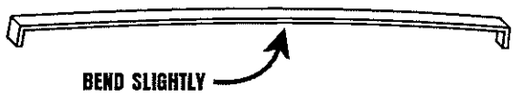
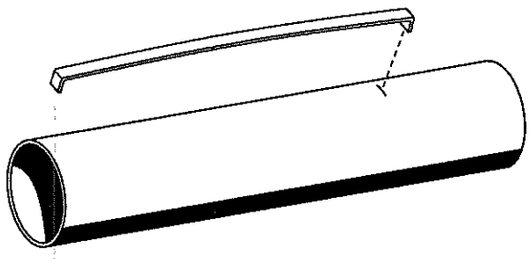
ENGINE HOOKS

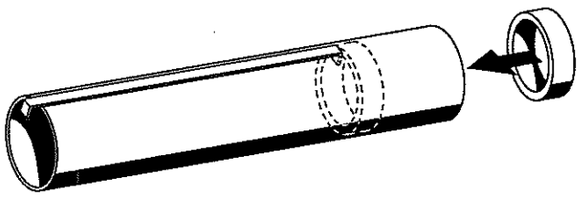
❑ **2.** Bend both engine hooks slightly so they form a slight bow in the direction shown.



❑ **3.** Insert one end of an engine hook into the pre-punched slot in one of the engine tubes.

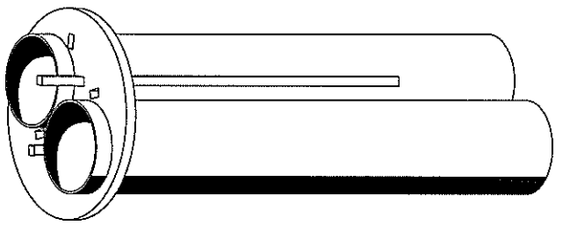


❑ **4.** Glue the thrust ring in the top of the engine tube against the engine hook as shown. Repeat for the other engine mount.

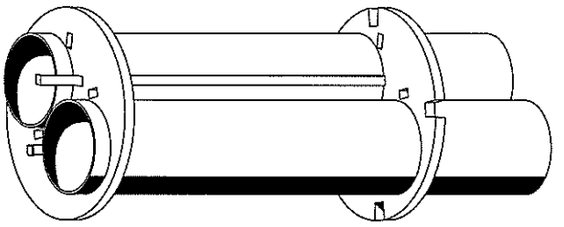


FITTING THE RINGS

❑ **5.** The two centering rings are similar and have to be located as shown in the following illustrations. Locate the bottom ring (without the notches on the outside edge) and align it and the two engine mount tubes as shown. Make sure the engine hooks move freely in the slots. Leave about 1/4" of both the engine tubes showing. Tack the ring in place, but wait until later for the fillets.

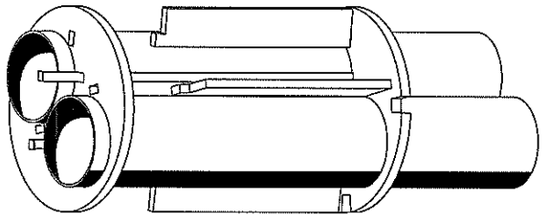


❑ **6.** Slide the top ring over both the engine mounts making sure both the engine hooks fit in the small slots in the top ring. Refer to the drawing to make sure it is aligned properly. Do not get any glue on the ring at this time. More glue and fillets will be added later.

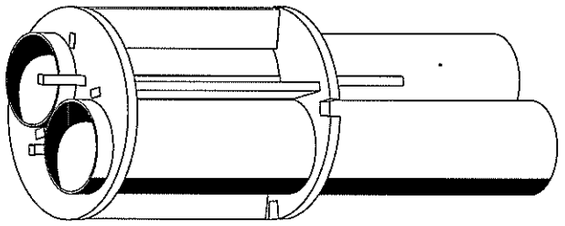


ADDING THE RAILS

❑ **7.** Punch out the four basswood rails. Insert them as shown in the top ring. Do not glue into place yet.



