

BANDIT EVO

GO FLY GOLD



Length: 76", Wing Span: 67"

Fuel Capacity: 2.2 Liters (74 oz)

For 60 to 100 N Turbine

ASSEMBLY AND OPERATING MANUAL

Version 2 April 2024

Vne 200 MPH Limit Thrust to 22 lbs

Equipped with HV Servos and should not be operated below 7.2 volts

CCU Pressure should be 75 PSI MAX

BVM

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Bandit Evo

Assembly & Operation Manual

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INTRODUCTION

Thank you for purchasing the Go Fly Bandit Evo. This model represents the latest in manufacturing technology and completion for the R/C jet enthusiast. The factory has expertly crafted and thoroughly inspected all aspects of the model. Only a small amount of work is required to complete the assembly of your Bandit Evo.

This manual contains instructions for safety, operation and maintenance. It is essential to read and follow all of the instructions and warnings in the manual.

Please read the entire manual to become familiar with the processes and procedures before you begin to assemble your aircraft.

Disclaimer

Bob Violett Models Inc. assumes no liability for the operation and use of these products. The owner and operator of these products should have the necessary experience and exercise common sense. Said owner and operator must have a valid Academy of Model Aeronautics license and a "Turbine Waiver" for operation in the U.S.A.

This is a sophisticated jet model aircraft. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this product in a safe and responsible manner could result in injury or damage to the product or other property.

Notice: Do not use with incompatible components or alter this product in any way outside of the instructions provided by BVM, Inc. The BVM Bandit Evo has been designed and flight tested around 60-100N class engines. Damage to the aircraft may result from exceeding this thrust limitation (22 lbs).

List of BVM supplied items

- Assembly and Operating Manual Package
- Flush Mount Vent Fitting (#PS-SP-0301)
- Central Controller Instructions

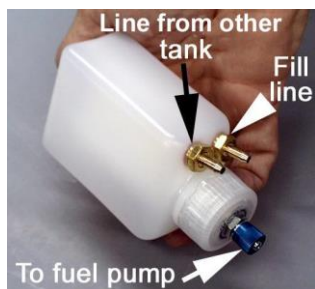
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Recommended Accessories

You may have some of these products in your shop, but if not, refer to this list.

- 60 to 100N engine of your choice.
- BVM U.A.T. (BVM# 6044)
- BVM Over Flow Tank (BVM# 6037)
- 12 Channel Power Safe Receiver
- (2) 7.4v Batteries 3600 mAh RX
- Safety Wire (BVM# 3030)
- Bavarian Demon Aero Cortex Pro Gyro (#V-DA-BD-Cortex Pro)
- General Purpose Jet Foam Cradle (#PA-SR-0080)



BVM Accessories Used in Demo Model

You may have some of these products in your shop, but if not, refer to this list.

- Jet Central Super Bee 80.
- BVM U.A.T. (BVM# 6044)
- BVM Over Flow Tank (BVM# 6037)
- Spektrum 12 Channel Power Safe Receiver (SPMAR12310T)
- (2) 7.4v Batteries Pulse 3600 mAh RX (V-PLURX15-36002)
- Safety Wire (BVM# 3030)
- Bavarian Demon Aero Cortex Pro Gyro (#V-DA-BD-Cortex Pro)

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Required Tools

A combination of Metric and SAE hex socket and drivers along with a small standard and phillips head drivers will be necessary.

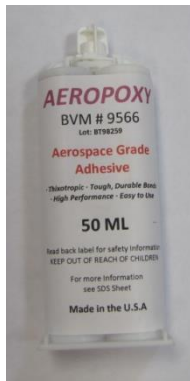
- 9/64" Long Ball Driver

List of Adhesives/Lubricants needed. Available at BVMJets.com

- Super O-Lube # 5779
- Axle Super Lube # 5784
- Dry Lube # 1947
- Pacer Z-42 # PT42

List of Adhesives/Lubricants not necessarily needed. Available at BVMJets.com

- BVM Aeropoxy # 9566
- BVM Qt Poxy # 9580
- Zap-A-Goo # PT12
- BVM Thin Lube for "O" Rings # 1945



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UNPACKING

Carefully remove items from the box. Open each package and inspect for shipping damage. After reading this entire manual, get familiar with the major kit components.

Note: Damaged parts must be reported to BVM within 7 days of receiving your kit.

