BEFORE YOU START!

Make sure you have all the parts included in this kit that are listed in the Parts List. In addition to the parts included in this kit, you will also need the tools and materials listed below. Read the entire instructions before beginning to assemble your mount. When you are thoroughly familiar with these instructions, begin construction. Read each step and study the accompanying drawings. Check off each step as it is completed. In each step, test-fit the parts together before applying any glue. It is sometimes necessary to sand lightly or build-up some parts to obtain a precision fit. Some of the plywood rings are very fragile until they are bonded to the tubes. It is important that you always ensure that you have adequate glue joints.

TOOLS: In addition to the parts supplied, you will need the following tools to assemble and finish this kit.



June 25, 2010

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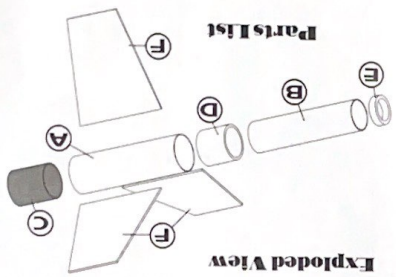
Exploded View



Parts List

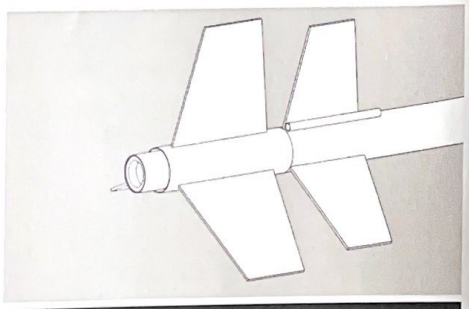
A 1 Body Tube ST-830
B 1 Engine Tube ST-730
C 1 Tube Coupler HTC-8
D 1 Centering Ring CR-78L
E 1 Thrust Block TB-7
F 1 Fin Set FM-3

NOTE: Assemble the upper stage before beginning assembly of this booster. Make sure the centering ring is recessed at least 1/2" from the end of the body tube.

ASSEMBLY

❑ **1.** These instructions are presented in a logical order to help you put your #8 Booster together quickly and efficiently. Check off each step as you complete it and we hope you enjoy putting this kit together and flying it with your favorite kit.

❑ **9.** Insert the coupler of the booster into the upper stage model. Insert the engine mount assembly into the booster body tube until the bottom of the engine mount tube touches the engine hook and engine in the upper stage. Depending on the upper stage mount, the booster engine tube will extend about 1/2" from the bottom of the booster body tube. Do not stop until it is in the correct place.



PREPARE FOR LAUNCH

❑ **10.** Apply a piece of masking tape near the top of the booster engine and install it from the top of the #8 Booster. Engines used in the booster stage should always be booster engines with 0 seconds delay such as B6-0 or C6-0.

Prepare the sustainer or upper stage as recommended in the instructions for the model. Slide the booster into position on the bottom of the sustainer.

SEMROC

Booster #8

Optional Booster for ST-8 size rockets like:

- Excalibur
- Thunder chief
- Snipe Hunter

Laser Cut Fins



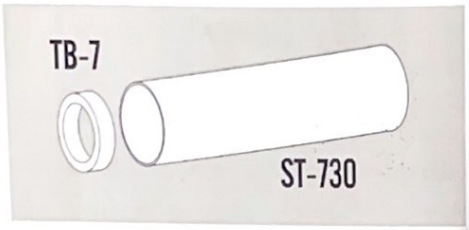
Made in the U.S.A by Semroc Astronautics Corporation - Knightdale, N.C. 27545

