**PK-82**


# Big nuke™

**Height: 6'-0"**
**Weight: 6 lbs. 6 oz**
**Diameter: 5.54"**

**Kit Features Include:**

- **Heavy Duty Airframe Tubing**
- **Plywood Fins & Rings**
- **Plastic Nose Cone**
- **Parachute Recovery**

*** Optional Electronics Bay #EB-5.38 Available from your dealer (not included)**

***** This kit is recommended for those with previous model rocket building experience.**

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PK-82 # Big Nuke™

# Assembly Instructions

Specs: Weight 6.5 lbs. Length 6'
Diameter 5.54" 54mm Motor Mount

PARTS LIST:
1 main 54mm motor mount tube
1 payload section
1 bulkhead plate assembly
1 main airframe
1 shock cord mount centering ring
1 shock cord
2 main centering rings
1 plastic nose cone
1 shock cord mount hardware set
1 parachute
1 fin set
2 launch lugs
1 fin guide

An optional Electronics Bay is available for this kit. Part # EB-5.38

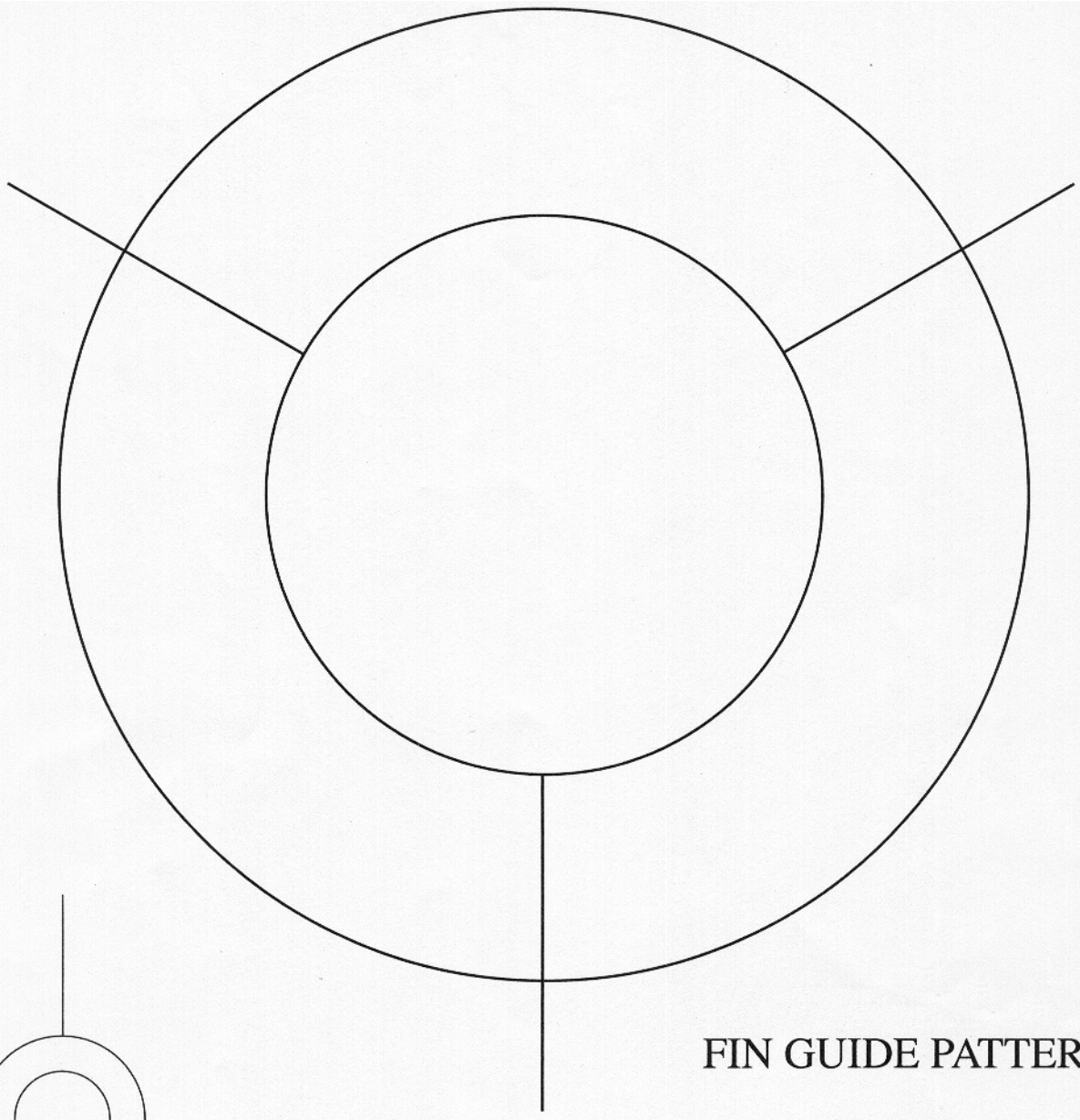
* DUE TO THE HIGH THRUST MOTORS THAT CAN BE USED IN THIS KIT, IT IS STRONGLY RECOMMENDED THAT EPOXY BE USED THROUGHOUT ITS ENTIRE CONSTRUCTION!