Become familiar with the work completed at the factory. It is important that you inspect and approve this work now.

Using a stand, such as the BVM General Purpose Jet Foam Cradle (PA-SR-0080) will aid in the assembly of the Bandit Evo.

Carbon Dowel Preparation

- Use BVM Dry Lube (BVM# 1947) on the Carbon Rods to allow easier installation into the wing and tail receptacles.



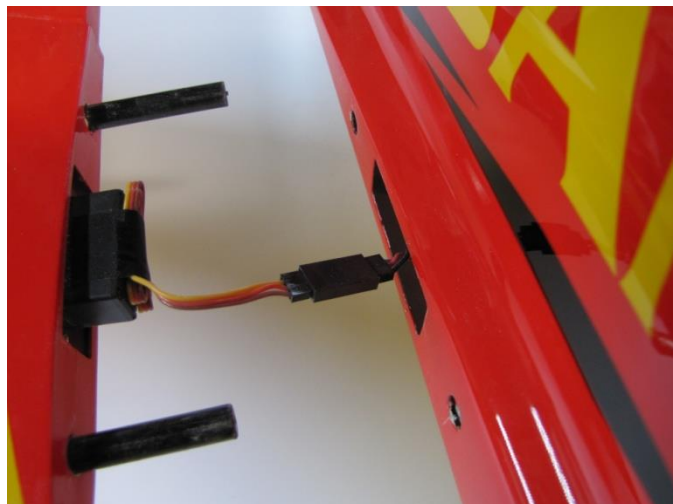
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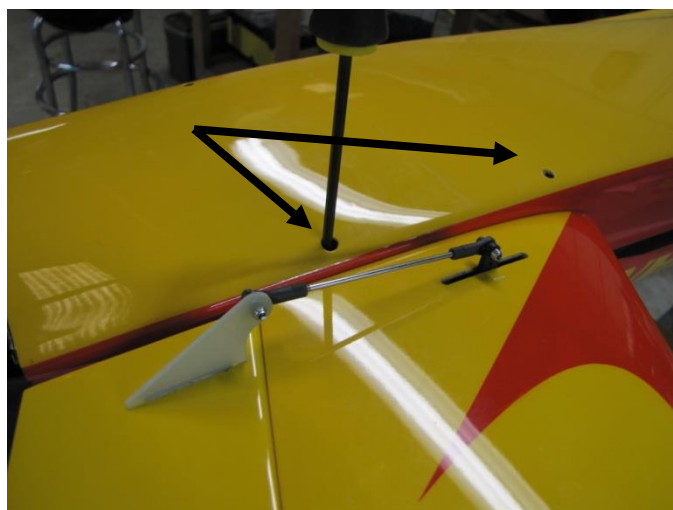
INSTALLING TAIL SURFACES

Install the Stabs

- Connect the servo leads and secure with servo clips or tape.
- Insert the Carbon Rods fully into the receiver brackets.



- Secure each stab by tightening the bolts with a 9/64 ball wrench.



Install the vertical fin

- Connect the servo leads and secure with servo clips or tape.
- Insert the Carbon Rods into the receivers.



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- Secure the vertical fin by tightening the clamps bolts with a 9/64 ball wrench.

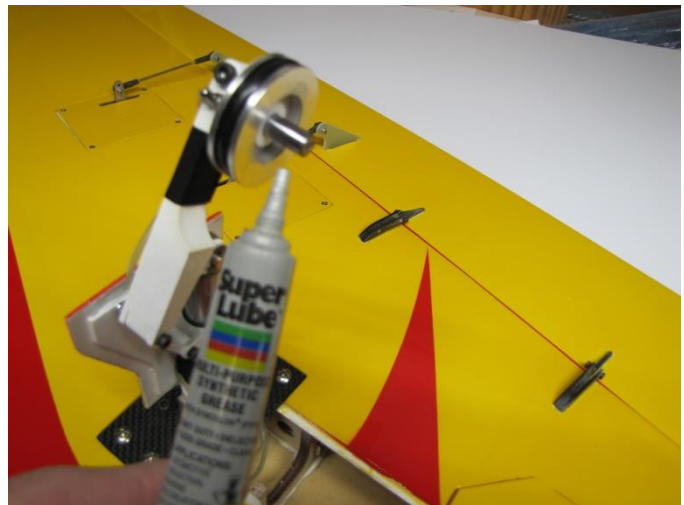


WING PREPERATION AND INSTALLATION

- Lubricate the O'Rings with Super O-Lube (BVM# 5779).



