBLE UPPER STAGE ENGINE MOUNT

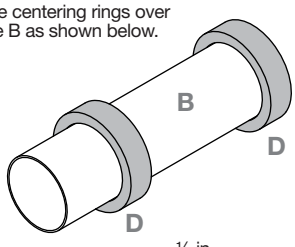
1. Mark a line ½ in. from end of tube B.



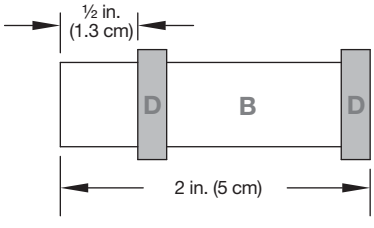
2. Apply glue around tube B as shown below.



3. Slide centering rings over tube B as shown below.

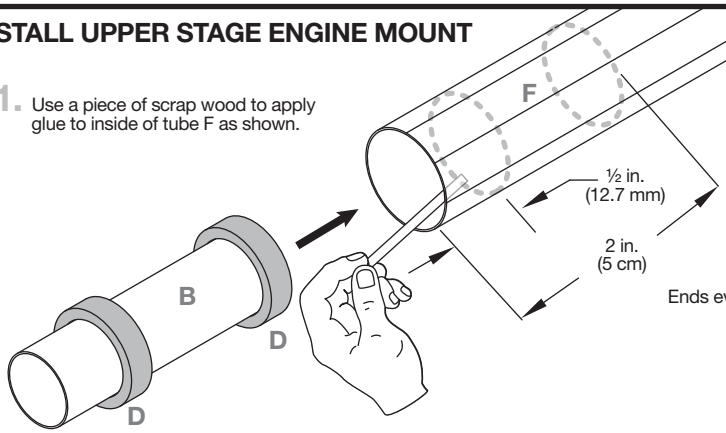


LET DRY

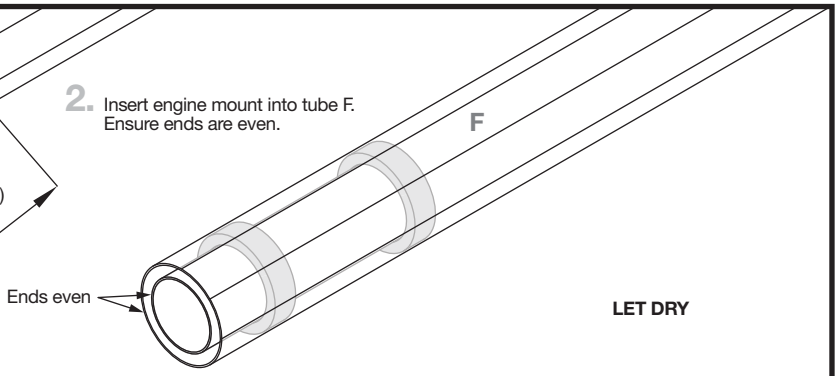


INSTALL UPPER STAGE ENGINE MOUNT

1. Use a piece of scrap wood to apply glue to inside of tube F as shown.



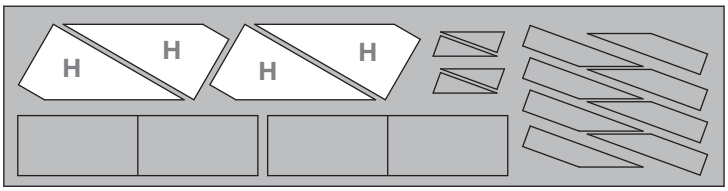
2. Insert engine mount into tube F. Ensure ends are even.



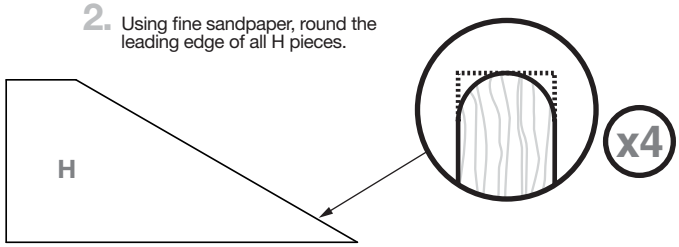
LET DRY

ATTACH FINS AND LAUNCH LUG

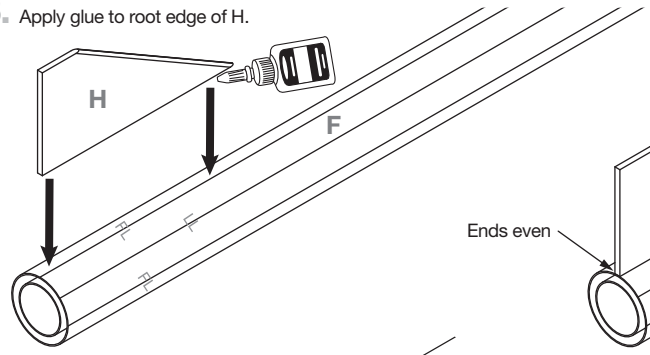
1. Cut out all H parts from wood sheet.



