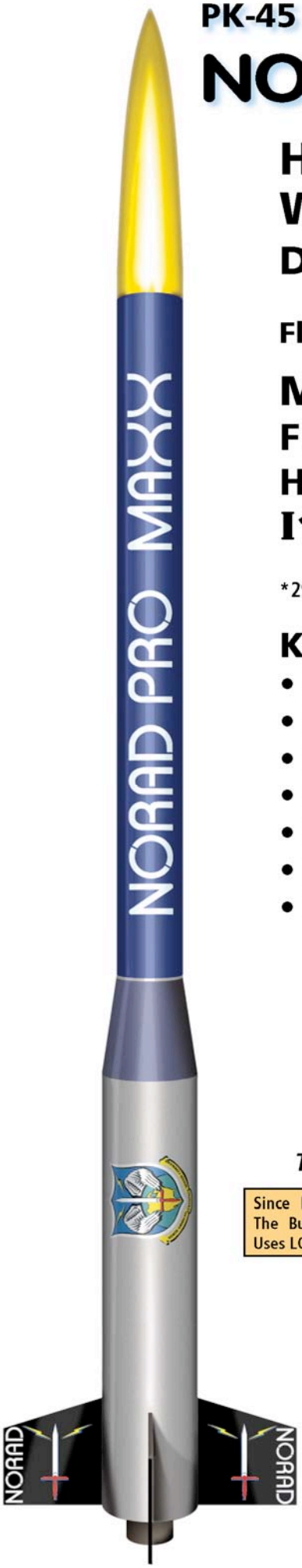
PK-45

NORAD Pro Maxx™



Height: 46.25”
Weight: 24 oz.
Diameter: 3.100” to 2.260”

Flights to over 7,200 ft.

Motor Suggestions:
F50-6*, G40-7*, G80-7*, H45, H123*, H128, I161, I211, J285, J350

*29mm motors to be used with 29mm MMA-2 Adapter

Kit Features Include:
- Heavy Duty Airframe Tubing
- Precision Cut Plywood Fins & Rings
- Pre-slotted Airframe
- Plastic Nose Cone
- Plastic Airframe Reducer
- Payload Section
- Nylon Parachute Recovery

Download the FREE graphic at
www.locprecision.com

A FULL COLOR CATALOG DISPLAYING OUR
36+ MID AND HIGH POWER KITS
IS ALSO AVAILABLE - ASK YOUR DEALER
OR CALL LOC/PRECISION TODAY!

THANK YOU FOR CHOOSING LOC/PRECISION!

Since LOC/PRECISION Cannot Control The Use Of Its Products Once Sold, The Buyer Assumes All Risks And Liabilities There From, And Accepts And Uses LOC/PRECISION Products On These Conditions.

LOC/PRECISION™ ADVANCED ROCKETRY KITS AND COMPONENTS

PO Box 470396, Broadview Heights, Ohio, 44147 USA Tel: 440-546-0413
Fax: 440-546-7942 www.locprecision.com

876957001199

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-45 **NORAD PRO MAXX** ASSEMBLY INSTRUCTIONS

PARTS LIST

Launch Lug LL-50
Shock Cord Mount
Nylon Elastic Shock Cord
Nylon Parachute LP-36
Payload Extension PL-2.14-10"
4 Plywood Fins
Nose Cone PNC-2.14
Slotted Airframe SBT-3.00-14"-4S
Motor Mount Tube MMT-1.52-20
2 Centering Rings CR-3.00-1.52
1 Centering Rings CR-2.14-1.52
Bulkhead Plate Assembly BA-2.14
1 Airframe Reducer AR-3.00-2.14

◊ 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.

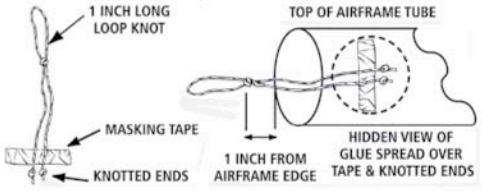
◊ The following items will be needed for the construction & finishing of this kit:
12" ruler, Modeling knife, Pen or pencil, Masking tape, Sanding sealer, Paint brushes (assorted sizes), Sandpaper (medium & fine), Primer and paint, Yellow Carpenter's Glue, Epoxy (5 or 15 minute), CA Glue (cyanacrilate).