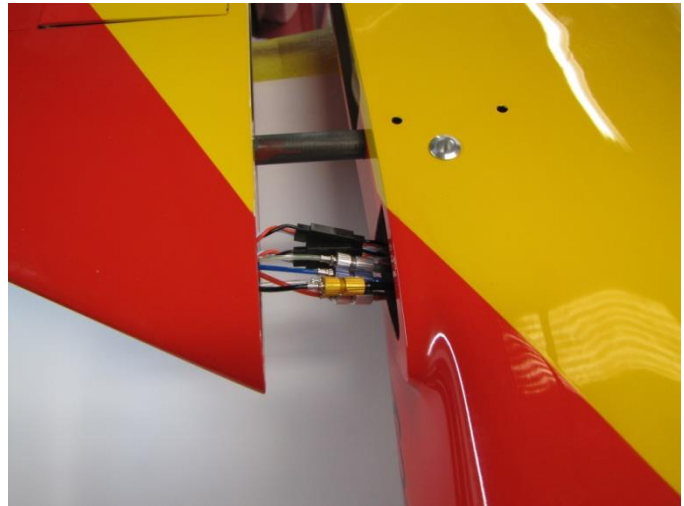
- Lubricate the axles with Super Lube (BVM# 5784).



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- Connect the servo leads and secure with servo clips or tape.
- Connect the color coded Air Lines
- Insert the Carbon Rods into the receivers.



- Secure each wing by tightening the (4) clamp bolts with a 9/64 ball wrench.



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EQUIPMENT BOARD LAYOUT

NOTE: The color of the equipment board will vary with the paint scheme.



Gray- Brake
Blue- Gear Up
Red- Gear Down
White- Door Open
Black-Door Close

Air Fill Valve

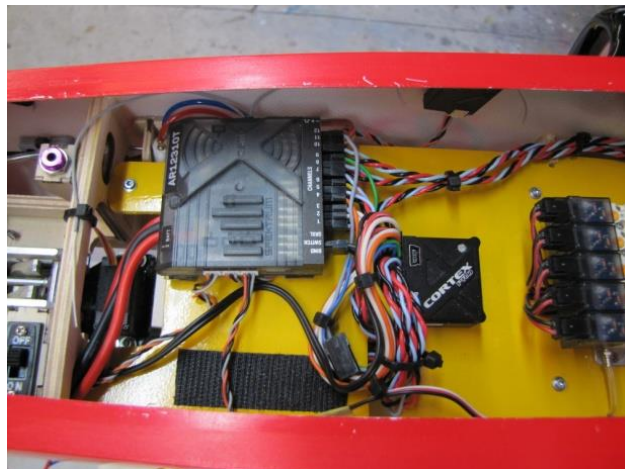
RECEIVER
ON/OFF SWITCH

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Mounting the RX

- Use sticky back Velcro to mount the RX as shown. Mount Remote Receivers in various positions following the recommendations for your particular R/C system and range check accordingly.



You can install the Receivers ON/OFF switch in the provided mount and install it in a location like the one shown here.



Mounting the Gyro

Use the space aft of the Receiver to mount the Gyro of your choice. Use the 2-sided adhesive tape provided by the Gyro manufacture to adhere the gyro in place. Follow the manufacture guidelines to connect to the receiver.



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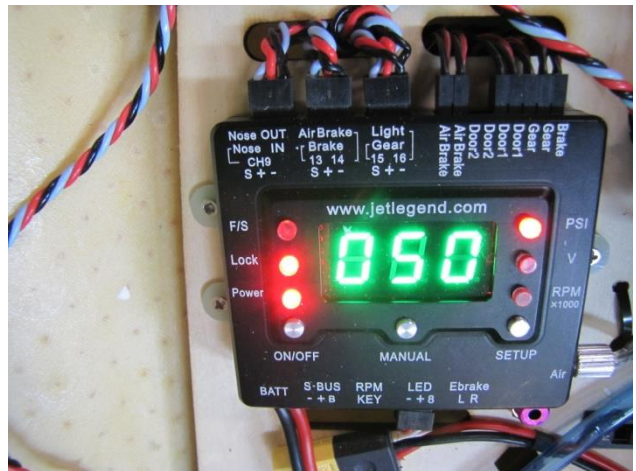
Wiring The Model

Servo Wire Color Codes		
Throttle		NA
Rudder		Blue
Elevator	Left	Green
Elevator	Right	Purple
Aileron	Left	Orange
Aileron	Right	Yellow
Flap	Left	Brown
Flap	Right	Grey
Brake		Red
Steering		Black



Central Control Unit

Follow the instructions in the Central Control Unit Manual that was provided along with this manual.