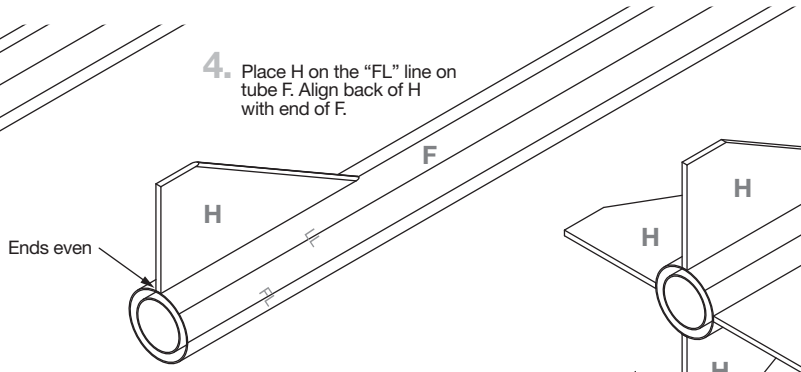
2. Using fine sandpaper, round the leading edge of all H pieces.



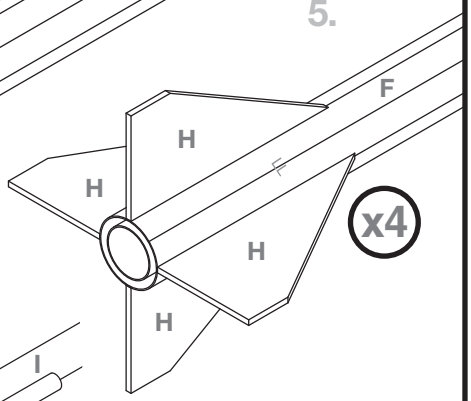
3. Apply glue to root edge of H.



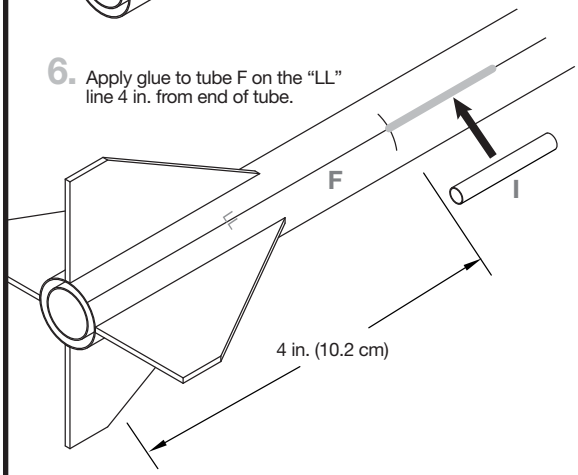
4. Place H on the "FL" line on tube F. Align back of H with end of F.



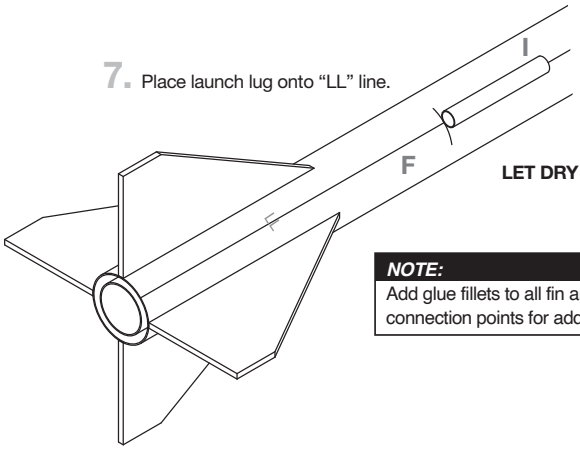
5.



