

PK-16

GRADUATOR™

Height: 40.0"

Weight: 13 oz.

Diameter: 2.630"

Flights to over 4.800 ft.

Motor Suggestions:

D* - E - F - G 29mm motors

* 24mm requires MMA-1 Adapter

Kit Features Include:

- Pre-Slotted Airframe Tubing
- Precision Cut Plywood Fins & Rings
- Plastic Nose Cone
- Nylon Parachute Recovery



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LOC/PRECISION MULTI-PACKS

NOTE: Schools, Clubs, & other groups



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 LOC Kits Available:

PK-1 AURA



PK-4 Lil Nuke



PK-7 Starfighter 152



PK-8 Legacy



PK-12 ONYX



PK-3 Weasel



PK-20 Viper III



PK-24 Viper IV



PK-48 LOC IV



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!

PK-16 GRADUATOR Assembly Instructions

PARTS LIST:	1 Airframe SBT-2.56-3S 30 Inch	1 Motor Mount Tube MMT-1.14 6 Inch	1 Launch Lug LL-25
	1 Shock Cord & Mount Assy.	1 Set of fins	1 Nylon Parachute LP-18
	1 Plastic Nose Cone PNC-2.56	2 Centering Rings CR-2.56-1.14	

- ◇ 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 familiarize you 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 (coarse, medium & fine), Primer and paint, Yellow Carpenter's Glue or Epoxy (5 or 15 minute).

Main Airframe Assembly Instructions

1. Position a centering ring onto each end of the motor mount tube so that the motor protrudes 1/8" beyond each centering ring and epoxy into place. When dry, give both sides of the two main centering ring/motor mount tube joints a good fillet coat of epoxy to insure maximum strength.
2. Working from the slotted end of the airframe with a long stick, apply a continuous bead of glue around the inside of the main airframe about 1/2" short of where the top centering ring will seat. Take the assembled motor mount and push it straight up into the glued end of the airframe until the bottom end of the motor mount tube is flush with the airframe's bottom edge. Set aside to dry. When dry, turn the assembly upside down and give the bottom centering ring a light layer of epoxy for additional strength. Set aside to cure.
3. Sand all fins smooth and round off their leading and trailing edges using medium then fine sand paper.
4. Test fit the fin tabs (which protrude out from the fin's root edge) into the airframe's fin slots. Sand fin tabs if necessary for proper fit to the motor mount tube. Place epoxy on the fin tab and partially exposed fin root edge. Place the fin tab in the slot and keep the airframe in a horizontal position while drying. Make sure that the fin is straight up from the airframe tube. When dry, repeat this procedure with the remaining fins.
5. Sight in the high point (center of airframe's diameter) of the airframe between any two fins and from 4-6" up from the main airframe's bottom edge, make a small pencil mark. From this mark, make a straight line up about 6" long. Glue the launch lug directly on this line, making sure that it is parallel to the airframe. Set aside to dry in a horizontal position.
6. Give all fin and launch lug joints **ADDED** glue fillets for **MAXIMUM** strength.

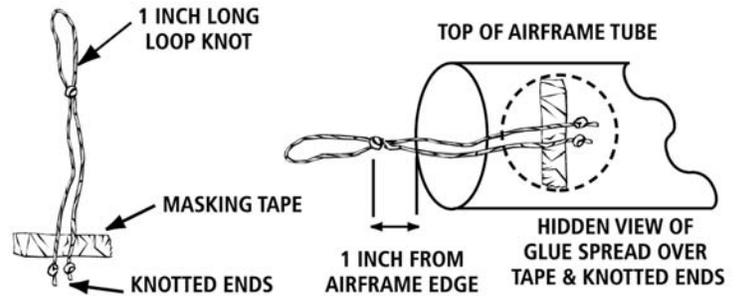
Shock Cord Mount Instructions

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.

Shock Cord Mount Instructions, cont'd

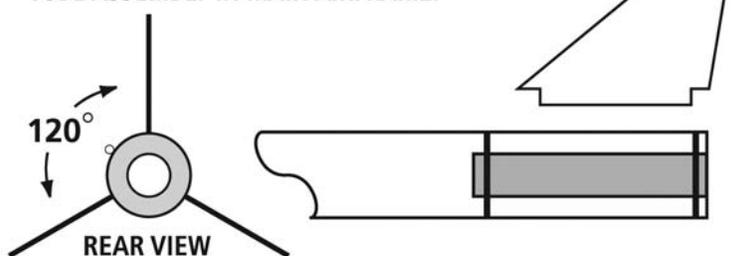
4. Place a generous bead of glue over the knotted ends and length of masking tape. Spread the glue around until they are completely covered and place the airframe in a horizontal position to dry. **REPEAT STEP 4 UNTIL A SMOOTH GLUE LAYER IS ACHIEVED OVER THE MASKING TAPE AND KNOTTED ENDS.**



Main Airframe Assembly Instructions, cont'd

7. Seal fins and launch lug with sanding sealer using a brush. Sand lightly between coats to fill pores and obtain a smooth finish.
8. Lightly sand plastic nose cone with fine sandpaper to remove molding seam line.
9. 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.
10. 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 also secure it with a double knot. Place a **SMALL** drop of glue on both ends to keep them permanently secured.
11. Attach the parachute to the shock cord about 3 feet away from the nose cone.
12. Select a motor for first flight. When using 24mm motors it is necessary to use LOC/Precision motor mount adapter MMA-1.
13. 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 the 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.
14. Remember to use enough recovery wadding to protect the chute and shock cord from the hot ejection gases.
15. 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.



THANK YOU FOR CHOOSING LOC PRECISION!