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FUEL SYSTEM

The fuel system is factory installed. Please read the “Go Fly Fuel System Check” article supplied with your manual package.

Both Main Tanks and Header tank are shown.



- Install A BVM UAT in the mount provided, located along the right rear fuse side in the engine hatch.



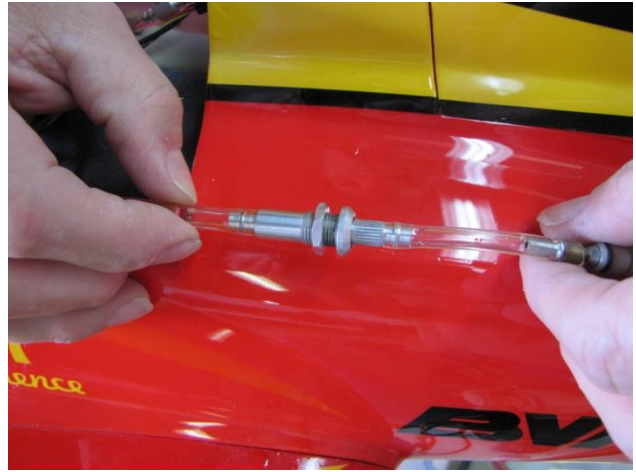
BVM Fuel Fill System



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To use, insert the fuel filler plug and twist a 1/4 turn to seat the filler plug with receptacle. The fuel receptacle is self sealing.



After removing the filler plug, insert the stop plug to help maintain the seal.



BVM used a small piece of fuel line to attach the fuel filler plug to the Fuel can.



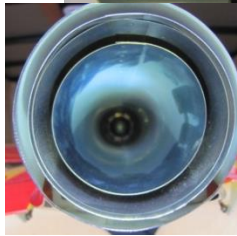
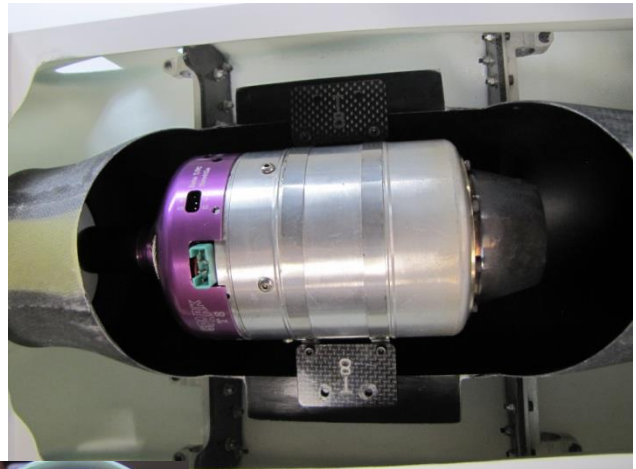
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TURBINE INSTALLATION

The Tailpipe is slightly long for smaller turbines, it may be necessary to trim the Tailpipe.

- Center the engine in the Bypass to determine if the tailpipe needs to be shortened in the bypass area.
- Sight down the tailpipe to ensure the turbine is centered.
- Mark the location of the turbine mount holes and measure the distance of the turbine exhaust and the inner tailpipe.



Follow your turbine manufacture manual for the recommended position from the tail pipe to determine if the tailpipe needs trimming.

- After determining how much to shorten the inner pipe, define the amount to be removed with tape. Use the curved scissors for the rough cut and a fiber reinforced cut-off wheel as shown to accomplish the task.



Bypass Removal

- Remove the Bypass by removing the (2) 440x 3/8 SHCS that secure the tailpipe to the bypass.
- Slide the Tailpipe towards the aft of the fuselage.



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- Remove the (2) M3x8 SHCS inside the bypass.

