

VIPERJET arf

Assembly and Operational Instructions Manual



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INTRODUCTION

Thank you for purchasing Skymaster arf Viperjet! We have put a lot of effort and time into this model. We at Skymaster strive to be a market leader in the ARF—jet market. We were the first company to produce ARF—jets in the world and we would like to continue being amongst the best. Although we have made every effort that this model was fit for shipping, we would like you to inspect the contents and call your nearest dealer immediately if any defects or missing parts are spotted! This manual will allow you to duplicate the factory prototypes.

LIABILITY

You have acquired a kit, which can be assembled into a fully working R/C model when fitted out with suitable accessories, as described in the instruction manual with the kit. However, as manufacturers, we at Skymaster are not in a position to influence the way you build and operate your model, and we have no control over the methods you use to install, operate and maintain the radio control system components. For this reason we are obliged to deny all liability for loss, damage or costs which are incurred due to the incompetent or incorrect application and operation of our products, or which are connected with such operation in any way. Unless otherwise prescribed by binding law, the obligation of the Skymaster company to pay compensation is excluded, regardless of the legal argument employed. This applies to personal injury, death, damage to buildings, loss of turnover and business, interruption of business or other direct and indirect consequent damages. In all circumstances our total liability is limited to the amount which you actually paid for this model.

BY OPERATING THIS MODEL YOU ASSUME FULL RESPONSIBILITY FOR YOUR ACTIONS.

It is important to understand that Skymaster, is unable to monitor whether you follow the instructions contained in this instruction manual regarding the construction, operation and maintenance of the aircraft, nor whether you install and use the radio control system correctly. For this reason we at Skymaster are unable to guarantee, or provide, a contractual agreement with any individual or company that the model you have made will function correctly and safely. You, as operator of the model, must rely upon your own expertise and judgement in acquiring and operating this model.

WARNING

This 'jet' aircraft is a high-end product and can create an enormous risk for both pilot and spectators, if not handled with care, and used according to the instructions. Make sure that you operate your Viper according to the AMA rules, or those laws and regulations governing model flying in the country of use. The engine, landing gear, servos, linkages and control surfaces have to be attached properly. Please use only the recommended servos and accessories. Make sure that the 'Centre of Gravity' is located in the recommended place. Use the nose heavy end of the CG range for your first flights. A tail heavy plane can be an enormous danger for you and all spectators. Fix any weights, and heavy items like batteries, very securely into the plane. Make sure that the plane is secured properly when you start the engine. Have a helper hold your plane from the nose before you start the engine. Make sure that all spectators are far behind, or far in front, of the aircraft when running up the engine. Make sure that you range check your R/C system thoroughly before the 1st flight. It is absolutely necessary to range check your complete R/C installation first WITHOUT the engine running. Leave the transmitter antenna retracted, and check the distance you can walk before 'fail-safe' occurs. Then start the engine, run at about half throttle and repeat this range check. Make sure that there is no range reduction before 'fail-safe' occurs. If the range with engine running is less then with the engine off, please DON'T FLY at that time. Make sure that your wing spar tube is not damaged. Check that the anti-rotation dowels for the wings are not loose. Check that the wing, stab, fin and nose retaining bolts are tight. Please don't ignore our warnings, or those provided by other manufacturers. They refer to things and processes which, if ignored, could result in permanent damage or fatal injury. Secure the plane before starting engine.



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ARF Paint

The color finish on your Skymaster Viper arf model was applied out of the mould. We have used only the highest standard automotive paints to finish your model.

Should you damage the finish, Skymaster stock the color paint and hardener required for the repair. A good automotive spray painter should also be able to mix and supply the correct samples for repair.

If you have no experience in the use of these paints, it will be best to seek assistance.

Do not leave your model unprotected in the sun! always cover your model or park it in the shade. Extreme temperatures will damage the paint!

Finishing Your All White VIPER ARF

It is always best to fully assemble the model before painting. By doing so no damage or glue prints will ruin the paint.

The all white model will have some release agent on the surfaces.

Use #1000 wet and dry paper to sand the entire model. Mould lines can be sanded and filled using normal automotive fillers.

Please be extra careful when sanding near the hinge line! The hinges can easily be damaged. When masking and painting please make sure the control surfaces are not bend past 90—180 degrees extensively. This will cause the hinges to crack and may cause flutter.



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HANDLING & TRANSPORTING

Composite models are very light but strong. These characteristics do have a down side! It is brittle.

Take care when handling your model. DO NOT ATTEMPT TO PICK UP AN FULLY FUELLED MODEL BY THE LEADING EDGE BY YOURSELF! The leading edges will crack and delaminate. Full size jets have specially marked access points for the hooks of cranes!

Inspect your model before and after a rough landing. Make sure all parts are safe and sound.

