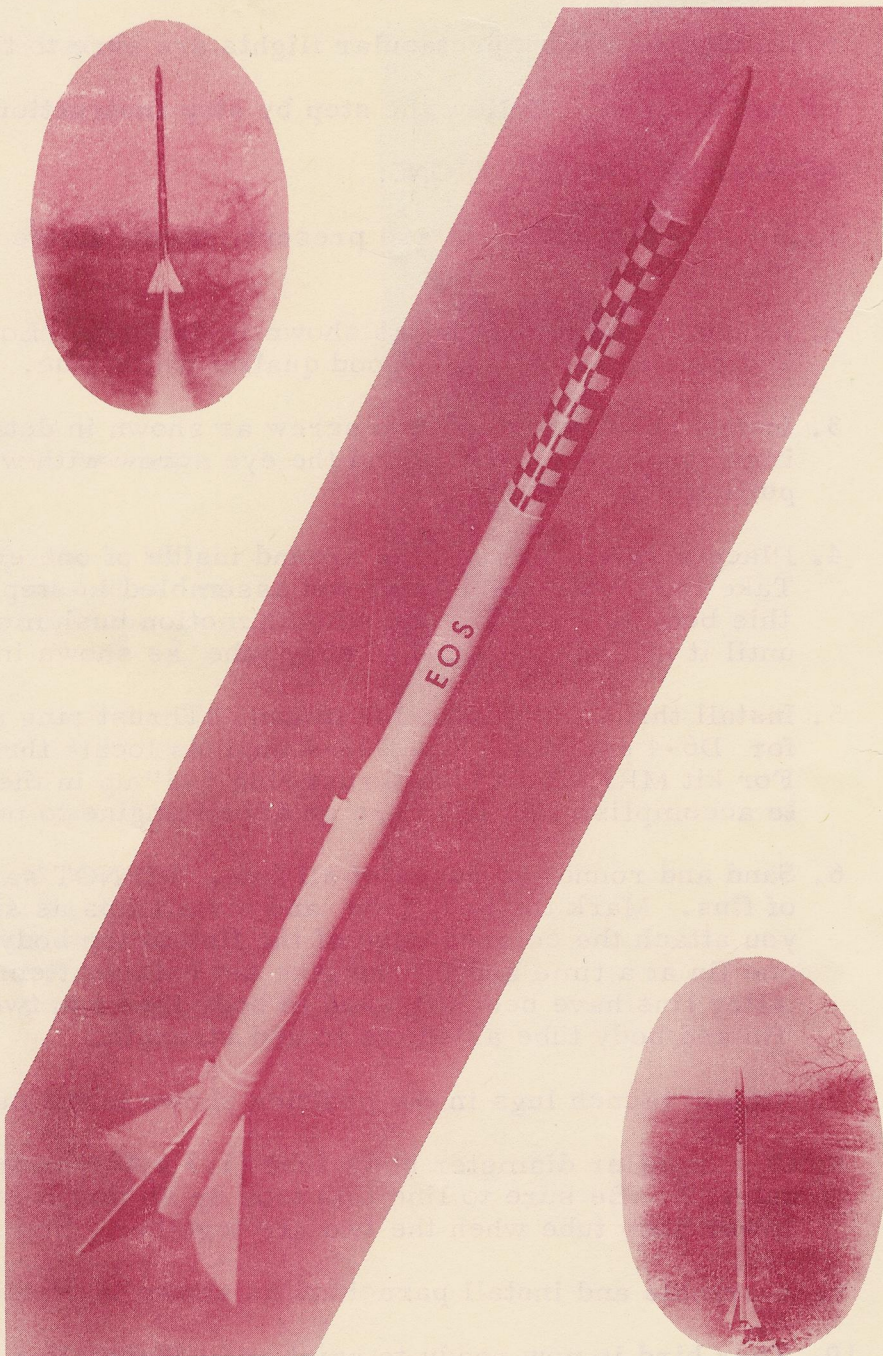




EOS

MODEL ROCKET
"GODDESS of the WINDS"
42.5 inches TALL!



SPECIFICATIONS: Length ----- 42.5 "
Body Dia.
Above trans. -- 1.34"
Below trans. -- 1.64"
Aprox. takeoff wt.
without engines: 4.25 oz.

Recommended F.S.I. engines: D6-4
D18-4

This Kit is
For D engines
Kit No. MRK-16

FLIGHT SYSTEMS, INC.
9300 East 68th Street
Raytown, Missouri 64133

EOS in Greek mythology was the goddess of the winds. Our EOS is as the name implies truly a "goddess of the winds". It is an extremely stable rocket designed for use in demonstration flights. The long burning F.S.I. thrusters produce slow realistic takeoffs. Spectacular flights are sure to thrill all who watch this bird lift off the pad. Follow the step by step instructions when assembling your rocket.