NOTE: Drill two 3/32" fuel drain holes in the bottom of the bypass. Drill one near the tailpipe. Drill the other hole below the center of the turbine.



Bypass Preparation

- Drill the (4) marked turbine mount spots with a #20 drill bit.



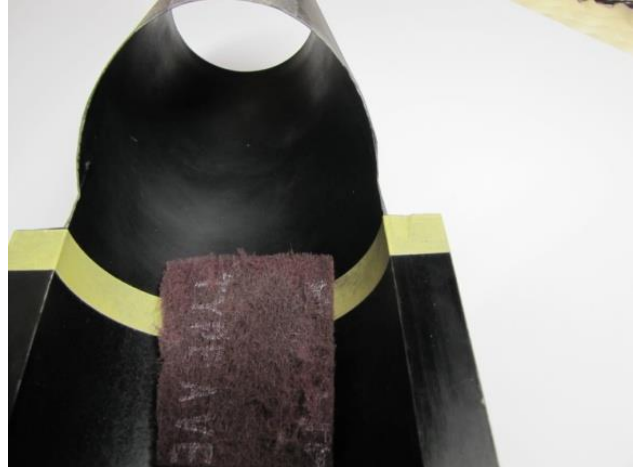
- Press in the (4) supplied blind nuts.



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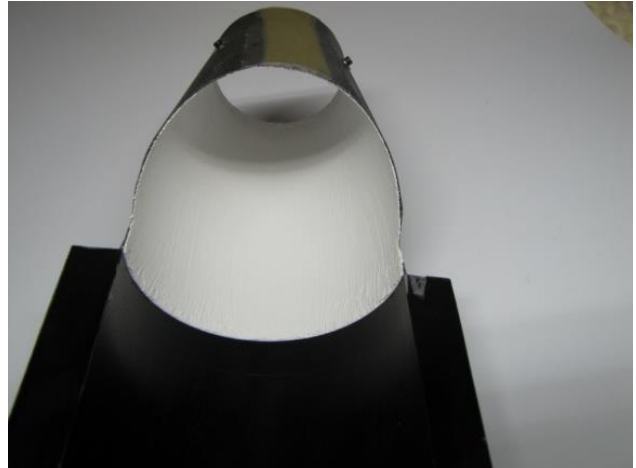
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- Tape off and scuff the aft inside portion of the bypass.



- Apply (3) coats of BVM Heat Shield to the inside of the bypass.

Note: A heat gun can be used to speed up the drying process in between coats.



Install the bypass, Turbine, and tailpipe.

The Bypass Cover is secured on the flanges by (4) #2 Socket head wood screws.

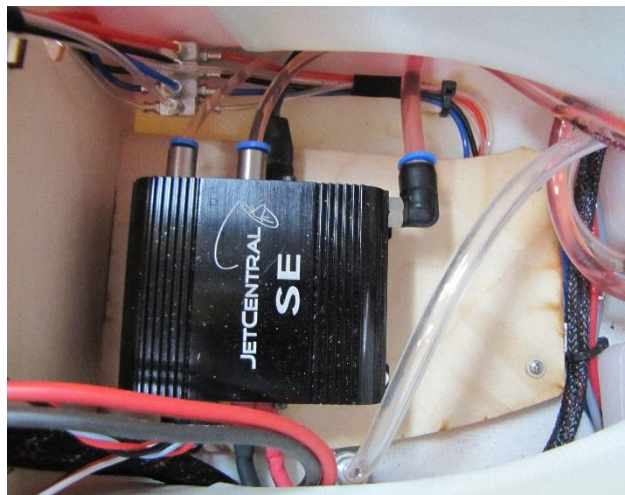


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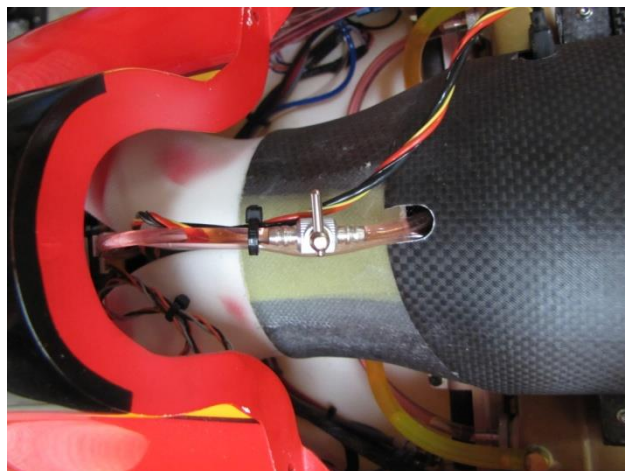
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Install engine accessories

- Mount the ECU and Fuel Pump on the tray below the Equipment Board just forward of the intakes. The ECU battery is mounted on tray in the nose area. (Our demo model uses a Jet Central Bee. The ECU and Fuel pump are combined.)



