PK-17

Mano-Magg

Height: 19" Weight: 10oz Diameter: 2.5"

Motor Suggestions:

D - F

24mm motors require the MMA-1 Adapter.

Flights from 300 to 1,500 ft.

Kit Features Include:

- Plastic Nose Cone
- Slotted Airframe Tubing
- Plywood Fins
- Centering Rings
- Nose Cone Bulkhead
- 29mm Motor Mount
- 14" Parachute
- Shock Cord
- Launch Lug



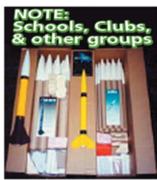


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LOC/PRECISION MULTI-PACKS are now available for this and other LOC/PRECISION models. For more information on launching model rockets in your area contact the National Association of Rocketry (NAR) at www.nar.org or the Tripoli Rocketry Association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

OTHER KITS AVAILABLE:





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Parts List

- 2.5" x 10" Slotted Airframe
- 1 29mm x 6" Motor Tube
- 1 Plastic Nose Cone
- Nose Cone Bulkhead
- Eyebolt
- 2 1/8" x 29mm Centering Rings
- SC250
- SCM
- 14" Parachute
- 1/4" Launch Lungs
- Fin Set

PK-17 Nano Magg - ASSEMBLY INSTRUCTIONS

- 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 EPOXY!!!!

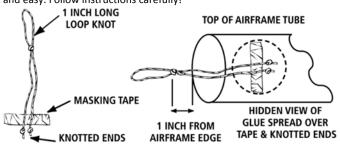
 It may be necessary to lightly sand some parts to obtain a proper fit.

Motor Tube Assembly

- 1. Using fine sandpaper, sand the outside of the motor mount for tube for better epoxy adhesion.
- Slide aft centering ring onto motor tube approximately 3/8" from the end of the motor tube. Take forward ring and place 5" from aft of motor tube. Ensure rings are perpendicular to motor tube and tack into place with epoxy.
- When cured, secure each ring onto motor tube by making epoxy fillets where the ring meets the motor tube on each side. Allow to cure.
- **4.** Slather epoxy from aft of booster, forward of fin slots (approximately 5" or so from aft) the entire internal diameter. This will adhere the forward ring into place.
- Insert motor mount assembly into the aft end of the booster section ensuring the aft ring does not protrude from the aft of the airframe or interfere with the fin slots.
- **6.** Apply liberal amount of epoxy to the aft ring where the ring meets the airframe. Allow to cure.
- 7. Apply epoxy to forward ring from forward end of airframe to ensure a solid bond to airframe.

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!



 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.

Nose Cone Assembly

Nose cone has been cut to allow bulkhead to be epoxied internally.

- 1. CAREFULLY pour some rubbing alcohol down into the nosecone.
- 2. Slosh it around gently for 20 seconds and pour out. This will clean the inside of the nose cone for better epoxy adhesion. LET DRY!!!
- 3. Secure eye screw into bulkhead plate and epoxy in place.
- 4. Attach shock cord to screw eye as it may be difficult to do after it's secured into place.
- 5. Securely set nose cone upside down so when the bulkhead is placed it will drop into center of nose cone.
- 6. Use a generous amount of epoxy where the bulkhead meets the sides of the nose cone.

PLEASE NOTE: Depending on building techniques and or amount adhesive material used this can change the center of gravity and change the performance and safety level of this rocket. Please ensure your rocket is stable prior to flight.

Main Airframe Assembly Instructions

- **1.** Using fine sandpaper, sand the outside of the main airframe and launch lug for better epoxy adhesion.
- **2.** Sand all fins smooth and round off the leading and trailing edges of them using medium, then fine sandpaper.
- **3.** Test fit the fin tabs (which protrude out from the fin's root edge) into the airframe's fin slots. Sand the tab edge that will mate to the motor mount tube if necessary to obtain a good flush fit.
- **4.** Once all parts fit to your liking, apply a liberal amount of epoxy to the fin tab area and along the edge mating with the airframe and position fin perpendicular to the airframe set aside to cure. Keep the airframe in a horizontal position while the epoxy sets up. Make sure that the fin is straight up from the airframe tube and against the slot's bottom edge. Repeat with each of the remaining fins. When fins are epoxied into place at the root edge, apply epoxy fillets joining the fin to the exterior of the airframe. This will add strength and create a solid joint.
- **5.** Seal fins and launch lug with sanding sealer using a brush. Sand lightly between coats to fill pores and obtain a smooth finish. Lightly sand plastic nose cone with fine sandpaper to remove molding seam line. At this time, remove any plastic flash that was molded into the nose cone eyelet. This is necessary for shock cord attachment.
- **6.** When you are satisfied with the smooth sanded finish of your model, it is ready to prime and then paint in the color or colors of your choice.
- 7. When the paint is completely dry, 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 nose cone. Place a SMALL drop of epoxy on both knots to keep them permanently secured.
- 8. Select a motor for first flight.
- 9. Always follow motor manufacturer guidelines and rules!

PLEASE use simulation software to ensure the motors you choose will make a stable and safe flight!

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