

HAballoc 300

Height: 60.25"

Weight: 51.84 oz. Diameter: 3.100"

Flights to over 8,400 ft.

Motor Suggestions:

Single Use: G40-7*, H55-10*,

I-65-14

Reloadable: J90-10, J135-L *38mm motors require MMA-4 adapter 29mm motors require MMA-3 adapter

Kit Features Include:

- Heavy Duty Airframe Tubing
- Pre-slotted Airframe
- 54mm Motor Tube
- Baffle
- Precision Cut Plywood Fins
- Precision Cut Plywood Centering Rings
- Extended Electronics Bay
- Plastic Nose Cone
- Nylon Parachute Recovery

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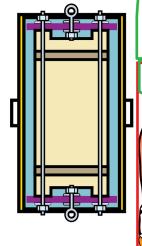


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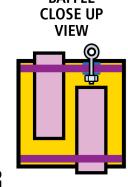
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Ebay with Electronics Sled **CLOSE UP** VIEW

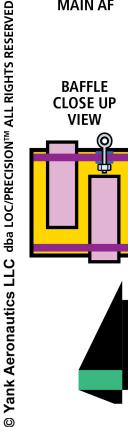


ATTACH **PL Tube** and **Ebay**

GLUE -**BAFFLE** 7" down from top of MAIN AF







PK-67 HyperLOC300 ASSEMBLY INSTRUCTIONS

PARTS LIST

1 Launch Lug LL-50 Nose Cone PNC-3.00
2 Shock Cords Slotted Airframe SBT-3.00-34"2 Nylon Parachutes LP-36 and LP-18 Motor Mount Tube MMT-2.14
Electronics Bay EB-3.00-6" Assy. 3 Centering Rings CR-3.00-2.14

Nose Cone PNC-3.00 Baffle/SCM Parts:
Slotted Airframe SBT-3.00-34"-4 1-Tube Coupler TC-3"
Motor Mount Tube MMT-2.14 2 End Plates
3 Centering Rings CR-3.00-2.14 1 Eyebolt
4 Plywood Fins 1 Nut
Payload Section 2 Washers

- Due to the high thrust motors that can be flown in this kit, it is strongly recommended that epoxy be used throughout its entire construction.
- Before beginning construction, read over assembly instructions to become familiar with the proper construction sequence. Check rear and side exposed views (shown at bottom of instructions) carefully for fin positions and motor mount/centering ring placement inside the main airframe.
- TEST FIT PARTS BEFORE BONDING TOGETHER WITH GLUE!!!!
 It may be necessary to lightly sand some parts to obtain a proper fit.
- The following items will be needed for the construction & finishing of this kit: 12" ruler, Modeling knife, Pen or pencil, Masking tape, Sanding sealer, Paint brushes (assorted sizes), Sandpaper (medium & fine), Primer and paint, Yellow Carpenter's Glue or Epoxy (5 or 15 minute).

Main Airframe Assembly Instructions

- Rough-up with course grit sandpaper the root edges of the fins, the outer diameter
 of the motor mount tube and the main airframe where epoxy is to be placed for
 better epoxy adhesion. The glassine layer can be completely removed from the
 motor mount tube for maximum adhesion.
- 2. Place ALL THREE main centering rings onto the main 54mm motor mount tube. Position the TWO outer main centering rings so that the main 54mm motor mount tube protrudes 1/8" beyond them and lightly epoxy in place and let dry. Position the MID-LOWER main centering ring 4-5/8" away from the bottom centering ring and lightly epoxy in place and let dry. USE THE ROOT EDGE OF ONE FIN FOR CHECKING THIS DISTANCE! The object is to sandwich the fins between these 2 rings for maximum epoxy surface area and increased strength.
- Check the completed centering ring/motor tube assembly inside the main airframe for fit. If necessary, lightly sand centering ring outer diameters.
- 4. Apply a continuous bead of epoxy approximately 12" into the rear of the main airframe assembly and slide the front motor mount up to the epoxy. Apply another continuous bead of epoxy behind the front centering ring approximately 5.5" into the rear of the main airframe so that once completely inserted the second ring contacts this bead and continue sliding the motor mount assembly forward until within 2" of its destination. Apply another bead of epoxy at ½" inside the aft end of the airframe tube and slide the motor mount assembly into its final position. Be careful to clean out any excess epoxy from the fin tab area. Set aside to cure in an upright position. Test fit the fins into the slots to be sure they fit properly before the epoxy cures.
- 5. Place epoxy on the fin root edge and position one fin directly into its slot and onto the main 54mm motor mount tube. Make sure that the fin root edge is completely parallel to the airframe and that the fin is perpendicular to its diameter. Place in a horizontal position while curing. When dry, repeat this procedure with the remaining fins. When all fins are attached, give the fin and main centering ring added epoxy fillets for maximum strength and let cure.
- Sand all fins smooth and round off the leading and trailing edges of them, using medium then fine sandpaper.