ASSEMBLY INSTRUCTIONS:

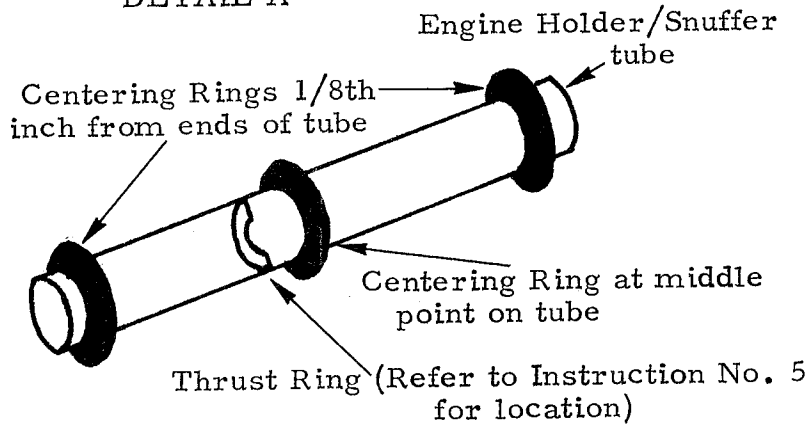
1. Be sure that all parts are present. Familiarize yourself with the parts and these instructions.
2. Assemble motor mount as shown in detail A. Locate centering rings as shown and glue in place with a good quality white glue. Set aside to dry.
3. Install shock cord and eye screw as shown in detail B. It is a good idea to impregnate the area around the eye screw with white glue to prevent the eye from pulling out.
4. Place a small ring of glue around inside of one end of large body tube (1.6 x 18"). Take the motor mount that you assembled in step 2 and insert it into the end of this body tube. With one smooth motion push motor mount into the body tube until it is flush with end of body tube as shown in cutaway drawing.
5. Install thrust ring in motor mount. Thrust ring should be 2.5" up in motor mount for D6-4 engines. For D18-4 engines locate thrust ring 3.5" up in motor mount. For kit MRK-16F place thrust ring 5.5" up in the motor mount. An easy way to accomplish this is to use an actual engine to push the thrust ring into position.
6. Sand and round the edges of all fins. DO NOT sand the root edge (colored edge) of fins. Mark the body tube and install fins as shown in detail C. Be sure that you attach the colored edge of the fins to the body tube. It is much easier to install one fin at a time and let the glue set before attempting to install the next one. After fins have been attached to body tube run two or three fillets of glue along fin and body tube as shown to add strength.
7. Attach launch lugs in the position shown in the cutaway view of rocket.
8. Glue smaller diameter body tube (1.3 x 18") to transition section as shown in detail B. Be sure to line this tube up so that it is in a straight line with the lower body tube when the two are together. Now attach the nose cone.
9. Assemble and install parachute as shown in detail D and cutaway view.
10. Your bird is now ready to paint and add decals. Finishing techniques are many and varied, therefore they will not be dealt with here other than to say that we at F.S.I. obtain fine results by applying several coats of orange (not white) shellac which has been thinned about 5 to 7 parts alcohol to one part shellac. We sand between each application. A fast dry enamel is then sprayed on in several thin coats.
11. The EOS is now ready to fly. When you arrive at the launch site prepare the engine you have chosen as shown in detail E. Wrap sufficient masking tape around the engine so that about 10 pounds of force is required to insert engine into rocket. This is to prevent the engine from ejecting rearward rather than ejecting the parachute during the recovery phase of the burn.

12. COUNT DOWN to launch: Pack sufficient flame resistant wadding into rocket body to prevent damage to recovery system. Refer to cutaway drawing for location. Carefully fold and insert parachute in position shown. Slip upper body of rocket into lower body. The fit should be snug but not tight. If it becomes too loose, wrap masking tape around transition until the desired fit is obtained. Insert ignitor into engine as per directions with engine. Place rocket on launch stand. Clean micro clips and attach them to the ignitor as specified in the engine instructions. Clear the immediate area of spectators. Check for aircraft in the vicinity and alert persons in the area of the pending launch. Arm your launch panel. Start the countdown. 5, 4, 3, 2, 1, Ignition, Liftoff!!!!

