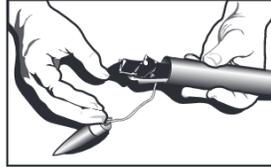
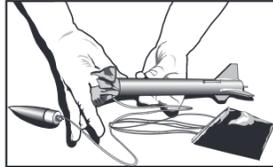
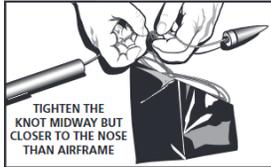


STEP 7

Attach the parachute to the shock cord at the very end of the shock cord. To do this, make a loop knot at the end of the cord. Take the chute shroud line loops in one hand and, with the other hand, take the chute and go around the shock cord, passing the chute through the shroud line loops.

When the chute is pulled through tightly it will form a knot.



STEP 8

Lightly sand plastic nose cone with fine sandpaper to remove molding seam line. Also sand airframe and fins to produce a smooth finish.

FINISH

Spray rocket with primer, sand and repeat until smooth finish is obtained. Spray rocket with paint of choice, let dry. Apply protective clear coat.

Attention!

This rocket is recommended for low to mid power rocket motors C-E impulse. Depending on your flying field and finished weight, this is a very versatile kit. Always check stability to ensure stable flight; the Center of Gravity (CG) must be forward of the Center of Pressure (CP) in flight ready condition.

Materials. I will use only lightweight, non-metal parts for the nose, body, and fins of my rocket.

Motors. I will use only certified, commercially-made model rocket motors, and will not tamper with these motors or use them for any purposes except those recommended by the manufacturer.

Ignition System. I will launch my rockets with an electrical launch system and electrical motor igniters. My launch system will have a safety interlock in series with the launch switch, and will use a launch switch that returns to the "off" position when released.

Misfires. If my rocket does not launch when I press the button of my electrical launch system, I will remove the launcher's safety interlock or disconnect its battery, and will wait 60 seconds after the last launch attempt before allowing anyone to approach the rocket.

Launch Safety. I will use a countdown before launch, and will ensure that everyone is paying attention and is a safe distance of at least 15 feet away when I launch rockets with D motors or smaller, and 30 feet when I launch larger rockets. If I am uncertain about the safety or stability of an untested rocket, I will check the stability before flight and will fly it only after warning spectators and clearing them away to a safe distance. When conducting a simultaneous launch of more than ten rockets I will observe a safe distance of 1.5 times the maximum expected altitude of any launched rocket.

Launcher. I will launch my rocket from a launch rod, tower, or rail that is pointed to within 30 degrees of the vertical to ensure that the rocket flies nearly straight up, and I will use a blast deflector to prevent the motor's exhaust from hitting the ground. To prevent accidental eye injury, I will place launchers so that the end of the launch rod is above eye level or will cap the end of the rod when it is not in use.

Size. My model rocket will not weigh more than 1,500 grams (53 ounces) at liftoff and will not contain more than 125 grams (4.4 ounces) of propellant or 320 N-sec (71.9 pound-seconds) of total impulse.

Flight Safety. I will not launch my rocket at targets, into clouds, or near airplanes, and will not put any flammable or explosive payload in my rocket.

Launch Site. I will launch my rocket outdoors, in an open area at least as large as shown in [the accompanying table](#), and in safe weather conditions with wind speeds no greater than 20 miles per hour. I will ensure that there is no dry grass close to the launch pad, and that the launch site does not present risk of grass fires.

Recovery System. I will use a recovery system such as a streamer or parachute in my rocket so that it returns safely and undamaged and can be flown again, and I will use only flame-resistant or fire-proof recovery system wadding in my rocket.

Recovery Safety. I will not attempt to recover my rocket from power lines, tall trees, or other dangerous places.

Revision of August, 2012.

Installed	Equivalent	Minimum
0.00-1.25	1/4A, 1/2A	50
1.26-2.50	A	100
2.51-5.00	B	200
5.01-10.00	C	400
10.01-20.00	D	500
20.01-40.00	E	1,000
40.01-80.00	F	1,000
80.01-160.00	G	1,000
160.01-320.00	Two Gs	1,500

LAUNCH SITE DIMENSIONS

When conducting a simultaneous launch of more than ten rockets I will observe a safe distance of 1.5 times the maximum expected altitude of any launched rocket.

Since Yank Aeronautics LLC dba LOC PRECISION cannot control the use of its products once sold, the buyer assumes all risks and liabilities there from, and accepts and uses LOC Precision products on these conditions.