#8 Booster
Kit No. KM-3

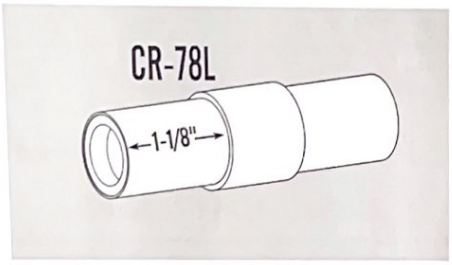
Specifications of Excalibur with #8 Booster		Engines	Approx. Altitude
Body Diameter	0.908" (2.3 cm)		
Length	29.4" (74.7 cm)	B6-0,A8-5	600'
Fin Span	5.9" (15.0 cm)	B6-0,B6-6	850'
Net Weight	1.8 oz. (51.1 g)	C6-0,C6-7	1700'

ENGINE MOUNT ASSEMBLY

❑ 2. Apply a bead of glue inside one end of the engine tube (ST-730). Insert the thrust block (TB-7) until it is flush with the engine tube. Allow to dry.

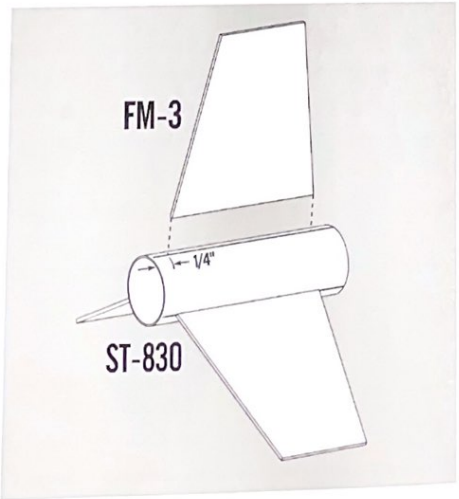


❑ 3. Slide the centering ring (CR-78L) over the engine tube until it is about 1-1/8" from the bottom end. Apply a bead of glue around each side of the centering ring, keeping the glue off the outside surface of the centering ring. Allow to dry.



ATTACH FINS

❑ 6. Apply glue to the root edge of one of the three fins and position it along one of the lines drawn on the side of the booster body tube (ST-830). Remove the fin, set it aside and allow it to almost dry, apply additional glue, and reposition. Repeat for the other two fins. If you follow these instructions, the fins will not require much additional work to keep them aligned. Allow the fins to completely dry, checking carefully to make sure they are aligned properly.

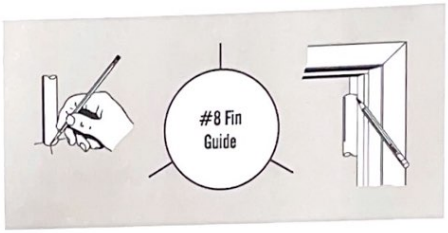


FIN PREPARATION

❑ 4. For best results, lightly sand each edge of each of the three fins. Apply a thin coat of cyanoacrylate (CA) glue along each edge to seal the laminations. Identify the root edge from the drawing below. The root edge will be attached to the body tube.

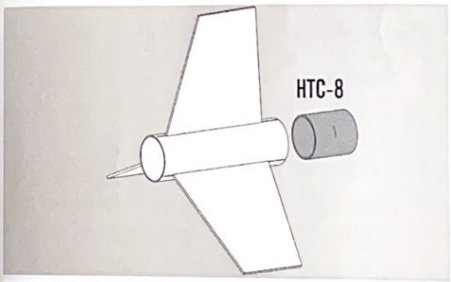


❑ 5. Stand the booster body tube (ST-830) on the fin guide below and make the fin position marks on the sides of each tube. Find a convenient channel or groove such as a partially open drawer, a door jamb (as shown,) or a piece of molding. Using the channel, extend the marks the full length of the tube to provide lines for aligning the fins.



COUPLER

❑ 7. Mark the coupler (HTC-8) 1/2" from either end. Apply a bead of glue inside the top of the booster body tube (ST-830) and insert the coupler until the mark is even with the end of the body tube. Allow to dry.



ATTACH MOUNT

❑ 8. To achieve proper fit, insert an engine in the upper stage model and an engine in the engine mount tube assembly. Apply a bead of glue inside the aft end of the booster body tube. Align the engine mount with the thrust block away from the booster body tube.