Main Airframe Assembly Instructions

1. Mark the Motor Mount Tube at 1-1/8" (30mm) and 10-1/2" (267mm) from the forward end. Note on drawing above the size and position of each centering ring.
2. Epoxy the Forward Centering Ring 1-1/8" from the end of the 38mm Motor Mount Tube. When cured, give both sides of the joint formed a good fillet coat of epoxy to insure maximum strength. Do one side at a time, letting it set-up before starting on the other side.
3. Rough up the exterior mating surfaces of the Airframe Reducer with course sand paper so that the epoxy will have a good gripping surface.
4. Slide the Airframe Reducer over the Motor Mount Tube. Do not epoxy at this time.
5. Epoxy the Mid-Ship Centering Ring at the 10-1/2" (267mm) mark and fillet it like the Forward Centering Ring. Again, do not epoxy the Airframe Reducer at this time. It will be loose between the 2 completed centering rings.
6. Dry mount the Aft Centering Ring to the Aft end of the motor mount tube. Do not epoxy at this time.
7. Temporarily secure the Forward Centering Ring to the front shoulder of the Airframe Reducer with masking tape so that it aids in the alignment of the next step.
8. Slide the slotted 3" (75mm) Airframe tube over the Aft Centering Ring and over the Mid-Ship Centering Ring with slots AFT. With a stick extend a bead of epoxy into the Airframe tube and onto the shoulder of the Airframe Reducer. Continue sliding the Airframe onto the Reducer until it seats. Slide this new assembly up to the Forward Centering Ring and secure the alignment with a wrap of masking tape. Keep the forward end of the assembly pointed up until the epoxy sets.
9. Remove the tape that aligned the Forward Centering Ring to the Airframe Reducer.
10. With a Stick, place a bead of epoxy about 1" (25mm) into the 12" by 54mm Airframe Tube and onto the shoulder of the Airframe Reducer. Slide the Airframe and Forward Centering Ring onto the Airframe Reducer until Seated. Stand upright to cure.

Shock Cord Mount Instructions

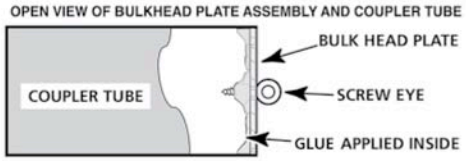
This mounting system makes shock cord attachment quick and easy. Follow instructions carefully!



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 masingtape 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.

Bulkhead Plate Assembly Instructions

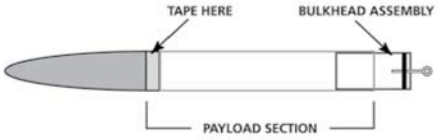
1. Screw in the threaded portion of the screw eye straight into the center hole of the bulkhead plate. Check for alignment. Place a generous bead of glue around the threaded portion of the screw eye sticking out from atop the bulkhead plate. Keep assembly propped up while drying so screw eye alignment 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 glue around the inside of the bulkhead plate and screw eye thread.

Payload Assembly Instructions

1. Glue 1/2 of the length the Bulkhead Assembly into the payload section as shown. Be sure to seat the eyebolt deep into the wood ring and fillet the backside of this well with glue. The force of motor ejection can be enough to pull out an eyebolt if it is not well seated.
2. Secure Nosecone to Payload section with masking tape for a tight friction fit. (Note: as an alternate, small screws can be used here if desired –not included with kit).
3. Attach Shock cord to the eyebolt in the completed payload setion and to the Shock Cord Mount located in the main airframe.



4. Attach Parachute to the shock cord approximately 3' from the payload section.

Main Airframe Assembly Instructions, Continued

11. Remove the Aft Centering ring. Sand all fins smooth and round off the leading and trailing edges of them using medium then fine sand paper. Test fit the fins into the airframe's fin slots. Sand fins if necessary for proper fit. Place epoxy on one of the fin's root edge and place the fin in the slot. 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. There will be a gap to fill between the front edge and the airframe. When set, repeat the procedure with the remaining fins.
12. Internal fillets can now be applied to the joints between the motor mount tube and the fins and between the fins and the inner wall of the Airframe if desired.
13. Epoxy the Aft Centering Ring in place.
14. Sight in the high point (center of the airframe's diameter) of the airframe between any 2 fins and from 1" up from the airframe's bottom edge, make a small pencil mark. From this mark, make a straight line up 6" long. Epoxy the launch lug directly on this line, making sure that it is parallel to the airframe. Set aside in a horizontal position to dry.Lightly sand seam line of plastic nose cone and reducer with fine sandpaper.
15. Apply a continuous bead of epoxy around the inside of the sub airframe 1/2" in from one of it's ends. Push the airframe reducer all the way up into this end. Dry in an upright position.
16. Give all fin and launch lug joints added epoxy fillets for maximum strength. Seal fins and launch lug with sanding sealer using a brush. Sand lightly between coats to fill pores and obtain a smooth finish. 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.
17. When 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 airframe reducer and also secure it with a double knot. Using a toothpick, place a TINY drop of epoxy on both knots to keep them permanently secured.
18. Attach the parachute to the shock cord about 3 feet away from the eyelet of the airframe reducer. To do this, take all the chute shroud line loop ends in one hand, and with the other hand, take the chute and go around the shock cord, passing the chute through the shroud line loops. When the chute is pulled through tightly, it will form a knot.
19. Select a motor for first flight. Because of all the different motor combinations available (with varying motor lengths), this kit uses no motor blocks. Instead, wrap 1/2" wide masking tape around the nozzle end of each motor to a diameter equal to that of the motor mount tube. This will keep the motor from pushing forward upon ignition. Friction fit the motor in place by wrapping masking tape around the motor in two places for a snug fit in the motor mount tube. This will prevent the motor from ejecting rearward upon activation of the ejection charge.
20. Remember to use enough recovery wadding to protect the chute and shock cord from the hot ejection gases.
21. Always follow motor manufacturer's instructions for motor use and ignition, and launch this vehicle on calm, windless days to insure safe recovery.

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