6. Apply glue to tube F on the "LL" line 4 in. from end of tube.



7. Place launch lug onto "LL" line.

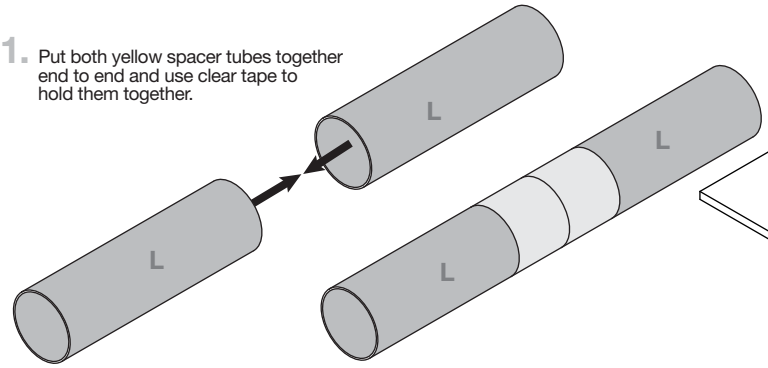


LET DRY

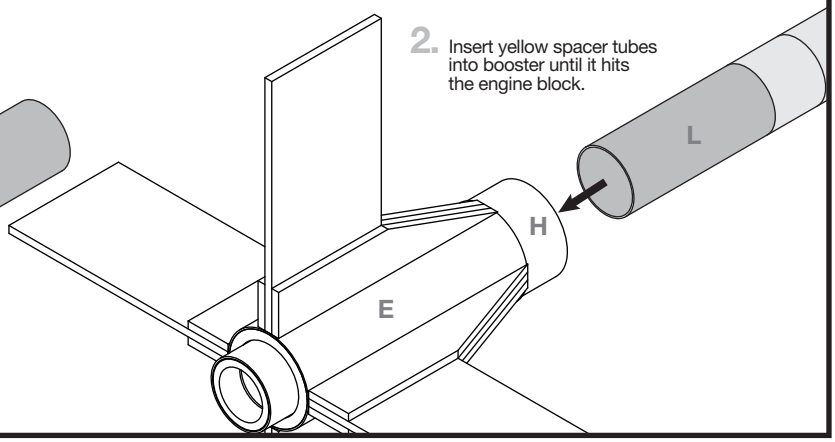
NOTE:
Add glue fillets to all fin and launch lug connection points for added strength.

INSTALL UPPER STAGE ENGINE BLOCK

1. Put both yellow spacer tubes together end to end and use clear tape to hold them together.

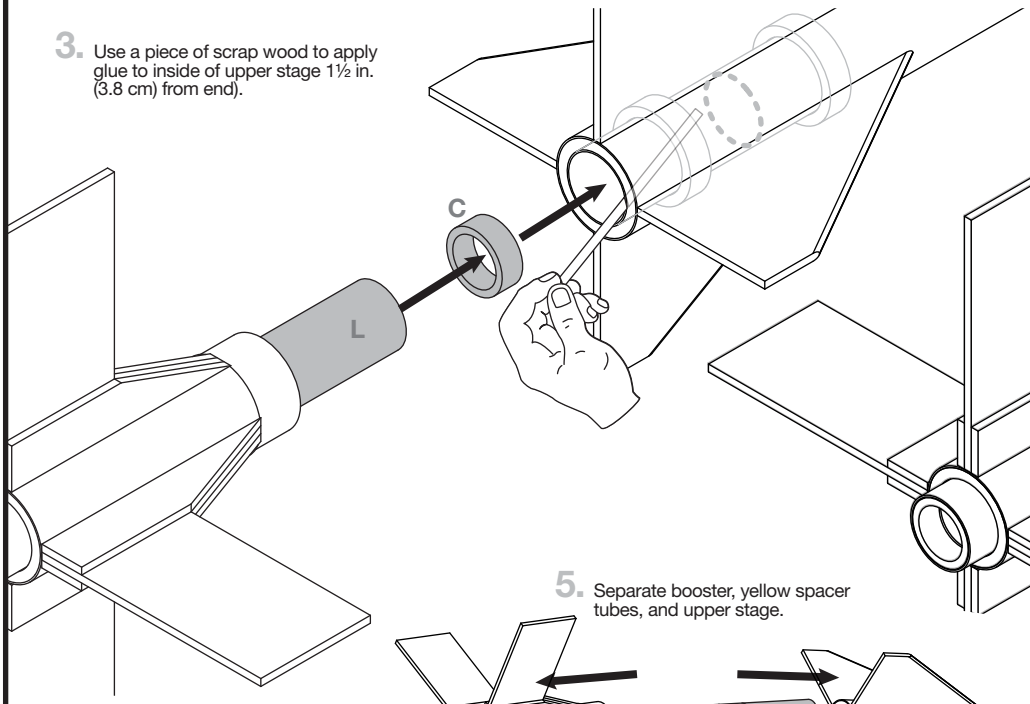


2. Insert yellow spacer tubes into booster until it hits the engine block.

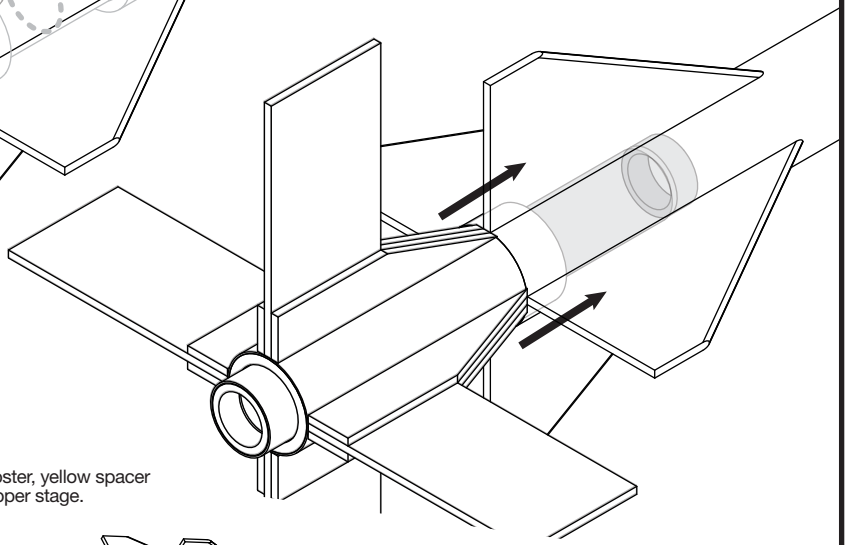


INSTALL UPPER STAGE ENGINE BLOCK (CONTINUED)

