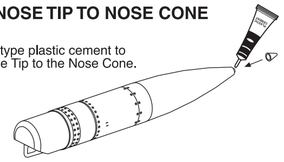
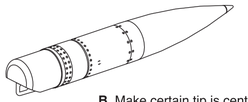
9. GLUE NOSE TIP TO NOSE CONE



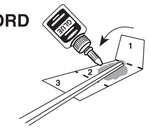
A. Use tube-type plastic cement to bond Nose Tip to the Nose Cone.



B. Make certain tip is centered and straight. Let dry.

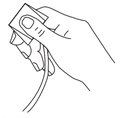
10. PREPARE SHOCK CORD

A. Locate Shock Cord Mount and cut from card. Crease as shown.



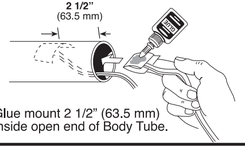
B. Lay Shock Cord on section 2 & 3. Apply glue. Fold forward.

C. Apply glue. Fold forward.

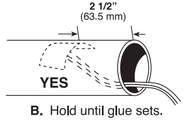


D. Squeeze and hold until glue sets.

11. ATTACH SHOCK CORD



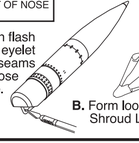
A. Glue mount 2 1/2" (63.5 mm) inside open end of Body Tube.



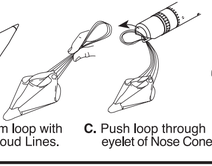
B. Hold until glue sets.

12. ATTACH NOSE CONE AND PARACHUTE

CAUTION:
DO NOT CUT OFF EYELET OF NOSE CONE.

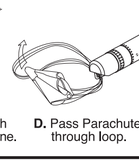


A. Clean flash from eyelet and seams of nose cone.

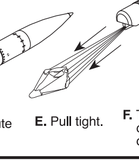


B. Form loop with Shroud Lines.

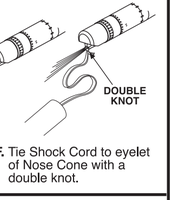
C. Push loop through eyelet of Nose Cone.



D. Pass Parachute through loop.

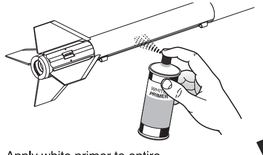


E. Pull tight.



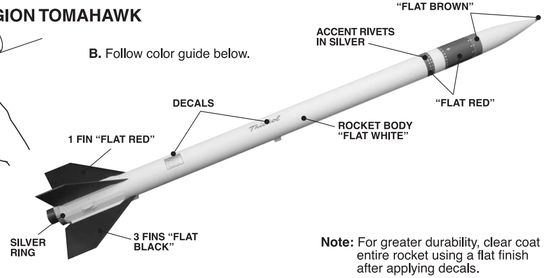
F. Tie Shock Cord to eyelet of Nose Cone with a double knot.

13. PAINTING THE D-REGION TOMAHAWK



A. Apply white primer to entire rocket. When dry, sand using 320 sandpaper.

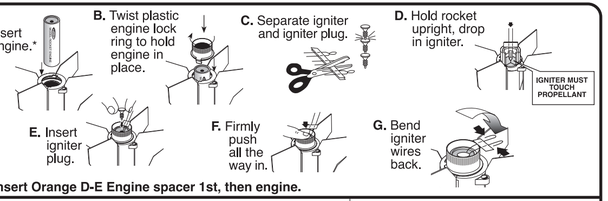
B. Follow color guide below.



Note: For greater durability, clear coat entire rocket using a flat finish after applying decals.