Inspect model before and after transport. A sudden stop can easily cause an unnoticed dent!

The wings and tails are very flight worthy structures. They are light and extremely strong , however, they will dent if mishandled. Always support these structures on clean soft foam rubber.

LIVE HINGE

Skymaster utilize this system of hinging control surfaces because it is a very strong hinge system and is accomplished at the factory.

Occasionally, because of climatic changes, the bottom surfaces may “catch” or interfere with control travel surface actuation. Should this happen, use a fine abrasive strip to further bevel the L.E. of the control surface.

CAUTIONS: Do not apply any primer or paint to the underside of the main surface trailing edge.

Prior to each flight, check that the ailerons and elevators actuate properly, up and down.



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TOOL LIST

1. Perma-Grit sanding blocks
2. Perma-Grit small files
3. X-Acto Razor Saw
4. X-Acto hobby knife
5. Carbide Cutters (5/pk)
6. Set of ball end hex wrenches
7. Dremel Drum Sander
8. Dremel cut-off discs and mandrel
9. Dremel tool
10. A good set of small Phillips and slot end screwdrivers
11. Steel ruler
12. Pin vise to hold 1/16" drill bit
13. Soldering Iron
14. Solder
15. Cable ties
16. ZAP CA, epoxy, Aeropoxy
17. Microballoons
18. Resin mix
19. Polyester putty
20. Aeropoxy



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HEALTH

Use a mask (available at auto paint stores) to protect from inhaling the glass or carbon fiber dust. Use this mask whenever you are sanding or cutting fiberglass or carbon fiber materials. Use a charcoal filter paint mask (available at auto paint supply stores) when spraying any primer or paint. Spray out of doors or in a properly vented spray booth. Use safety glasses any time rotary tools, such as Dremel cut-off disc or Perma-Grit cutters, are being used.

GENERAL ASSEMBLY TECHNIQUES

We recommend to wax the model before assembling. This will help protect the finish from an epoxy finger print. Wax will not help for CA glues! Extra glue, extra paint, extra resin will add up to a heavy model. Plan before you glue! The glass cloth side of parts to glue, should be sanded with #80 grit paper for best glue adhesion.

Support the fuselage on foam pads.

Skymaster makes every attempt to insure that the parts fit. However, due to manufacturing tolerances, some parts may fit a little tight. Always trial fit parts and adjust if needed.

Only use high quality adhesives such as the ZAP products from Pacer Technology.

For extremely high stress areas we recommend "Aeropoxy." It is the strongest and best gripping adhesive we have found.

If fuel or grease are on the surface, first clean with acetone or thinners.

Clean off all excess glue—excess glue is excess weight.

Always check the outside skin of the model to look for any glue residue and remove it with Acetone before it cures. "Aeropoxy" is tough to remove once it has thoroughly cured.



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Radio Equipment

Failure to use the recommended servos, output arms, extensions, and hardware may result in a loss of control!

Throughout this manual we make use of various types of servos and radio equipment! We have used JR equipment during the installation process. If you make use of another manufacturer, please use equipment with similar specifications!

The Viper will require extension leads! Please use high quality extension leads. Make use of ceramic non ferrite cores if leads exceeds 1 meter.

The trend nowadays is to use dual battery management systems and dual RX equipment. With the introduction of 2.4 Ghz even quad RX systems are considered as normal for a jet model.

Always center and install the correct output arms while on the bench, once the servo is in the aircraft access to the servo arm screw is sometimes limited. The JR Matchbox makes this task very easy without using the complete radio system on the work bench.

Do not save any money when buying radio equipment. The price of servo's are far from the price of replacing the entire model.

REMEMBER: The best equipment is only as good as the weakest link. Ask yourself if this servo or link or lead etc is worthy of my trust to protect my very large investment...



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COMPOSITE PARTS

Photo 1

Viper fuselage
Viper Canopy
Viper Gear Doors (3)
Viper Ventral Fins (2)
Viper UHF Antenna
Viper Turbine Hatch
Viper Main Spar
Viper Stab Spar (2)



Photo 1

Photo 2

Viper Left Wing
Viper Right Wing
Viper Winglets (2)



Photo 2

Photo 3

Viper Left Stab
Viper Right Stab
Viper Fin + Rudder



Photo 3

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OPTIONAL PARTS

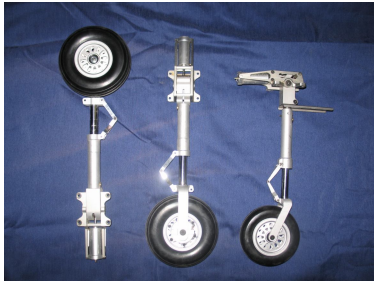


Photo 4

Viper L/G feature oil damped oleos, air inflatable tyres & Dual disc brakes.
The L/G come factory assembled and oleo pressure is factory set.