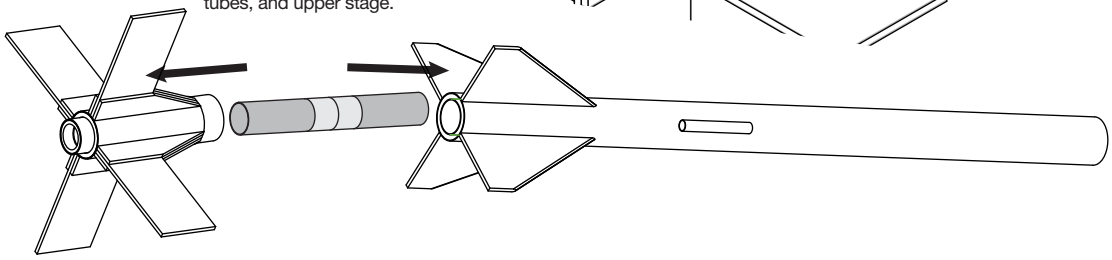
3. Use a piece of scrap wood to apply glue to inside of upper stage 1½ in. (3.8 cm) from end).



4. Insert the engine block into the upper stage. Insert booster with yellow spacers to set the distance of the engine block

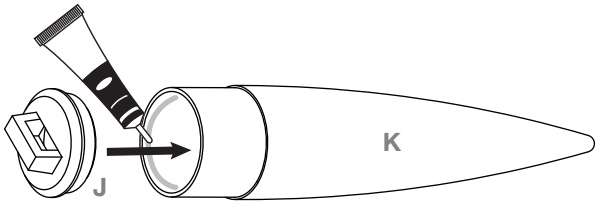


5. Separate booster, yellow spacer tubes, and upper stage.

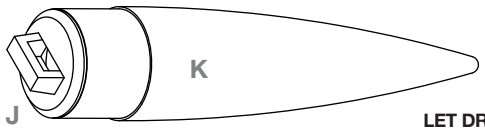


ASSEMBLE NOSE CONE

1. Apply plastic glue to inside edge of K.



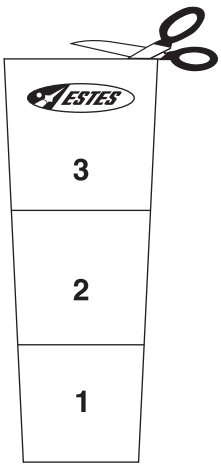
2. Insert J into K.



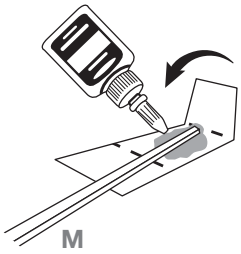
LET DRY

INSTALL SHOCK CORD

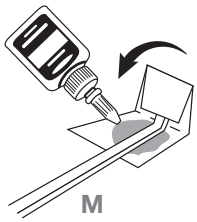
1. Cut out this shock cord anchor.



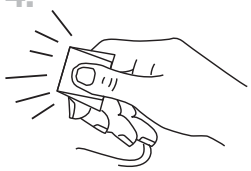
2.



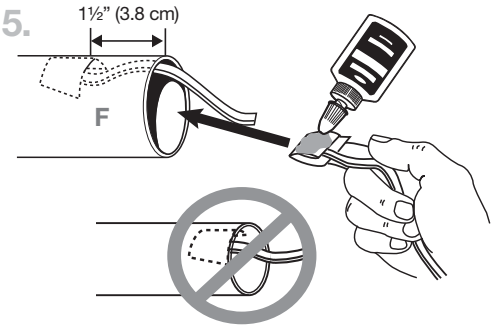
3.



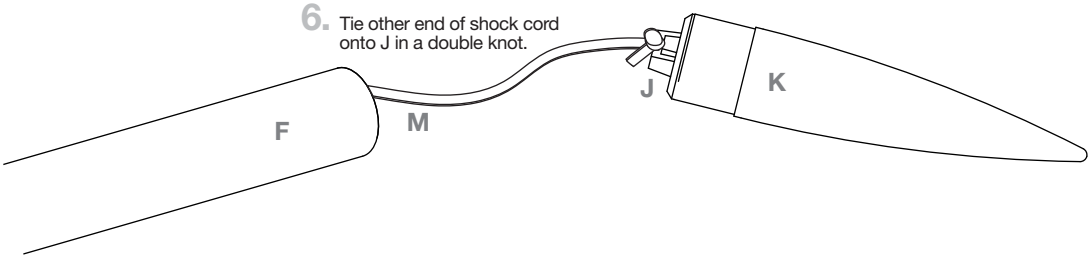
4.



5.