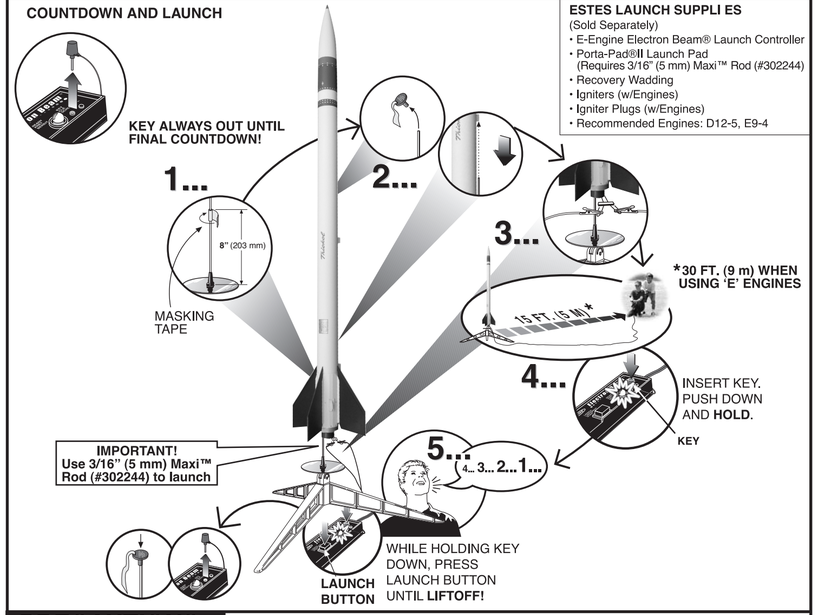
⚠ WARNING: FLAMMABLE

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 igniter before storing your engine.



*** For flights on 'D' Engines, insert Orange D-E Engine spacer 1st, then engine.**

COUNTDOWN AND LAUNCH



ESTES LAUNCH SUPPLI ES

(Sold Separately)
- E-Engine Electron Beam® Launch Controller
- Porta-Pad®II Launch Pad (Requires 3/16" (5 mm) Maxi™ Rod (#302244)
- Recovery Wadding
- Igniters (w/Engines)
- Igniter Plugs (w/Engines)
- Recommended Engines: D12-5, E9-4

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. 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.

PN 61750 (2-07)

www.estesrockets.com

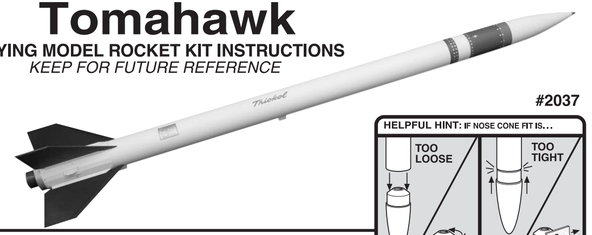
ESTES-COX CORP.
1295 H Street, P.O. Box 227
Penrose, CO 81240-0227