* Before beginning construction, read over assembly instructions to familiarize yourself with the proper construction sequence. Check side exposed view (shown on fin guide pattern) carefully for fin position and motor mount/centering ring placement inside main airframe.

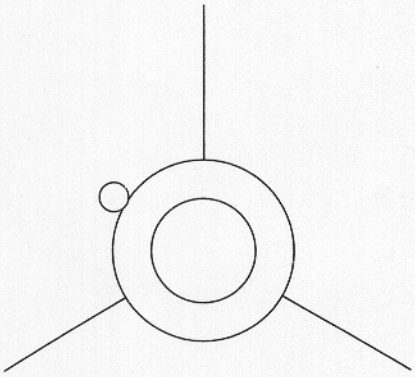
* TEST FIT PARTS BEFORE BONDING TOGETHER WITH EPOXY!!
It may be necessary to lightly sand some parts to obtain a proper fit.

* The following items will be needed for the construction and finishing of this kit: 5 or 15 minute epoxy, 12" ruler, Sandpaper (course, medium and fine), Sanding sealer, Primer and paint, Paint brushes (assorted sizes), Modeling knife, Pen or pencil, Masking tape.

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 mating surfaces of the motor mount tube for maximum adhesion.
2. Center the main 54 mm motor mount tube directly on the fin guide pattern. Mark the three equally spaced lines at its bottom edge. From these three marks, make three STRAIGHT lines up 15.5" long.
3. Place ALL THREE main centering rings onto the main motor mount tube. Position the TWO outer main centering rings so that the motor mount tube protrudes 1/8" beyond them and lightly epoxy in place and let dry. The "top" or forward centering ring has the 3/8" hole for mounting the shock cord hardware. Position the MID-LOWER main centering ring 15 1/8" 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!
4. Place one of the flat washers on top of the shock cord mounting hole in the "top" centering ring and push the threaded portion of the eye bolt through it. From the bottom of this centering ring, tightly secure the eye bolt using the remaining flat washer and nut. Epoxy both sides of the mount bolt and let dry..
5. Check the completed centering ring/motor tube assembly inside the main airframe for fit. If necessary, lightly sand centering ring outer diameters.
6. Sand all 3 fins smooth and round off the leading and trailing edges of them, using medium then fine sandpaper.
7. Place epoxy on the fin root edge and position the fin directly on the right edge of one of the fin lines drawn on the main motor mount tube. Make sure that the fin root edge is completely parallel to the fin guide line and straight up from the motor mount tube. Place in a horizontal position while drying. When dry, repeat this procedure with the remaining fins. When all fins are attached, give fin, main centering ring, and motor mount tube joints added epoxy fillets for maximum strength and let dry.
8. The main airframe fin slots must be extended and widened for this kit. Mark three equally spaced lines STRAIGHT lines up 15.5" long from the bottom edge of each slot. Using a modeling knife, carefully cut the fin slots out in the main airframe 3/16" wide and 15.5" long. Extend these slots to the bottom end of the airframe tube to allow the motor/fin assembly to slide into place.
9. Apply a large, continuous bead of SLOW CURE epoxy around the inside of the main airframe, 20" up from its slotted end. Take the motor mount/fin assembly and push it straight up into the epoxied end of the airframe lining up the fins towards the fin slots. When the middle and then bottom main centering rings come close to the main airframes' bottom edge, place epoxy on the centering ring outer faces and then continue pushing upward until the bottom end of the motor mount tube is flush with the airframes' bottom edge. Set in upright position to dry, with a tight fitting rubber band around the bottom end of the main airframe. When dry, turn assembly upside down and give exposed bottom centering ring a light layer of epoxy for additional strength. Set aside to dry.
10. Sight in the high point (center of airframes' diameter) of the airframe between any two fins and from 5" 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 20" 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.
11. Give all fin and launch lug joints added epoxy fillets for maximum strength.
12. Note: If using the optional electronics bay assembly, skip this step and follow the instructions provided with the assembly. Assemble bulkhead plate assembly with added reinforcement plate per instructions and let dry. For additional coupler strength, apply a light, continuous bead of epoxy around the inside of the coupler and let dry. Apply a continuous bead of epoxy around the inside of one end of the payload section tube, 1" in from its edge. Push the bulkhead assembly (open coupler end first) straight up into the epoxied payload section tube, about 1/3 the couplers' length. When the epoxy starts to cure, set the completed payload section into the top of the main airframe to achieve correct alignment and let dry.
13. Seal the launch lugs with sanding sealer using a brush. Sand lightly between coats to fill pores and obtain a smooth finish.
14. Lightly sand plastic nose cone with fine sandpaper to remove molding seam line.
15. 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.
16. When the paint is completely dry, pass one end of the shock cord through the eyebolt of the payload section and pass the other end through its loop sliding the complete length through to form a strong, tight loop attachment. Attach a quick link through the other end of the cord and attach it to the bolt eye of the main section. The quick link nut is threaded to open up and attaches to the shock cord mount bolt. Secure in place by tightening the nut. This method of shock cord attachment provides easy shock cord access plus convenient transportation breakdown.
17. The parachute is attached to the shock cord 3" away from the bolt eye of the payload section. Using ALL the chutes' shroud line ends TIGHTLY tie a double knot around the shock cord. ALWAYS CHECK DOUBLE KNOT RIGHT BEFORE LAUNCHING!!
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. Because of the close proximity of the shock cord by the top of the motor mount tube, it is strongly recommended that the motor mount tube be filled loosely with recovery wadding IN ADDITION to the wadding used to protect the shock cord and chute from the hot ejection charge gases.
20. Always follow motor manufacturers' instructions for motor ignition and launch this vehicle on calm, windless days to insure safe recovery.
21. NOTE: 54 mm to 38 mm MOTOR MOUNT ADAPTERS can be SPECIAL ORDERED FROM LOC.