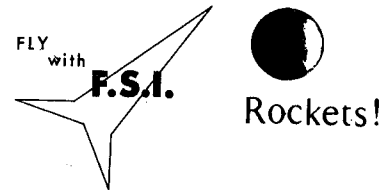
PARTS LIST

Qty	Description	Qty	Description
1	1.3 x 18" Body Tube	1	Parachute Canopy
1	1.6 x 18" Body Tube	8	Parachute Shroud Lines
1	Engine Holder/Snuffer tube Kit MRK 16F(1.13 x 9")	8	Parachute Tabs
3	Centering Rings(outside dia. 1.6)	1	Snap Swivel
1	Thrust Ring	1	Eye Screw
1	Nose Cone	1	Shock Cord
4	Fins	1	Shock Cord Mount
1	Transition Section	1	Decal
2	Launch Lugs	1	Flame Resistant Wadding

DETAIL A

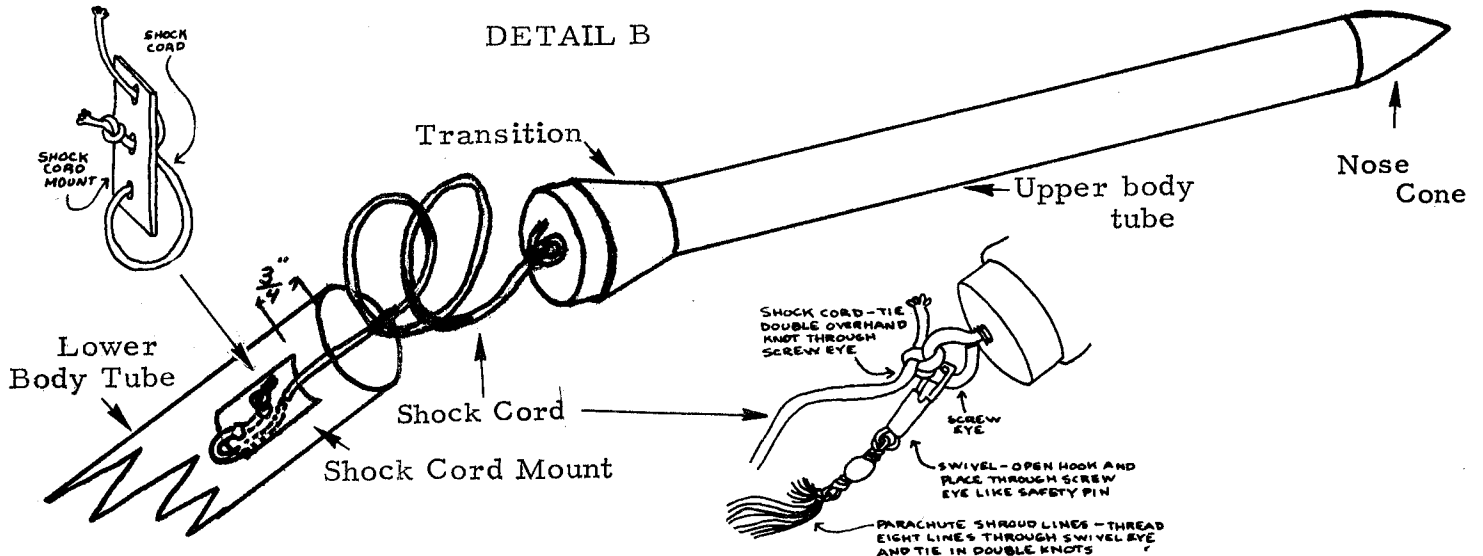


CAUTION: Do not fly your Model Rockets in high winds.