PRINTED IN CHINA

D-Region Tomahawk

FLYING MODEL ROCKET KIT INSTRUCTIONS

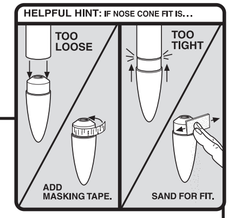
KEEP FOR FUTURE REFERENCE



#2037

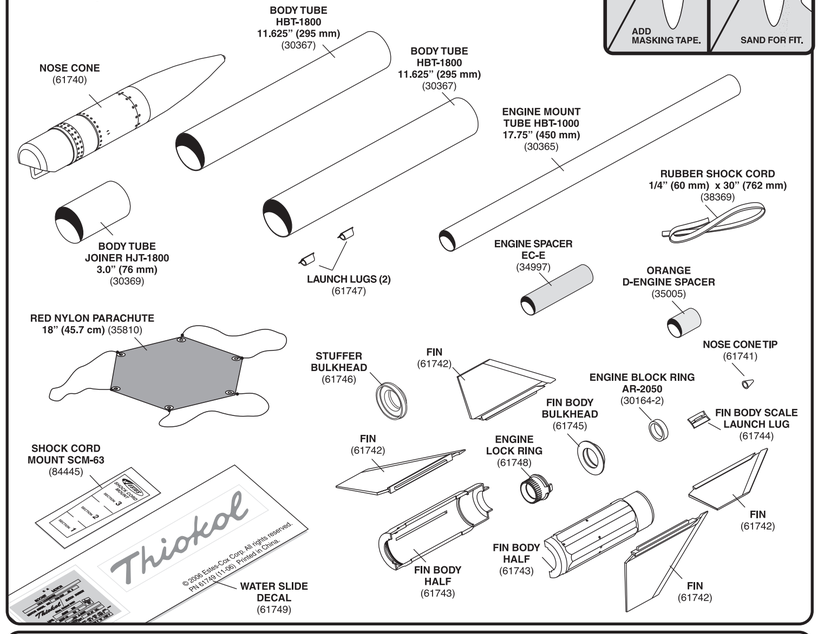
ASSEMBLY TIP: Read all instructions before beginning work on your model. Make sure you have all parts and supplies.

TEST FIT ALL PARTS TOGETHER BEFORE APPLYING ANY GLUE!
If any parts don't fit properly, sand as required for precision assembly.



PARTS

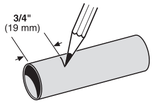
Locate the parts shown below and lay them out on the table in front of you. DO NOT USE THIS DRAWING TO ASSEMBLE YOUR ROCKET.



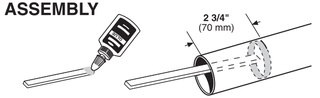
SUPPLIES In addition to the parts included in the kit you will also need:

*Supplies needed will vary based on modeler's experience.

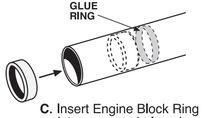
1. ENGINE MOUNT TUBE ASSEMBLY



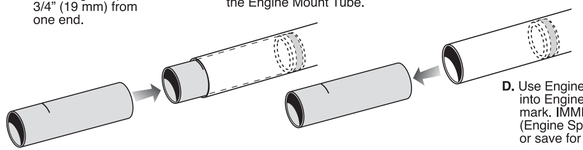
A. Mark Engine Spacer 3/4" (19 mm) from one end.



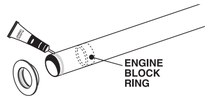
B. Use a length of dowel or a plastic straw to place a ring of carpenter's glue about 2- 3/4" (70 mm) inside one end of the Engine Mount Tube.



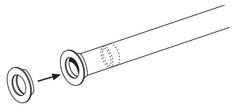
C. Insert Engine Block Ring into same end of engine mount tube.



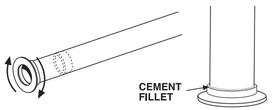
D. Use Engine Spacer to push Engine Block Ring into Engine Mount Tube up to 3/4" (19 mm) mark. IMMEDIATELY remove Engine Spacer. (Engine Spacer not required after this. Discard or save for future use.)



E. Apply a ring of tube-type plastic cement around end of Engine Mount Tube.

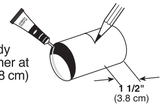


F. Push Fin Body Bulkhead all the way onto end of tube and over cement.

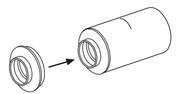


G. Twist Bulkhead back and forth to help evenly spread cement between two parts. For added strength apply a fillet of cement around ring and tube. Let glue dry.

2. STUFFER BULKHEAD ASSEMBLY



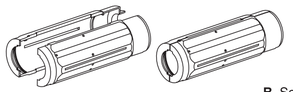
A. Mark Body Tube Joiner at 1 1/2" (3.8 cm)



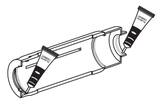
B. Apply a ring of tube-type plastic cement around inside of one end of Body Tube Joiner. Insert Stuffer Bulkhead into end of Joiner Tube.