3 x Air Tanks
1 x Retract Valve
2 x Filler & 2 x Pressure Gauges
1 x Electronic Brake Valve
5 x Air Tubing, 10 x Quick Disconnect
8 x T-pieces, 2 x 4 way



Photo 5



Photo 6

Fuel Tank (2)
Fuel Accessories.

Pushrod Set
Viper Accessories



Photo 7



Photo 8

Airpower Optional 5 in 1 Electronic
Valve & Sequencer

Control Brake, Gear and Doors



Photo 9

Stainless Steel Tail
Pipe

Cockpit (2)



Photo 10



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CONTROL LINKAGES

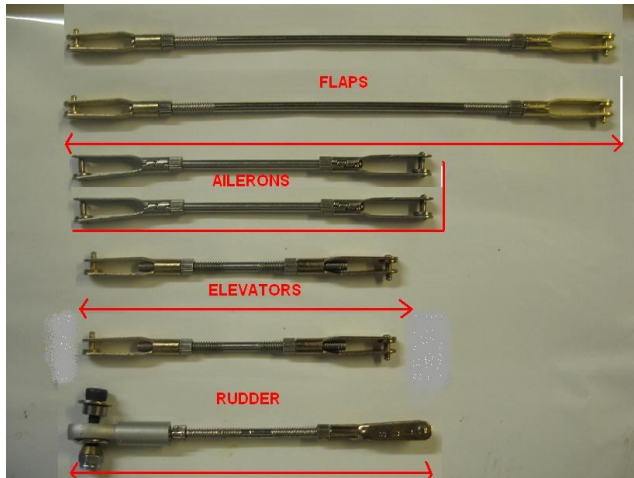


Photo 11

Flaps : 95mm
Aileron : 75mm
Elevators : 65mm
Rudder : 85mm
Steering: 55mm

WINGS

NOTE: Make sure to have some sort of protective foam on the work bench. This will protect the paint surface from unwanted dents. Assemble both wings simultaneously. Mark ✓ each step.

- ☐ Cut root rib with Dremel cut off disk
- ☐ Use Dremel drum sander to sand to shape.
- ☐ Trial fit LG & make sure root clear LG.



Photo 12



Photo 13

- ☐ Use Aeropoxy to glue LG blocks and LG ribs to skin of wing.
- ☐ Check servo mounts. Use CA to glue plywood if needed.
- ☐ Check operation of Flaps and Ailerons.
- ☐ Trim if needed. Make sure surfaces move freely.

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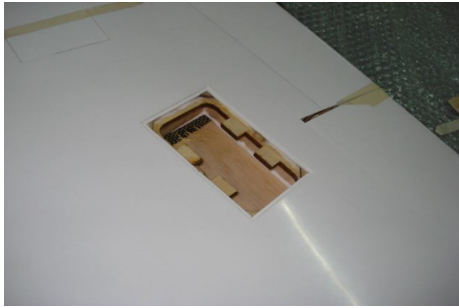


Photo 14

- Fit 2 L-shape servo brackets to 2 x JR DS8511.
- The 2 servo's must be mounted back to back with servo horn closets to TE of wing.
- Secure servo horns and centre servo's with TX.
- Secure 2 x extension wires. Use safety clips on joint.

- Feed wire through ribs.
- Secure servo's to wing. Use 8 servo screws.
- Draw a line perpendicular to hinge line.
- Use masking tape to mask off area around control horns. This will help with inserting glue in slots.

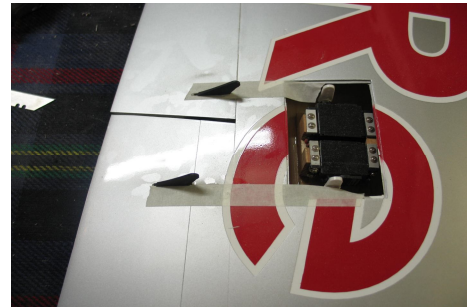


Photo 15



Photo 16

- Mark location of horns. Make sure pivot point is directly above hinge line.
- Use Dremel to cut slot for control horns.
- Use 30 minute epoxy to glue control horns
- After epoxy cured, insert pushrods.

- Cut slots in servo cover to clear servo horns.
- Secure servo covers with 6 , 1mm set screws.

