

PFY-BBX

Black Brant X

Height: 42.72"
Weight: 14 oz.
Diameter: 1.63"



PARK FLIER

SERIES

Motor Suggestions:

D - G

24mm motors require the MMA-1 Adapter.

Flights from 300 to 2,000 ft.

Kit Features Include:

- Slotted Airframe Tubing
- Payload Section
- Laser Cut Plywood Fins
- Fiber Rings / Wood Bulkhead
- Nomex Chute Protector
- Plastic Nose Cone
- Shock Cord
- Nylon Parachute Recovery
- Launch Lug



435A Factory Street . Plymouth, WI 53073
920.892.0557
LOCprecision.com

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 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

NOTE:
Schools, Clubs,
& other groups



Other LOC Kits Available:

PFY-MAGNUM



PFY-HLOC



PFY-IQSY



PFY-BBX



PFY-HAWK



PFY-IRIS



PK-5 Nuke Pro Maxx



PK-4 Lil' Nuke



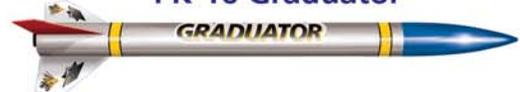
PK-56 Hi-Tech



PK-12 Onyx



PK-16 Graduator



PK-45 NORAD Pro Maxx



PK-48 LOC-IV



PFY-Black Brant X 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.
- ◇ 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, Epoxy (5 or 15 minute).

Main Airframe Assembly Instructions

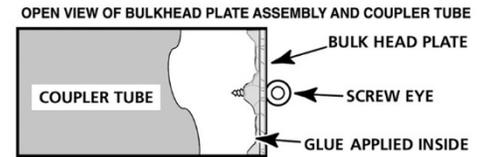
1. Using fine sandpaper, sand the outside of the main airframe, motor mount tube, and launch lug for better epoxy adhesion.
2. Fiber rings are included to mount the motor tube into the airframe. Take one of the rings (this will be referred to as the forward ring), with your hobby knife cut a slot in the inner ring to fit the shock cord through once the ring is placed on the motor tube. Some light sanding may be required to achieve a proper fit. With a ruler mark a line 3.5" from the end of the motor tube. The forward ring will be epoxied into place above the line. Measuring will ensure the fin tabs will be centered between the rings. The aft centering ring will epoxied flush to the end of the motor tube, the forward ring will be epoxied above or forward of the 3.5" mark on the motor tube. Once you are satisfied with the fit you can epoxy the rings and shock cord onto the motor tube. 2" of shock cord should be epoxied down to the exterior of the motor tube. Apply a bead of epoxy that meets the centering rings to the motor tube. Set aside to dry.
3. Before gluing motor section into place, test fit the parts. Insert motor tube in the airframe and test fit the fins in the slots. Ensure they align properly between the centering rings. Once satisfied with the fit, remove all test fit parts. Apply a continuous bead of epoxy around the inside of the pre-slotted airframe up from its slotted end. Take the assembled motor mount and push it straight up into the epoxied end of the airframe until the bottom end of the motor mount tube is flush with the airframe's bottom edge. Set in upright position to dry. When dry, turn assembly upside down and give exposed bottom centering ring a light layer of epoxy for additional strength. Set aside to dry.
4. Sand all fins smooth and round off the leading and trailing edges of them using medium, then fine sandpaper.
5. 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.
6. 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.
7. Epoxy the launch lug directly 1" from the aft of the rocket at the intersection of where a fin meets the airframe. This will ensure the lug is parallel to the airframe. Set aside to cure in the horizontal position.
8. Give all fin and launch lug joints ADDED epoxy fillets for MAXIMUM strength.
9. Use the payload airframe and measure 2" from an end and make a mark all the way around the tube. This will be the baseline for mounting the forward canard fins. Using the fin alignment guide included in the kit cut out the circle so the payload slips through the circle and move up to the line. Make marks where the canard fins will mount. One by one use quick cure epoxy to tack them to the surface making certain they are perpendicular to the airframe. Once all canard fins are tacked go back and make external epoxy fillets to ensure strength.

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 epoxy 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 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 with masking tape for a tight friction fit.
3. Put end of shock cord through slit cut in the Nomex Chute Protector and slid through. This will be the first item packed into the booster and will protect recovery items from ejection gasses and flames. Attach Shock cord to the eyebolt in the completed payload section.
4. Attach parachute to the shock cord approximately 2' from the payload section. To do this, take the chute shroud line loops 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.

Main Airframe Assembly Instructions, Continued

10. 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.
11. 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.
12. 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.
13. Select a motor for first flight. When using 24mm motors it is necessary to use LOC's motor mount adapter MMA-1. 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.
14. Always follow motor manufacturer guidelines and rules!