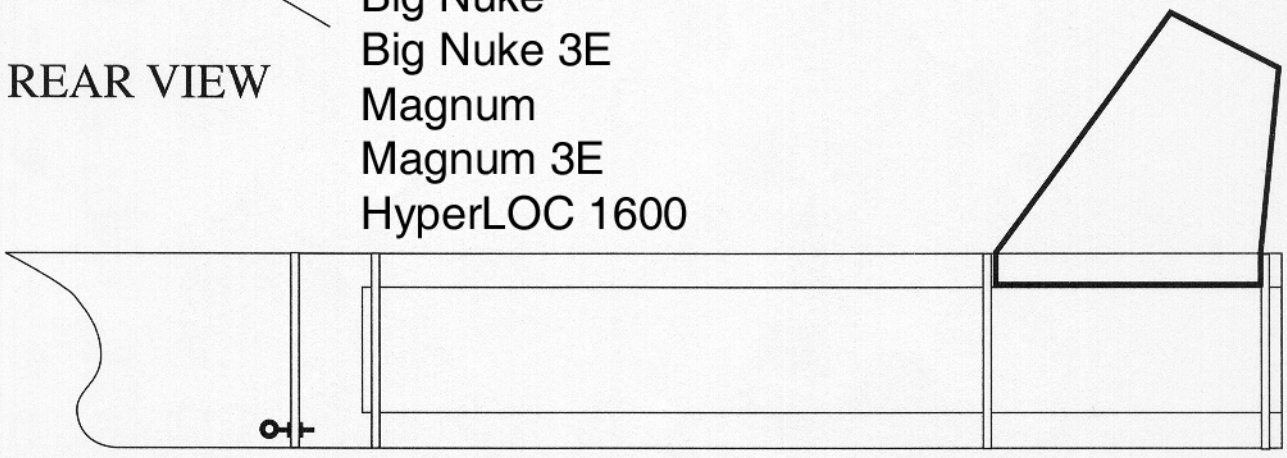


FIN GUIDE PATTERN



REAR VIEW

5.38" Diameter 3 Fin Guide Pattern
Big Nuke
Big Nuke 3E
Magnum
Magnum 3E
HyperLOC 1600



EXPOSED SIDE VIEW OF CENTERING RING/MOTOR MOUNT TUBE ASSEMBLY AND FIN PLACEMENT