6. Tie other end of shock cord onto J in a double knot.



PAINT AND DECALS

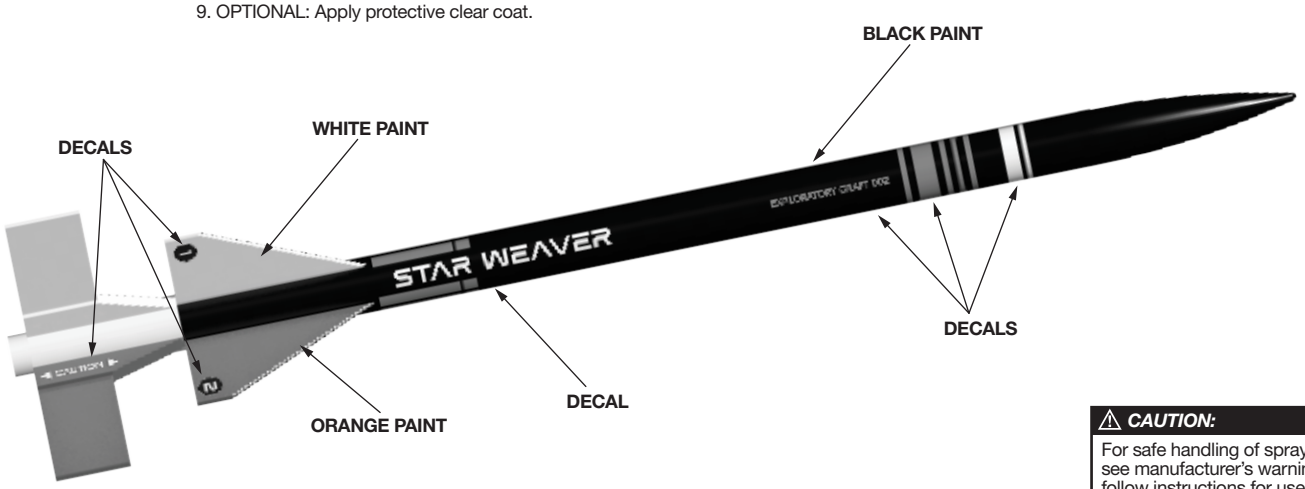
PAINT COLORS

Black
White
Orange

1. Spray rocket with white primer, let dry, and sand. Repeat until rocket is smooth.
2. Paint entire rocket white.
3. Mask off rocket as needed for black and orange paint application.
4. Apply decals only after paint is dry.
5. Cut decals from sheet, trimming close to edge.
6. One at a time, place in warm water until decal curls and begins to relax.
7. Remove and position on rocket, sliding decal away from backing material.
8. Blot with clean paper towel. Let set overnight.
9. OPTIONAL: Apply protective clear coat.

NOTE:

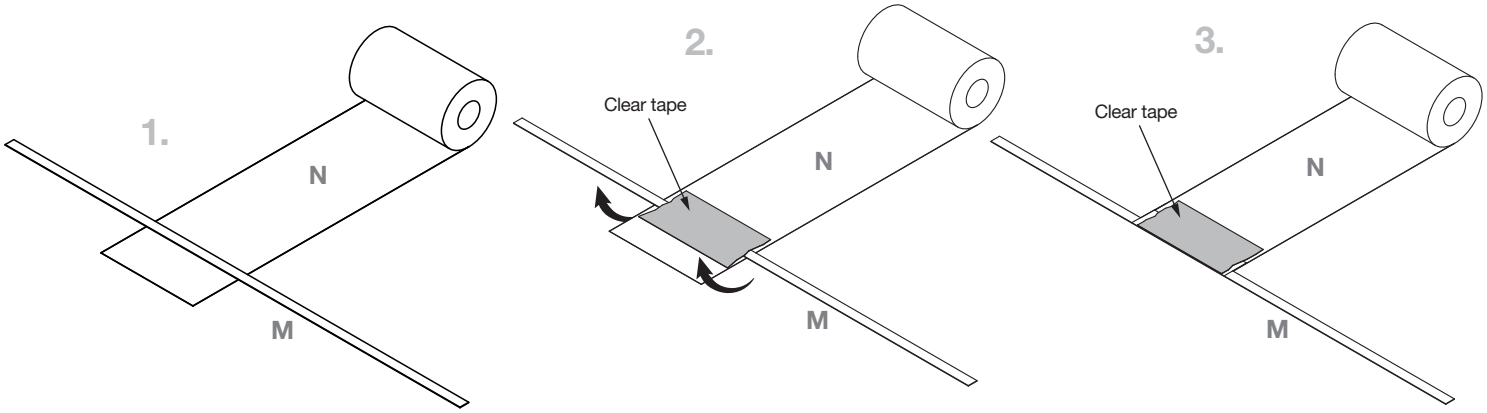
Please refer to packaging for suggested paint scheme and/or decal placement.



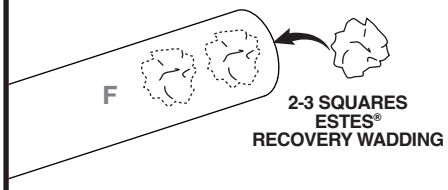
⚠ CAUTION:

For safe handling of spray paints, see manufacturer's warnings and follow instructions for use.