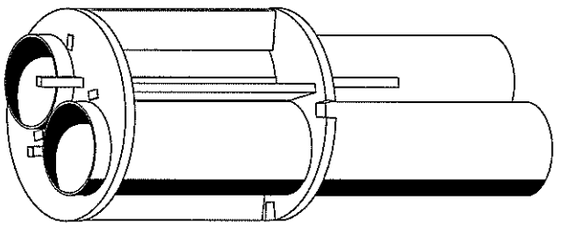
❑ **8.** Slide the ring and rails toward the bottom ring, aligning the tabs in the four slots. Twist the assembly slightly until they are all lined up parallel to the engine tubes.



❑ **9.** Compare your mount with the above illustration. Make sure it looks the same!

NOW THE GLUE!

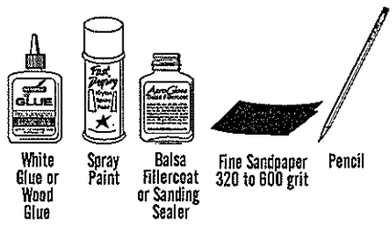
❑ **10.** Apply a bead of glue on all the joints in the assembly. Keep glue away from the outer edge of both rings and the slots in the top ring. A coating of glue inside the top of both engine tubes and on the outside surface will help protect it from delay and ejection gases.



FINISHING

❑ **11.** Most of the Dual Mount is inside the SLS Laser-X and does not have to be painted. The bottom of the mount may be painted to match your Laser-X colors or painted flat black. Keep paint off the edges of the large rings. A small amount of sanding may be necessary to ensure a proper fit in the SLS Laser-X.

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



Parts List

2	Body Tubes	ST-950E
2	Thrust Rings	TR-9
2	Engine Hooks	EH-38
2	Thrust Spacers	TS-9
1	Centering Ring Set	CR-KLV-33-2
1	Basswood Fin Set	FLV-33-2

ASSEMBLY

❑ **1.** These instructions are presented in a logical order to help you put your SLS Laser-X Dual Mount together quickly and efficiently. Check off each step as you complete it and enjoy putting this kit together and flying your SLS Laser-X.

BEFORE YOU START!

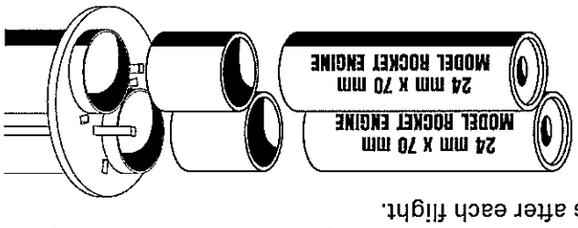
Make sure you have all the parts included in this kit that are listed in the Parts List. In addition to the parts included in this kit, you will also need the tools and materials listed below. Read the entire instructions before beginning to assemble your mount. When you are thoroughly familiar with 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.

November 20, 2005

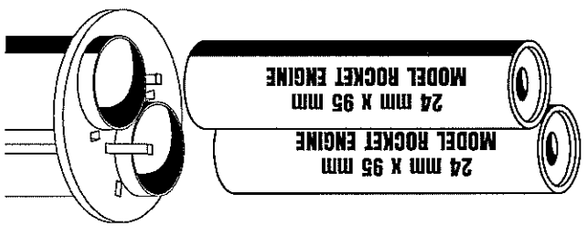
Copyright © 2005 Semroc Astronautics Corporation
Box 1271 Knightdale, NC 27545 (919) 266-1977

ADDING THE ENGINES

❑ **12.** The SLS Laser-X should always be flown with two matching engines. If you use the shorter 2.75" (70mm) engines, use the Thrust Spacers provided in front of the engines. Save the thrust spacers after each flight.



❑ **13.** The longer engines are inserted directly without the spacers.



TIPS:

Always place a small amount of recovery wadding on the top of each engine in a cluster rocket. This will prevent "top-lighting" in case of an engine failure.

Remove and clean the engine mount after each flight.

Make sure you have sufficient battery voltage and amperage to ignite all four engines.

SLS LASER-X DUAL MOUNT
Kit No. EM-33-2

Specifications of SLS Laser-X with Quad Mount		Engines	Approx. Altitude
Body Diameter	2.34" (5.9 cm)		
Length	36.9" (93.7 cm)	Two C11-3	350'
Fin Span	12.3" (31.2 cm)	Two D12-5	850'
Net Weight	7.7 oz. (218.3 g)	Two E9-6	1400'

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