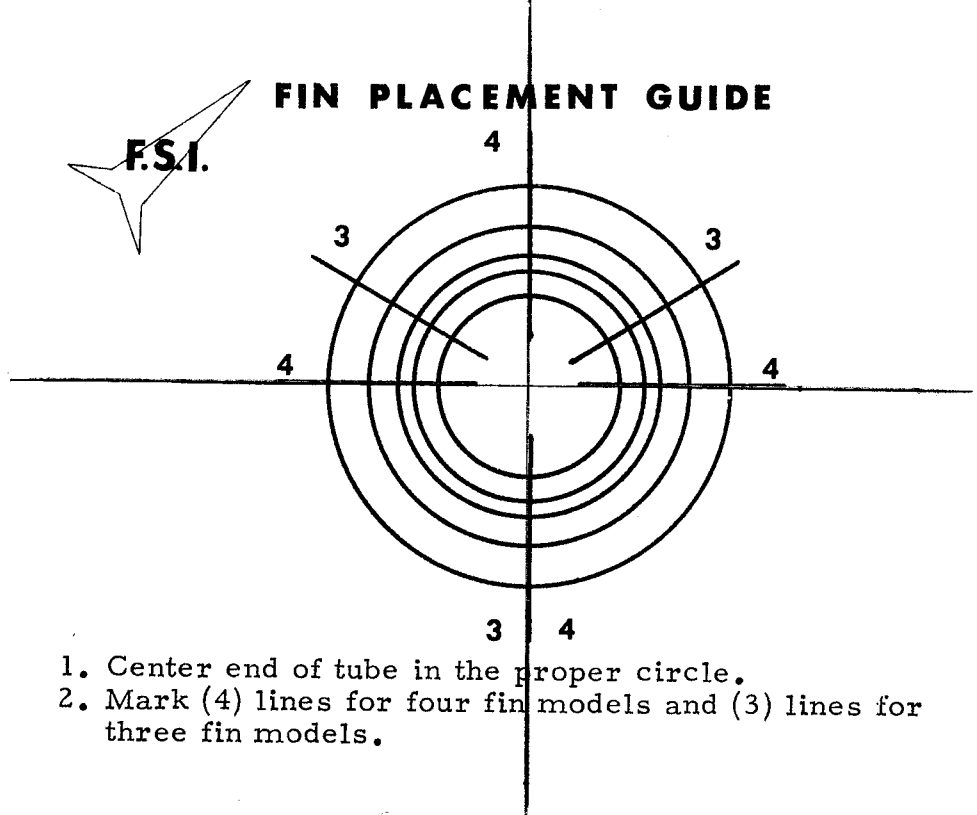
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DETAIL B



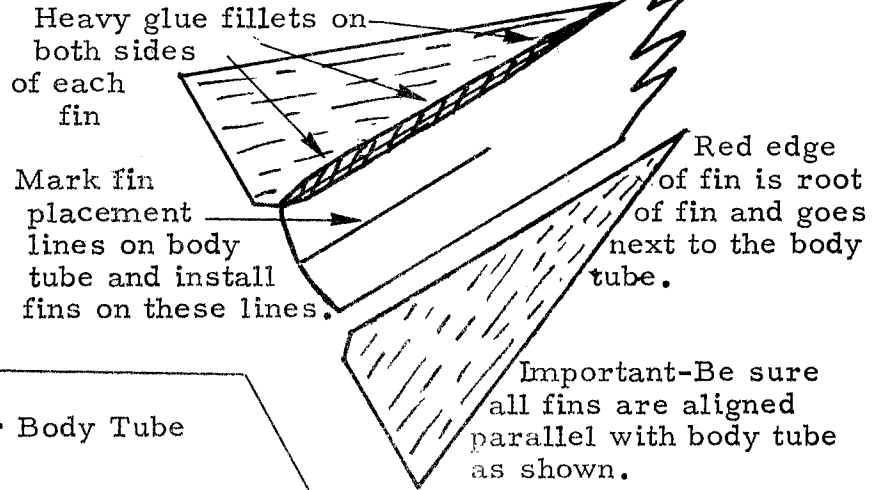


FIN PLACEMENT GUIDE



1. Center end of tube in the proper circle.
2. Mark (4) lines for four fin models and (3) lines for three fin models.

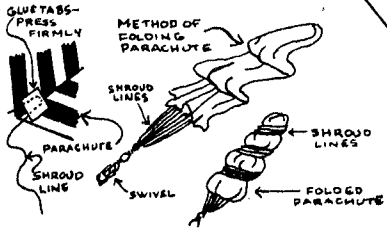
DETAIL C



Nose Cone

Upper Body Tube

DETAIL D



CUTAWAY DRAWING OF EOS

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Parachute size will depend on wind conditions. Normally a 12 to 14 inch chute is sufficient.

Transition Section

Eye Screw
Snap Swivel

Shock Cord

Parachute Shroud Lines

Shock Cord Mount

Launch Lug
(1" from top of tube)