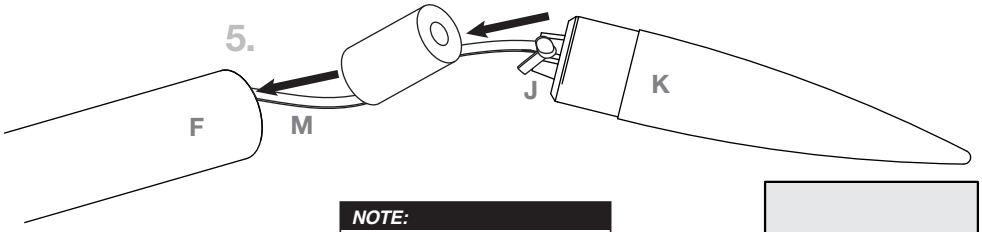
PREPARE RECOVERY SYSTEM



4. Push recovery wadding down body tube.



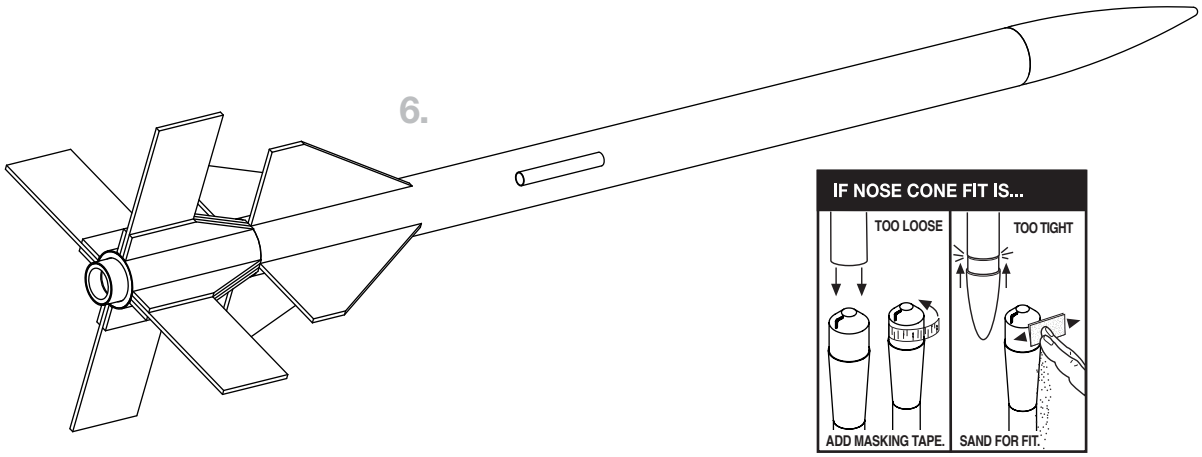
5.



NOTE:

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

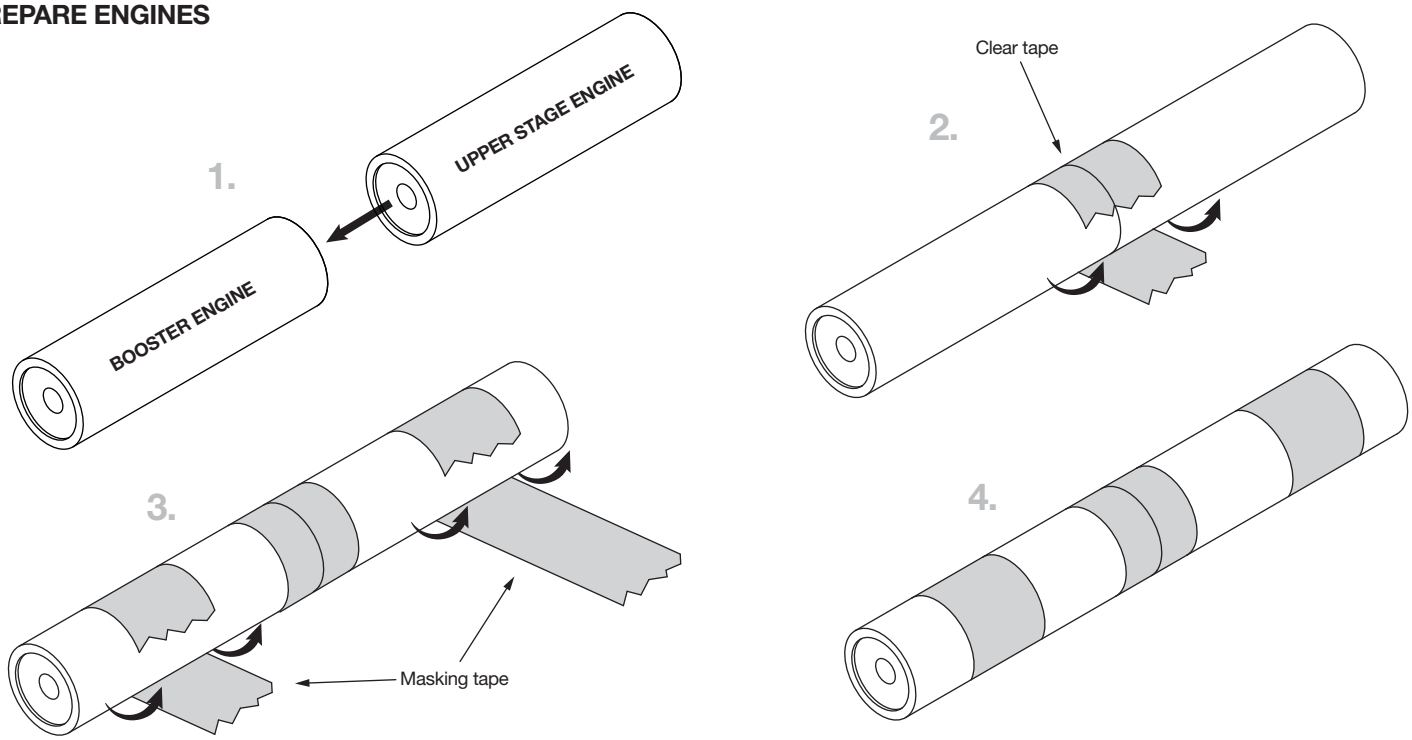
6.