C. Twist Bulkhead back and forth to help evenly spread cement between two parts. Let glue dry.

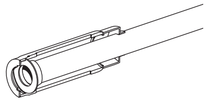
3. FIN BODY ASSEMBLY



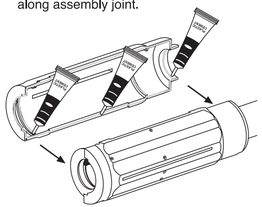
A. Test-fit two Fin Body Halves together for proper fit. There should be no gaps along assembly joint.

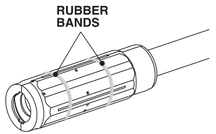


B. Select one of two body halves to begin assembly. Apply tube-type plastic cement in groove where Fin Body Bulkhead is to fit. Then apply a line of tube-type plastic cement along forward area where Engine Mount Tube will lay as shown.



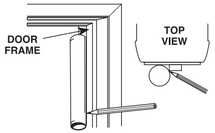
C. Lay Tube Assembly into Fin Mount half so that edge of Fin Body Bulkhead fits into groove, and Body Tube contacts forward section as shown.



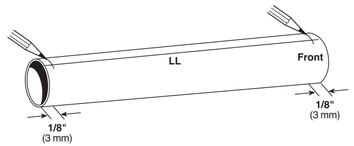


D. Apply tube-type plastic cement around the outside edge and into groove and forward area of 2nd Fin Body half. Align and join 2nd Fin Body Half to assembly. Secure with tape or rubber bands until glue dries.

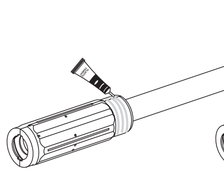
4. LOWER BODY TUBE ASSEMBLY



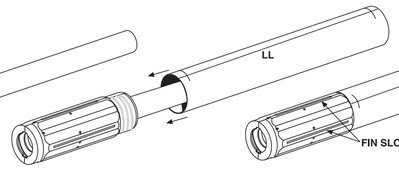
A. Using a door frame as a guide, use a pencil to draw a straight line the length of a Body Tube. Mark line "LL" for Launch Lug.



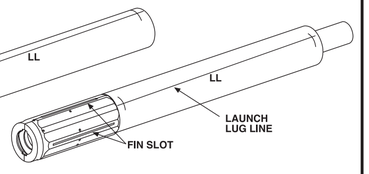
B. Make a mark 1/8" (3 mm) from each end of Body Tube on LL line.



C. Apply three or four bands of tube-type plastic cement around outside mount area of Fin Body Assembly.

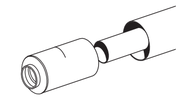


D. Slide Body Tube into place as shown.

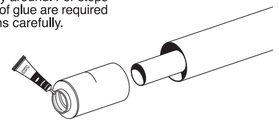


E. Twist Body Tube back and forth to evenly spread the plastic cement between parts. Position tube so launch lug line is centered between two fin slots as shown. Wipe excess cement away.

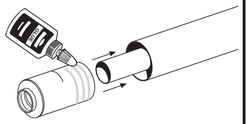
Note: Flip the Lower Body Tube Assembly around. For steps F-H, the use of two different types of glue are required at the same time. Follow directions carefully.



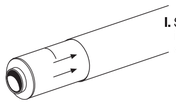
F. Test fit Stuffer Bulkhead assembly to Body Tube Assembly.



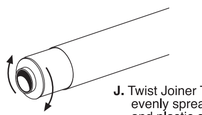
G. Apply tube-type plastic cement around inside end of Stuffer Bulkhead as shown.



H. Quickly apply rings of carpenter's glue around outside of Stuffer Bulkhead Assembly up to mark as shown.

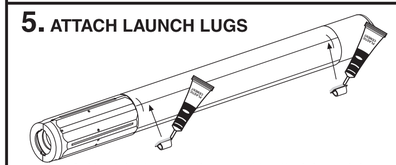


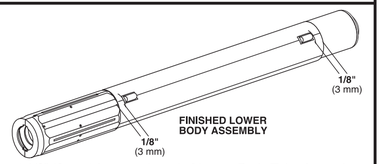
I. Slide Stuffer Bulkhead Assembly into Body Tube and down over end of Engine Mount Tube.



