

PK-67

TM

# HYPERLOC 300

**Height: 60.25"**  
**Weight: 51.84 oz.**  
**Diameter: 3.100"**

**Flights to over 8,400 ft.**

**Motor Suggestions:**

**HyperTEK® Hybrid I, J and K 54mm tanks**

**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
- Precision Cut Plywood Fins
- Precision Cut Plywood Centering Rings
- Extended Electronics Bay
- Bulkhead Plate Assembly
- Plastic Nose Cone
- Nylon Parachute Recovery

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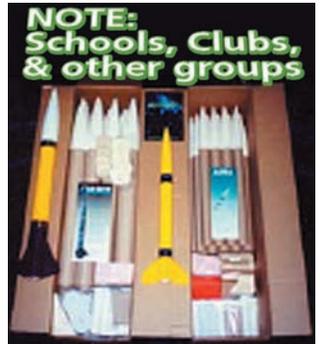


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THANK YOU FOR CHOOSING LOC/PRECISION!



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LOC/PRECISION MULTI-PACKS are now available for this and other LOC/PRECISION models. For more information on launching model rockets in your area contact the National Association of Rocketry (NAR) at [www.nar.org](http://www.nar.org) or the Tripoli Rocketry Association at [www.tripoli.org](http://www.tripoli.org)

### OTHER KITS AVAILABLE:



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# PK-67 HyperLOC300 ASSEMBLY INSTRUCTIONS

## PARTS LIST

Launch Lug LL-50	Nose Cone PNC-3.00
1 SCM Shock Cord Mount	Slotted Airframe SBT-3.00-34" -4
2 Nylon Elastic Shock Cords	Motor Mount Tube MMT-2.14
2 Nylon Parachutes LP-36 and LP-18	3 Centering Rings CR-3.00-2.14
Electronics Bay EB-3.00L-8" Assy.	4 Plywood Fins
1 Overflow Tube (1/4")	Payload Section 14"

- ◇ 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).

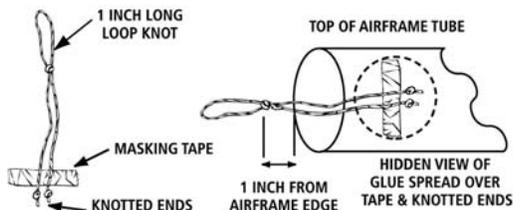
## Main Airframe Assembly Instructions

1. 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.
3. 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 1/2" 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.
6. The next 3 steps are to be used to accommodate the HyperTek motor system – If you will not be using these vented motors, you can omit steps 7, 8 and 9.
7. Make a mark 11" from the end of the motor mount tube along the airframe and drill the overflow tube hole using a 3/8" drill bit making sure to extend the hole from the outside airframe and into the motor mount tube to allow the Nitrous Oxide gas to vent to the atmosphere when the motor is full.
8. Epoxy the 1/4" launch lug through the airframe until it is just touching the inside of the motor mount tube and allow to cure.
9. Cut the 1/4" launch lug flush with the airframe and sand smooth. The inside of the motor mount will also need to be smooth. A piece of sandpaper glued to a dowel makes a good reamer for the inside of the motor tube.
10. Sand all fins smooth and round off the leading and trailing edges of them, using medium then fine sandpaper.

## 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 nylon braided 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. Cut a piece of masking tape 1/4" wide by 1 1/4" long. This is centered crosswise just ahead of the two knots.
3. Carefully place the two knotted loose ends of the Shock Cord Mount, with tape attached, inside the top of airframe tube so that the 1" long loop knot is protruding out about 1" from the airframe tube's edge. Using a small piece of wooden dowel, press the masking tape down firmly around the inside of the airframe tubing. The masking tape will keep the Shock Cord Mount in place while gluing.
4. Place a generous bead of epoxy over the knotted ends and length of masking tape. Spread the epoxy around until they are completely covered and place the airframe in a horizontal position to dry.  
REPEAT STEP 4 UNTIL A SMOOTH EPOXY LAYER IS ACHIEVED OVER THE MASKING TAPE AND KNOTTED ENDS.

## Main Airframe Assembly Instructions, Continued

11. 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.
12. Give all fin and launch lug joints added epoxy fillets for maximum strength.
13. Seal the launch lugs with sanding sealer using a brush. Sand lightly between coats to fill pores and obtain a smooth finish.
14. The upper section of this rocket includes the electronics bay assembly, 14" airframe extension and Nose cone.
15. Assemble the EB-3.00 electronics bay assembly using the instructions provided.
16. Lightly sand plastic nose cone with fine sandpaper to remove molding seam line.
17. 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.
18. When the paint is completely dry, tie one end of the "drogue" shock cord through the SCM (shock cord mount) of the main airframe section and tie the other end to the bolt eye of the electronics bay.
19. To connect the nose cone, run the shock cord through the 14" 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.)
20. 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).
21. 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.
22. 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.
23. Always follow motor manufacturers' instructions for motor ignition and launch this vehicle on calm, windless days to insure safe recovery.
24. NOTE: 54mm to 38mm and 54mm to 29mm MOTOR MOUNT ADAPTERS can be SPECIAL ORDERED FROM LOC.

CROSS SECTION OF CENTERING RINGS/ MOTOR MOUNT TUBE ASSEMBLY IN MAIN AIRFRAME.