- The Fuel system's manual On/Off valve is located in the engine area.



- The Fuel filter is located between the UAT and the fuel pump just forward of the UAT.

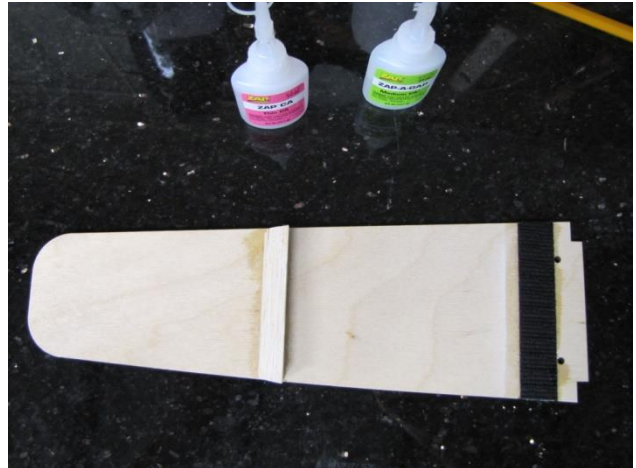


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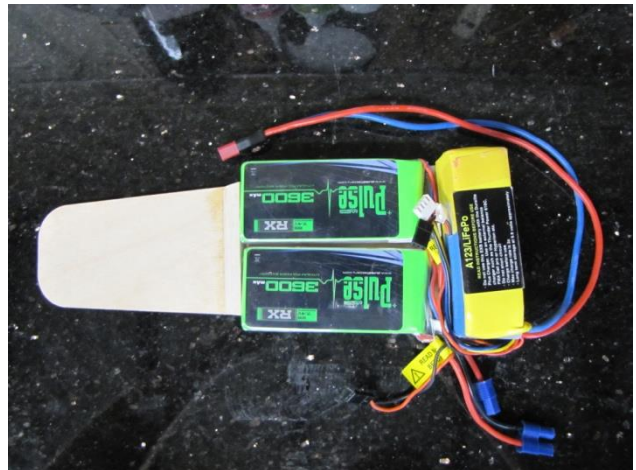
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Mount RX and Turbine Batteries

- Apply a ZAP finish near the (2) screw holes and install a piece of adhesive backed Velcro for the turbine battery as shown. Glue on a balsa block to hold the (2) RX Batteries in place.



- The batteries will mount in the nose of the Bandit EVO as shown on the battery tray.



Battery tray is shown in place.



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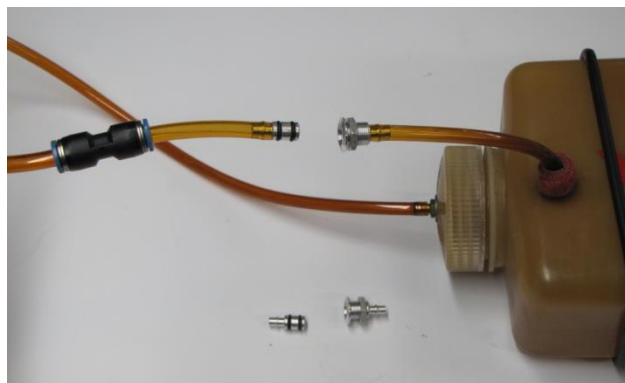
Flush Mount Vent and Overflow System

- A flush mounted vent system is used on the fuel system. A magnetic vent plug with red “Remove Before Flight” tag and BVM Overflow/Taxi tank conversion fittings are provided. (Tank not included)



- Install the fittings to your overflow/taxi tank. Use an overflow tank while fueling to prevent spillage and to ensure fuel tanks are full before flight.

Use BVM Overflow tank Part #BVM6047



Below, the overflow/taxi tank is connected.



