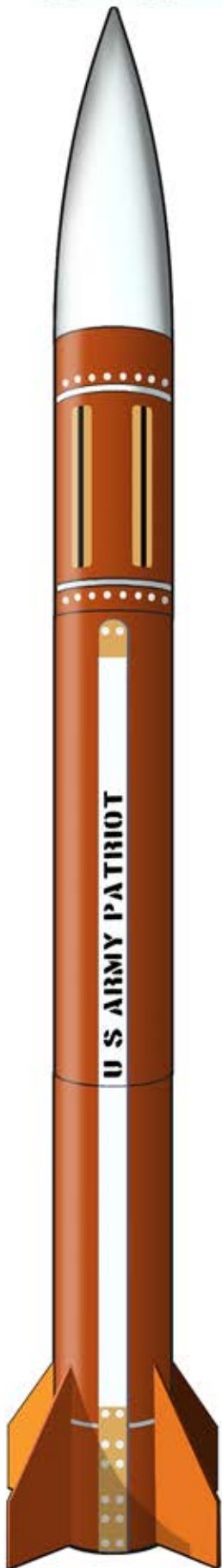


YPAT25

U S ARMY PATRIOT

Height: 34"
Weight: 15oz
Diameter: 2.63"



Kit Features Include:

- Slotted Airframe Tubing
- Payload Section
- CNC Machined Plywood Fins
- 1/4" Centering Rings
- 29mm Motor Mount
- 18" Parachute
- Elastic Shock Cord
- Launch Lugs

VISIT WWW.LOCPRECISION.COM

- Assembly Instructions for all kits
- KITS & ACCESSORIES
- VINYL DECALS
- UPDATES



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NOTE:
Schools, Clubs,
& other groups



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 www.tripoli.org

OTHER KITS AVAILABLE:

PK-1 Aura



PK-3 Weasel



PK-4 Lil' Nuke



PK-5 Nuke Pro Maxx



PK-7 StarFighter-152



PK-8 Legacy



PK-12 Onyx



PK-20 Viper III



PK-16 Graduator



PK-25 IRIS Atlantic



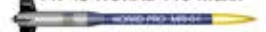
PK-27 Black Brant CARDE



PK-48 LOC-IV



PK-45 NORAD Pro Maxx



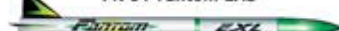
PK-50 Phantom



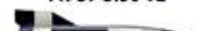
PK-46 Bullet



PK-51 Phantom EXL



PK-57 3.90 V2



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Parts List

- **2.63" Airframe, 1-15", 1-10"**
- **1 – 29mm Motor Tube**
- **1 Plastic Nose Cone**
- **1 – Coupler Tube**
- **2 – 2.63" x 29mm Centering Rings**
- **1 – 1/8" Bulkhead**
- **1 – SC350 9' Elastic Shock Cord**
- **18" Parachute**
- **1/4" Launch Lugs**
- **2 Screw Eyes**
- **Fin Set**

YPAT25 - PATRIOT 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. Pick an end of the motor tube, either side will work. Measure 5" from end and make a pencil mark. From the same end we just measured, make a 2nd mark 3/8". The end we measure from will be the aft end of the motor tube.
2. Slide centering ring with drilled hole onto motor tube so that the aft side of the ring is at the 5" mark. Take the second ring and slide the forward end of the aft ring is at the 3/8" mark. This should leave 1/8" of motor tube sticking out of the aft side.
3. Test fit the motor mount assembly in the motor tube. Ensure the rings don't interfere with the fin slots. Also ensure the aft ring/motor tube does not protrude past the aft of the airframe. Remove and tack rings into place.
4. Attach screw eye to the forward ring and epoxy into place.
5. When cured, secure forward with eyebolt ring into place on motor tube, allow to cure.
6. 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.
7. Apply liberal amount of epoxy to the middle centering ring affixing the ring to the booster airframe.
8. If doing internal fillets, apply them before adhering the aft ring into place. When finished, secure aft ring into aft of airframe and set onto fin tabs. Secure into place with adhesive.
9. Epoxy forward ring into place with liberal amounts of epoxy bonding ring to motor tube, ring to airframe.

Main Airframe Assembly Instructions

1. Using fine sandpaper, sand the outside of the main airframe, motor mount tube, 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

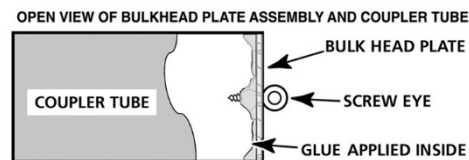
fin perpendicular to the airframe – set aside to cure. Keep the airframe in a horizontal position while the epoxy sets up. Make sure that the fin is straight up from the airframe tube and against the slot's bottom edge. Repeat with each of the remaining fins.

5. Slather epoxy on the forward 3" of exposed coupler and slide 18" airframe section down onto the booster section ensuring a tight fit. Wipe away excess epoxy from tube joint. Allow to cure.

Bulkhead Plate Assembly Instructions

1. Screw in the threaded portion of the eye bolt straight into the center hole of the bulkhead plate. Check for alignment. Place a generous bead of epoxy around the threaded portion of the screw eye sticking out from atop the bulkhead plate. Keep assembly propped up while drying so eye bolt alignment is not disturbed.

2. When dry, check fit of bulkhead plate assembly into either end of coupler. It may be necessary to sand the inside edge of the coupler and the outside edge of the bulkhead plate assembly to obtain a smooth fit. When this is done, place a large continuous bead of glue around the inside of the coupler's edge. Carefully, push the bulkhead plate assembly straight into the coupler so that the bulkhead plate assembly is even with the edge of the coupler. Set the entire assembly upright immediately, making sure it is not disturbed while drying.



3. For MAXIMUM STRENGTH, when dry, place another layer of epoxy around the inside of the bulkhead plate and screw eye thread.

Payload Assembly Instructions

1. Epoxy 1/2 of the length the Bulkhead Assembly into the payload section.
2. Secure Nosecone to Payload section for a tight friction fit. Or secure permanently if desired.
3. Put end of tubular nylon through slit cut in the Nomex Chute Protector and slid though. This will be the first item packed into the booster and will protect recovery items from ejection gasses and flames. 2 quick links have been supplied for you to attach payload and booster together. Setup your recovery system as you desire.

Main Airframe Assembly Instructions, Continued

4. 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.
5. 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.
6. 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 payload section and also secure it with a double knot. Place a SMALL drop of epoxy on both knots to keep them permanently secured.
7. Select a motor for first flight.
8. Always follow motor manufacturer guidelines and rules!

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