J. Twist Joiner Tube back and forth to evenly spread both carpenter's glue and plastic cement.Wipe any excess glue away and let dry.

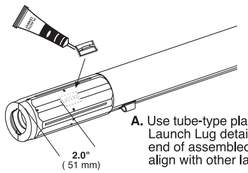
5. ATTACH LAUNCH LUGS



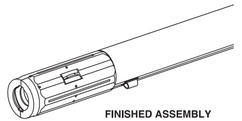


A. Use tube-type plastic cement to attach Launch Lugs on LL line at 1/8" (3 mm) from each end of Lower Body Tube Assembly. Make certain Launch Lugs are aligned (HINT: Use a launch rod to check alignment of lugs). Let dry.

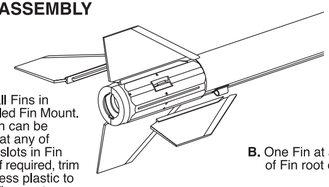
6. ADD SCALE LAUNCH LUG DETAIL



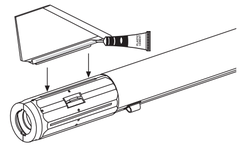
A. Use tube-type plastic cement to glue Scale Launch Lug detail piece 2" (51 mm) from end of assembled fin mount unit. Do not align with other launch lugs.



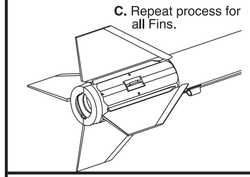
7. FIN ASSEMBLY



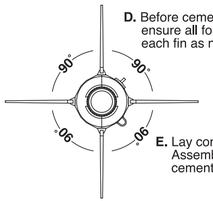
A. Test fit all Fins in assembled Fin Mount. Each Fin can be located at any of molded slots in Fin Mount. If required, trim any excess plastic to ensure fins seat properly in slots.



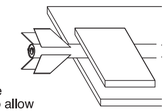
B. One Fin at a time, apply a bead of tube-type plastic cement along both sides of Fin root edge where it meets Fin Mount surface. Insert Fin into place.



C. Repeat process for all Fins.

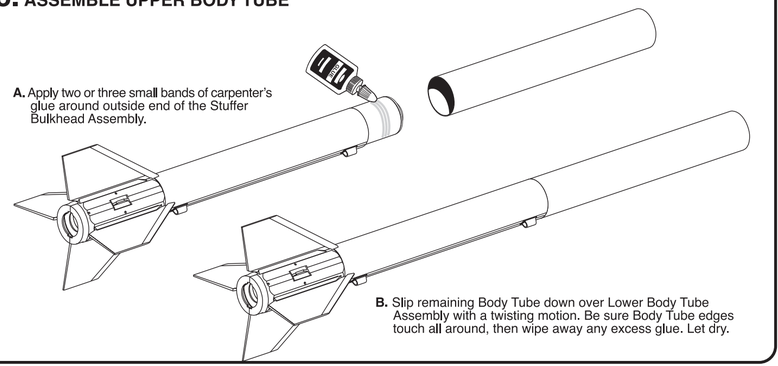


D. Before cement is completely dry, view model from rear to ensure all four fins are positioned 90 degrees apart. Adjust each fin as necessary.



E. Lay completed Lower Body Tube Assembly over edge of a table to allow cement to completely dry.

8. ASSEMBLE UPPER BODY TUBE



A. Apply two or three small bands of carpenter's glue around outside end of the Stuffer Bulkhead Assembly.

B. Slip remaining Body Tube down over Lower Body Tube Assembly with a twisting motion. Be sure Body Tube edges touch all around, then wipe away any excess glue. Let dry.