Baffle/Shock Cord Mount Assembly Instructions

- 1. Install Eyebolt into Baffle Centering Ring through hole provided.
- 2. Glue Exhaust Gas Tube in each plate leaving room for fillets.
- Glue Plates into 3" TC section, as shown, leaving approximately ¾ to 1" gap so that entry tube is directly over Eyebolt.

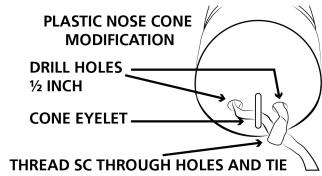
BAFFLE/SHOCK CORD MOUNT ASSEMBLY



- 4. Fillet all joints and allow to dry thoroughly.
- Tie one end of the shock Cord to the Eyebolt.
- 5. Using a long stick, apply glue to the main airframe from 7" to 9" and slide the BAFFLE/SHOCK CORD ASSEMBLY in to a depth of 7" from it's top.

Main Airframe Assembly Instructions, Continued

- 7. Sight in the high point (center of airframes' diameter) of the airframe between any two fins and from 1" up from the airframes' bottom edge, make a small pencil mark. From this mark, make two separate STRAIGHT lines 5" long. The first 5" line starts from the mark and the second line starts 14" from the mark. Cut the 2 launch lugs at an angle to reduce drag. Epoxy the two launch lugs directly on the two lines. Make sure that they are in a straight line to each other and parallel to the main airframe. Set aside to dry in a horizontal position a launch rod is useful for this step if you have one.
- 8. Give all fin and launch lug joints added epoxy fillets for maximum strength.
- Seal the launch lugs with sanding sealer using a brush. Sand lightly between coats to fill pores and obtain a smooth finish.
- The upper section of this rocket includes the Electronics Bay assembly, Payload extension and Nose cone.
- 11. Assemble the EB-3.00 electronics bay assembly using the instructions provided.
- 12. Lightly sand plastic nose cone with fine sandpaper to remove molding seam line.
- 13. When you are satisfied with the smooth sanded finish of this model, it is ready to prime and then paint in the color or colors of your choice.
- 14. When the paint is completely dry, tie one end of the "drogue" shock cord through the Baffle/Shock Cord Mount eyebolt and tie the other end to the eyebolt of the electronics bay.



15. To connect the nose cone, run the shock cord through the section of payload tube. Tie one end of the "main" shock cord to the nose cone mount and tie the other end to the opposite side of the EB-3.00 electronics bay eyebolt than was used for the main section. This end of the electronics bay assembly can be friction fit into the payload tube or secured with mechanical devices (such as screws or bolts -not provided) or epoxied permanently.

Note: If it is to be epoxied permanently, make certain the access wing nuts are protruding out of the end opposite the nose cone to insure easy access and remember that your arms will need to be long enough to fit ejection charges through the wall into the bay.

(We use screws because our hands are too big to get into the top end of the bay to put in ejection charges and change cords if necessary. This makes it easier to slide off the payload section when needed.)

- 16. The main parachute is attached to the shock cord about half way to two thirds away from the bolt eye of the payload section to the nosecone (you can also just attach it to the nosecone as an alternate). Using ALL the chutes' shroud line ends TIGHTLY tie a double knot around the shock cord. ALWAYS CHECK DOUBLE KNOT RIGHT BEFORE LAUNCHING!! Friction fit the nosecone to the payload using masking tape (a good alternate is to use shear pins (#4 or #6 nylon screws can be used for this or a thin styrene rod which should be put in a hole drilled into the nosecone through the payload tube).
- 17. The smaller drogue chute mounts between the main 34" section and the electronics bay about half way to two thirds of the way from the airframe.
- 18. Select a motor recommended for first flight. Because of the different motors available (with varying motor lengths), this kit uses no motor block. Instead, wrap 2" wide masking tape around the nozzle end of the motor to a diameter equal to that of the motor mount tube. This will keep the motor from pushing forward upon ignition. Wrap masking tape around the motor in two places until a snug fit is achieved inside the motor mount tube. This will prevent the motor from ejecting rearward upon ejection charge activation.
- 19. Always follow motor manufacturers' instructions for motor ignition and launch this vehicle on calm, windless days to insure safe recovery.
- NOTE: 54mm to 38mm and 54mm to 29mm MOTOR MOUNT ADAPTERS can be SPECIAL ORDERED FROM LOC.