

STEP 5 –Shock Cord Attachment

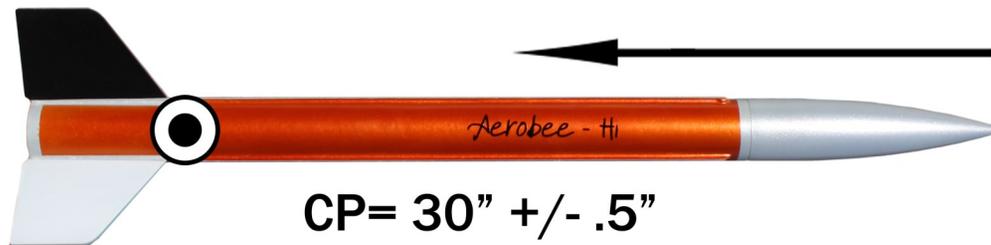
Take one end of the shock cord and pass it through the loop of the shock cord mount. Secure it with a double knot. Slide the chute protector blanket onto shock cord and slide down into booster. Take the other end of the shock cord and pass it through the eyelet of the plastic nose cone and also secure it with a double knot. Place a SMALL drop of glue on both knots to keep them permanently secured.

STEP 6 –Parachute Rig

Attach the parachute to the shock cord at a point about 1/3 of the length of the shock cord from the nose cone. To do this, 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. Fold and wrap the parachute and tuck into the blanket so the parachute is protected during ejection. Wadding may also be used in lieu of or with the blanket.

STEP 7 –Finishing

Lightly sand plastic nose cone with fine sandpaper to remove molding seam line. Also sand airframe and fins to produce a smooth finish. Paint with your choice of color! 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 E — H 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.

Since Yank Aeronautics LLC dba LOC PRECISION cannot control the use of it's 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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Model Rocket Safety Code

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 fireproof recovery system wadding in my rocket.

<u>Installed Total Impulse (N-sec)</u>	<u>Equivalent Motor Type</u>	<u>Minimum Site Dimensions (ft.)</u>
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



LOC 2.6"

AEROBEE—HI

- (1) BT-2.14x26" pre-slotted airframe
- (1) PNC-2.14 plastic nose cone
- (2) CR-2.14-29mm centering rings
- (1) Set of 6 fins
- (1) LP-24 Parachute
- (1) Fire Resistant Blanket
- (1) Kevlar Mount
- (1) LL-25 launch lug 1/4" x 6"
- (1) 9' 3/16" Tubular Nylon Shock cord
- (1) 29mm motor mount tube
- (1) Vinyl Decal

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!** Light sanding may be necessary to obtain proper fit.

STEP 1 -Centering Ring Installation.

Rough sand the motor tube to ensure proper adhesion OR remove the outer glassine wrap. Measure the slot length in the airframe. Mark the motor tube so that the rings will not interfere with the fin tabs when installed. Install Screw eye into forward centering ring.

Glue the centering ring with the screw eye 1/4" from one end of the 6" length of the 29mm motor mount tube – this will be the "Top" or "Forward" end of the assembly. Make sure the eye of the ring is forward. Glue the other centering ring 1/4" from the other end of the motor mount tube – this is the "Bottom" or "Aft" end where the motor will be installed later. Make sure both rings are perpendicular (at right angles to) the motor tube. Set aside to dry completely.



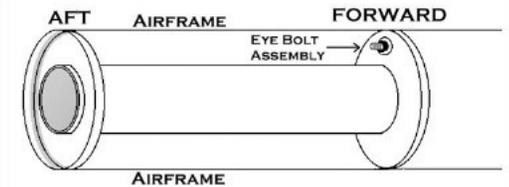
STEP 2 -Shock Cord Mount Instructions

LOC/PRECISION'S Shock Cord Mount is easy to make and install, yet is very strong! This mounting system makes shock cord attachment quick and easy. Follow instructions carefully!

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. Tie the two knotted loose ends of the Shock Cord Mount, into the screw eye.

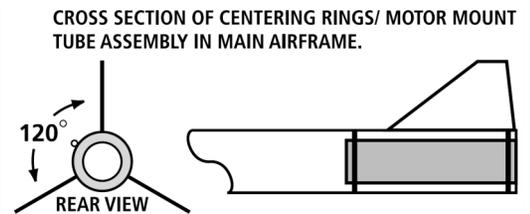
STEP 3 - Motor Tube Installation

Install motor tube assembly into airframe and glue into place. Slather epoxy in the AFT of the airframe between each fin slot. Insert motor mount assembly up the airframe. Slide all the way up the airframe until the MMT is flush or slightly recessed with the AFT of the airframe. Stand on end to cure. Once cured apply a small layer to the AFT of the AFT ring. Allow to cure.



STEP 4 –Fin Installation

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 file to each fin to airframe joint. Make certain to align fins as shown below. The air frame has been slotted so the conduits will line up straight with the aft fins. There may be warping of the conduits due to their long length. The slots will keep them straight.



STEP 5—Launch Lugs

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 10" from the AFT of the airframe. Epoxy one lug 2" up from the AFT of the airframe. Epoxy another at least 8" FWD. Allow to cure.