Parachute

Centering Ring 1/8 inch from front of engine tube

Flame Resistant Wadding

Engine Holder/Snuffer Tube

Fins

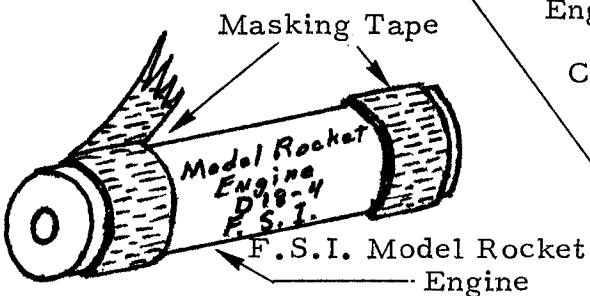
Centering Ring at mid point

Thrust Ring

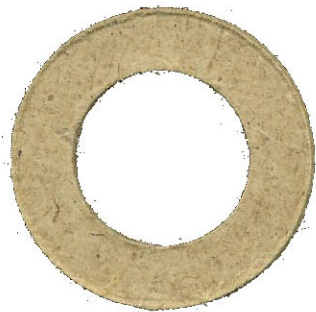
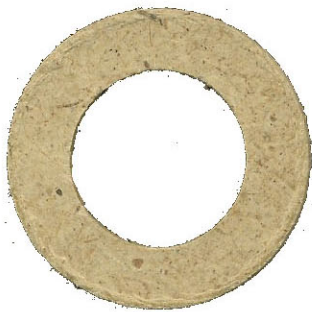
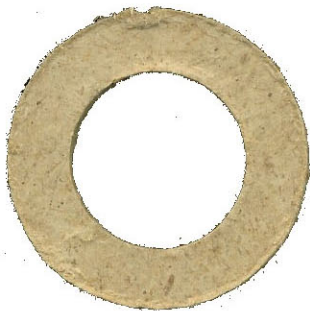
Launch Lug
(4" from bottom of tube approx.)

Centering Ring 1/8 inch from end of tube

DETAIL E



Wrap masking tape around engine as shown. Insert engine into rear of rocket with engine nozzle facing rearward. See Instruction No. 11 Push engine in until it is against thrust ring.



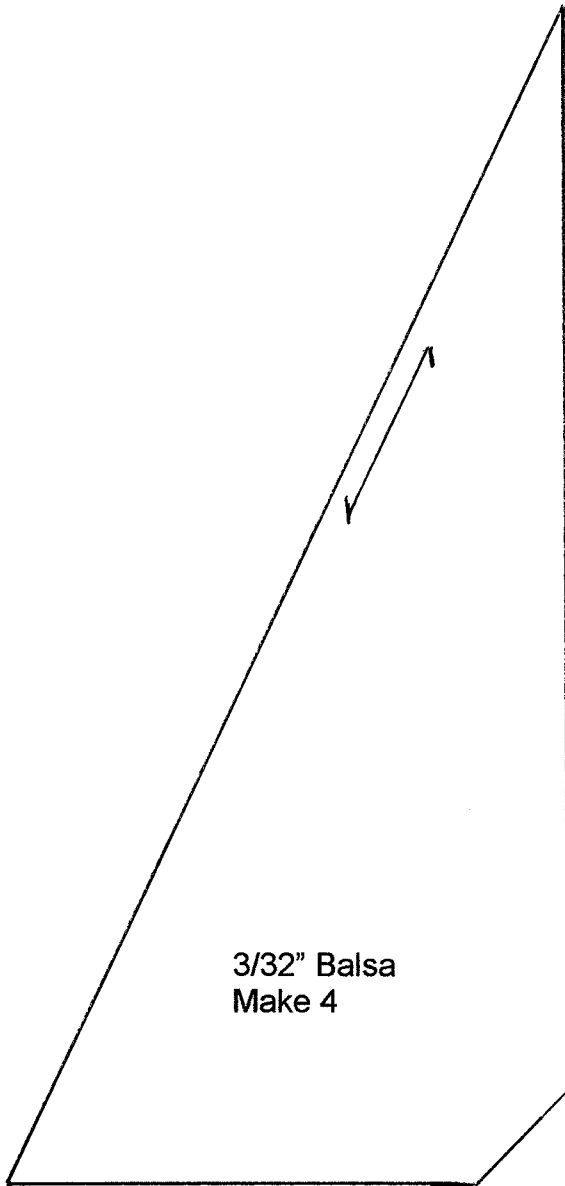
FSI MRK-16/16F

EOS

Overall Length: 42.0"
Diam. Above Trans: 1.34" (18" L)
Diam. Below Trans: 1.64" (18" L)
Nose Cone Length: 3.5"
Transition Length: 2.0"
Fins Trail Aft End: 0.5"

Above measurements taken from built EOS kit. Fin template was traced from built rocket and adjusted to match catalog measurements to eliminate error caused by sanding. Finished rocket is approx. $\frac{1}{2}$ " shorter than listed in catalog.

Catalog fin dimensions are
Total root edge length, tip to even with trailing edge: 155mm. Span of trailing edge from body tube: 75mm. The 'notch' at base root of fin is approx. 13mm x 13mm.



| < 1 inch > |

| < 1 inch > |

| < 1 inch > |