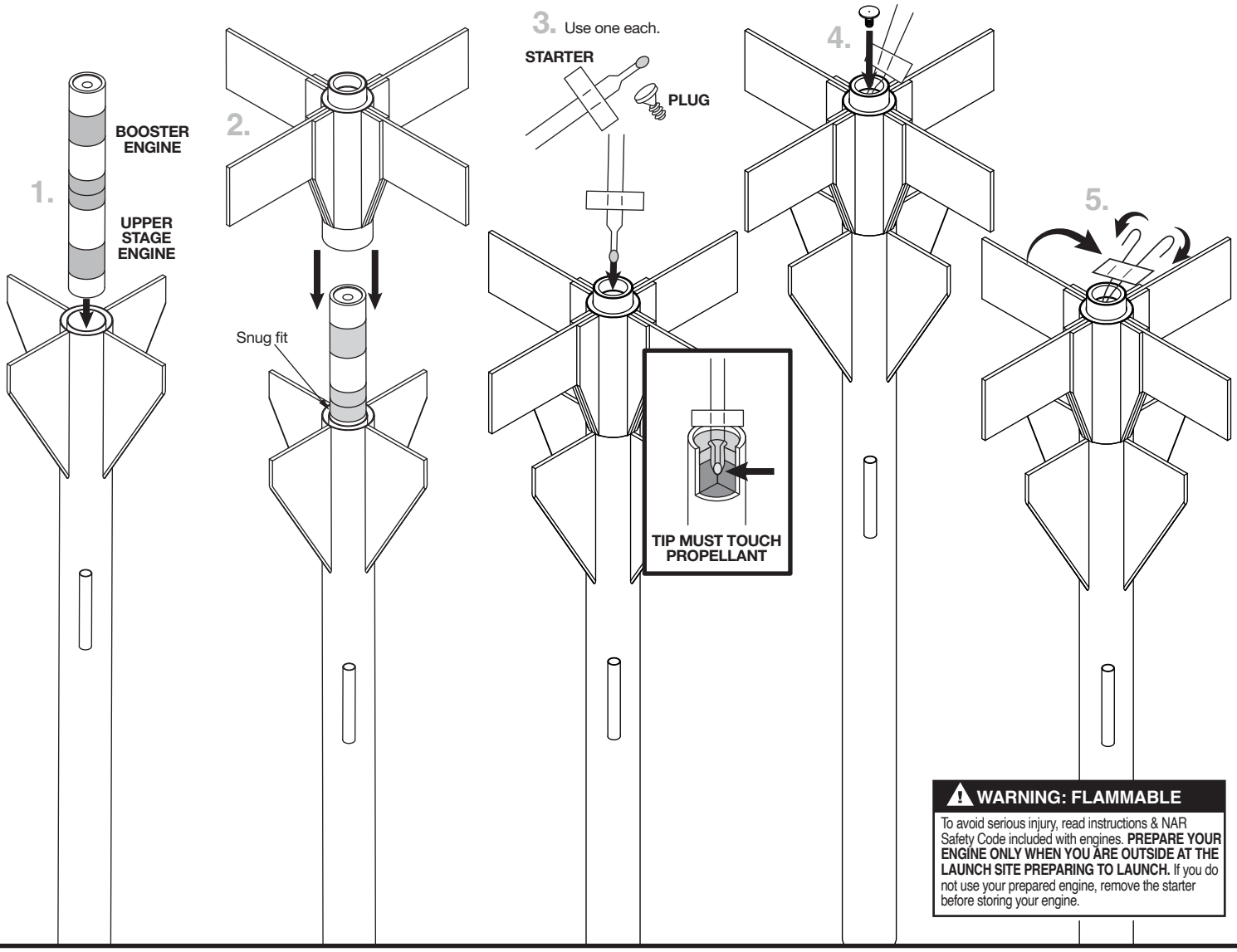
BACK OF SHOCK CORD ANCHOR

IF NOSE CONE FIT IS...