The vent plug is installed.



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Center of Gravity

- Measure aft of the LE at the wing fuse joint 8.75".

OPTION: Install a #2 button head screw a 1/4" inward at the aft side of the tape on each side of the fuselage.



Balance the model fully assembled, empty fuel tanks, gear down, and a full UAT.

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Control Surface Deflections and Expo Settings

Note: The BVM Demo plane is set up using the following Expo percentages. Positive values are used on Spektrum and JR radios, Futaba uses negative.

Control	High Rate Travels		Expo	D/R M	D/R L
Stab (measured at the fuse side.)	Up 1.25"	Down 1.0"	25	80%/25	50%/20
Aileron (measured at the Flap)	3/4"	3/4"	25	80%/25	50%/20
Flaps (measured at the Root)	Take Off 3/4"	Landing 2-1/4"			
Rudder (measured at the Bot.)	L&R 1"		25	80%/25	50%/20

Connecting RX wires

The wires are labeled from the factory. If you are using the DX18, the program is available on from BVM. Follow the chart below to connect the servos.

DX18 Connection Chart						
RX Port	(1)Throttle	(2)Aileron	(3)Elevator	(4)Rudder	(5)Gear	(6)Aux1
Surface	Throttle	Right Ail	Right Elev	Rudder	Left Flap	Left Ail
RX Port	(7)Aux2	(8)Aux3	(9)Aux4	(10)Aux5	(11)Aux6	(12)Aux7
Surface	Right Flap	Gear	Left Elev	Brake	Nose Steering	Gyro

DX18 and DX18QQ Transmitter File

The BVM Demo models are setup on Spektrum DX18 transmitters. The file, if requested, has all the mixes, rates, expos, and settings done for you. Setting the sub trim and travel adjustment must be accomplished by the modeler for the specific aircraft.

Important!!! Check the directions of all flight controls before each flight.

Switch/Lever/Trimmer	Channel	Output
Switch A	(8)Aux 3 Gear	Landing Gear, Down is Down
Switch D (Flight Modes)	Flaps	Up is Normal flight Mid Take Off Down is Landing
Switch E	Brakes	Pos 0-off, Pos 1-pulse, Pos 2-stop
L. Trim	Steering Trim/(11)Aux 6	Down for Right Steering Trim Up for Left Steering Trim
Switch F	Aileron Rates	Up (0) is High
Switch G	Gyro	Pos 0- off, Pos 1- low, Pos 2- high
Switch A	Timer	

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First Flight Profile

Make the first flight with the gyro “off”. See also BVM article “Gyro Sense”.

Flight Time

The BVM demo model’s transmitter timer is set for 7 min. On the first flight, land a few minutes early to check fuel consumption. Adjust the flight timer accordingly.

Taxi Test/Engine Run Up

A taxi test should include a radio range check with the engine running at various power levels. Check that the wheel brakes are adequate and the stopping action is without skidding or pulling left or right. Be sure to shake the aircraft and push fore and aft with the engine at half power, this will remove any trapped air bubbles in the fuel system. Check the fuel line to the engine for “no bubbles”.

Takeoff

Begin the takeoff roll by slowly advancing the throttle. Maintain runway center while holding about 1/2 stick up elevator; the Bandit Evo will rotate when it is ready. If there is a cross wind, hold a small amount of aileron into the wind, be prepared with opposite rudder.

Trim

Once in the air, find a medium cruise speed to set the trims. The aircraft should fly straight and level “hands off”. When the landing gear come down, a few clicks of trim may be needed. This can be mixed in or use flight modes to trim automatically.

Practice Approaches

Save a few minutes at the end of your first flight to practice approaches and go arounds. It is beneficial to become familiar with the low-speed handling of the aircraft.

Landing

The landing is like most jets, “power on” during the approach. The Bandit Evo does not stall easily, it is best to land nose high, touching on the main wheels first.

The majority of the first flight should be spent trimming and practicing for the first landing. Save the aerobatics and air show stuff for later flights.

RX Battery Consumption

The average flight consumes 300 mAh. We recommend two flights and recharge. Use this data to calculate how many flights you can achieve from your system.

BVM is synonymous with “Success Jets.” It is very important to us that you are successful with our products. This extensive manual reflects our sincerity. As always, your comments and suggestions on BVM products are appreciated.

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