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LOC 1.9" Photon

- 17" Slotted Booster
- Polypropylene Nose Cone
- 15" Parachute
- SCM1 Shock Cord Mount
- Kevlar Shock Cord
- 6" 24mm Motor Tube
- 1/8" Fin Set
- 2 1/8" Centering Rings
- 1/4" Launch Lug
- Rail guides

Due to the high thrust motors that can be flown in this rocket, epoxy is recommended!

Before beginning construction, read over instructions to become familiar with the proper construction steps. **TEST FIT ALL PARTS!**

STEP 1

Rough sand the motor tube to ensure proper adhesion OR remove the outer glassine wrap. Slide the aft ring onto the 24mm motor tube so the tube is 1/4" exposed from the ring. OR measure out where the FWD of the fin tab will be, some choose to sandwich their rings to the fin tabs. Insert forward ring (with hole) on other end of motor tube so 1/4" of the motor tube protrudes. **The aft fin tabs and slot are 55mm long. BE SURE to leave at LEAST 56mm between rings so fin tabs can be installed to motor tube in step 3!** Tack rings into place with epoxy, allow to cure. Epoxy fillet both sides where the ring meets the motor tube. Allow to cure.

Install screw eye into hole on the forward ring so the "eye" is forward (See photo in step 2). Make sure the eye is turned so it will not rub the inside of the air frame when installed. Glue Screw eye in place on both sides of the ring so it does not come loose.

*optional 2nd set of rings could be used for the forward fins providing extra strength if desired. Part number CR-190-114

STEP 2 Shock Cord Mount Instructions

1. Take the length of 2' Kevlar cord and at its center make a 1" long loop knot and pull it tight. Make



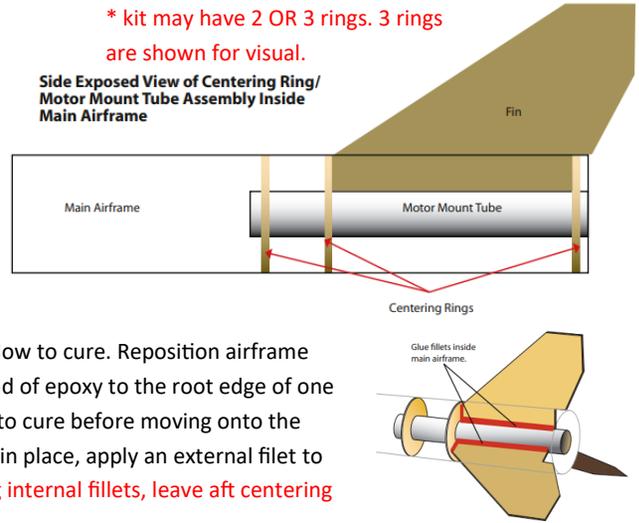
a knot a 1/4" away from the end of EACH of the two loose ends.

2. Glue the knot on the cord so it will not come loose or undone.



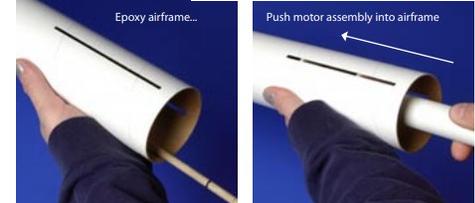
STEP 3

Slather epoxy in the AFT of the airframe between each fin slot. Insert motor mount assembly up the airframe. (Screw eye and shock cord mount forward). Slide all the way up the airframe until the MMT is flush or slightly recessed with the AFT of the airframe. Once cured apply a small layer to the AFT of the AFT ring. Allow to cure. Reposition airframe laying down. Apply a generous bead of epoxy to the root edge of one fin and insert in the fin slot. Allow to cure before moving onto the next fin. When all fins are epoxied in place, apply an external fillet to each fin to airframe joint. ***If doing internal fillets, leave aft centering ring off until fillets are applied**



STEP 4

Cut the launch lug in half at an angle, making them aerodynamic. Find the high point of the airframe between fins. Mark a straight perpendicular line up 1" from the AFT of the airframe. Epoxy one lug 2" up from the AFT of the airframe. Epoxy another at least 6" FWD. Allow to cure.



STEP 5

Take one end of the shock cord and pass it through the loop of the shock cord mount. Secure it with a double knot. Take the other end of the shock cord and pass it through the eyelet of the plastic nose cone and also secure it with a double knot approximately 1/3rd of the way to the other end. Place a SMALL drop of glue on both knots to keep them permanently secured.

STEP 6

Assemble the parachute by cutting the line into 3 equal lengths. Tie each end through 6 holes provided in the parachute cated around the canopy.