PREPARE ENGINES



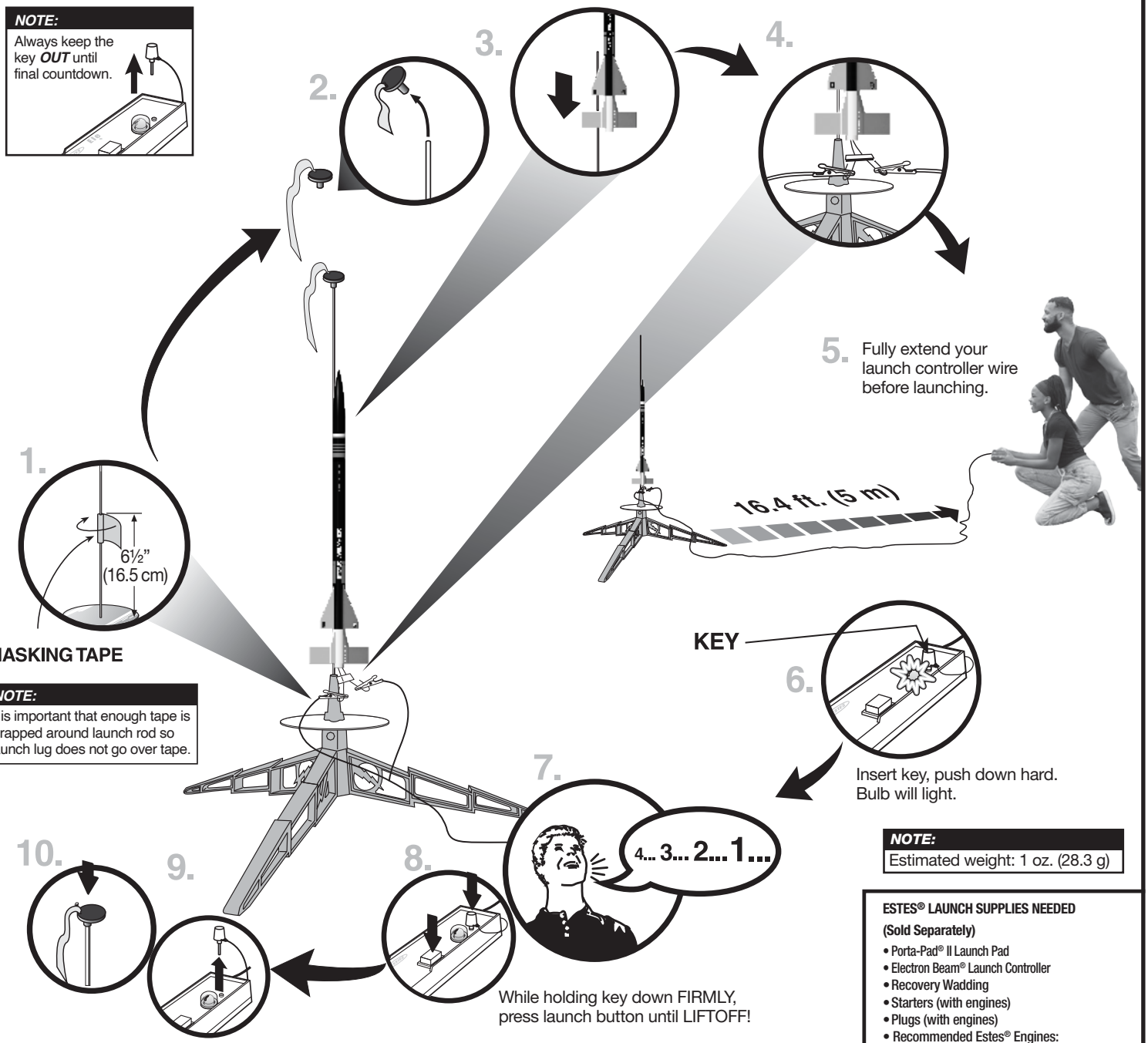
FLIGHT PREPARATION



⚠ WARNING: FLAMMABLE

To avoid serious injury, read instructions & NAR Safety Code included with engines. **PREPARE YOUR ENGINE ONLY WHEN YOU ARE OUTSIDE AT THE LAUNCH SITE PREPARING TO LAUNCH.** If you do not use your prepared engine, remove the starter before storing your engine.

COUNTDOWN AND LAUNCH



NOTE:
Estimated weight: 1 oz. (28.3 g)

ESTES® LAUNCH SUPPLIES NEEDED
(Sold Separately)

- Porta-Pad® II Launch Pad
- Electron Beam® Launch Controller
- Recovery Wadding
- Starters (with engines)
- Plugs (with engines)
- Recommended Estes® Engines:
  Single Stage: ½A3-4T, A3-4T, A3-6T
  2-Stage:
  Booster stage: A10-0T
  Upper stage: ½A3-4T, A3-4T, A3-6T

PRECAUTIONS



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.

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