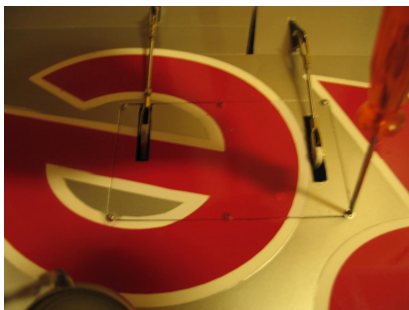


Photo 18

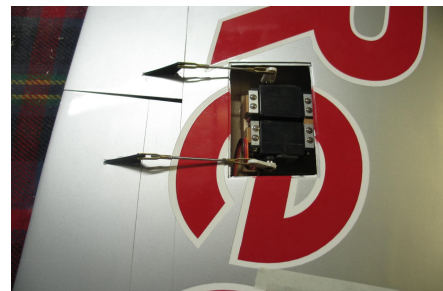


Photo 17

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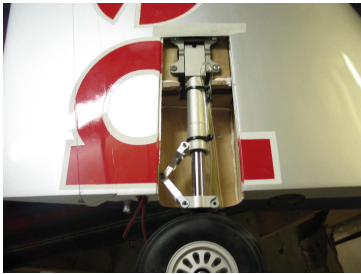


Photo 19

- Secure 3 different color air tubing to LG. Air in, Air out & Brake
- Use the same color code throughout air installation.
- Trial fit LG and mark location of 4 bolts. I have used self tap screws with great success over the years. But M4 bolts and blind nuts will also do the job.

- Drill pilot holes and secure LG to blocks.
- Check operation of LG. Use air line clamps and cable ties to secure pipes and servo wires.
- Cut pipes to length and terminate with quick disconnects.

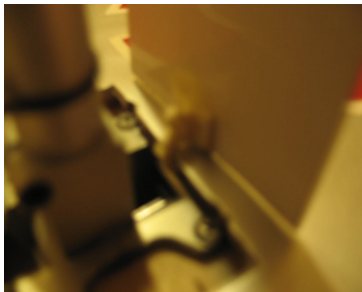


Photo 21

- Hinge bottom of gear door with door hinge. Scuff the surface and use aeropoxy.
- Secure hinge with small screws.
- Drill hole in door to fit pushrod bracket. (parts not supplied by

Skymaster) (Mark location of bracket after you have establish the correct location.

- Fit other bracket around oleo.
- Make up pushrod link between oleo and door. Retract LG. Check fit of door and adjust length of pushrod until door closes correctly.



Photo 24

- Fit and glue winglets to wing tips. (do this after painting)
- Trail fit both wings to fuselage. Bolt in position and check operation of LG. Trim fuselage if needed!

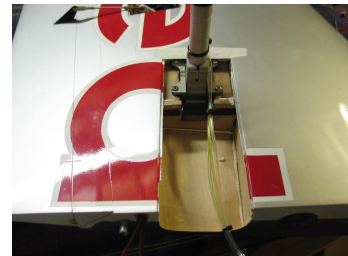


Photo 20

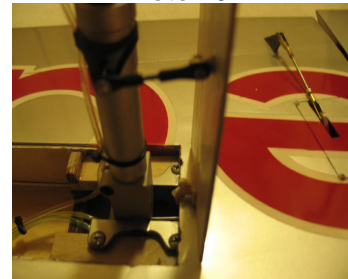


Photo 22

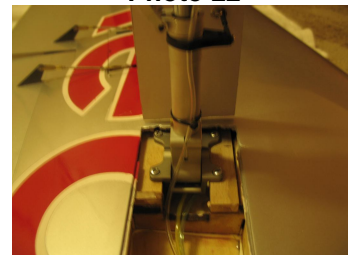


Photo 23

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STABILIZERS

NOTE: Make sure to have some sort of protective foam on the work bench. This will protect the paint surface from unwanted dents. Assemble both stabilizers simultaneously. On prototype elevator servos were installed in fuselage. It was later changed to installation below. Mark ✓ each step.

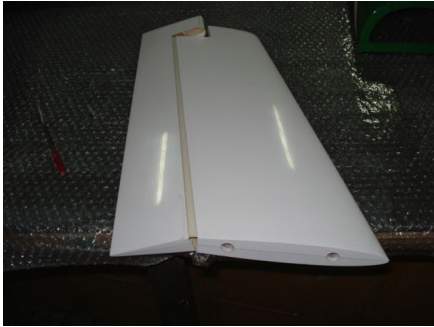


Photo 25

- ☐ Inspect the hinge line and make sure elevator operates freely.
- ☐ Locate 2 x DS8711 servos and secure long HD plastic servo horn to servo.
- ☐ Connect both servos to RX and set up TX for dual elevators. Centre both servos.

- ☐ Cut slot in root of elevator and fuselage to clear servo. Glue plywood inside stab. Note that servo horns must be close to root and closets to TE.
- ☐ Secure servos to plywood mounts.

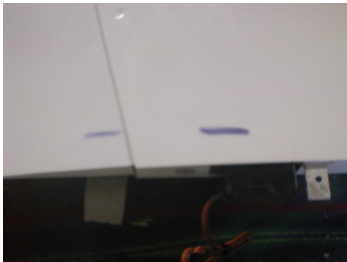


Photo 27

- ☐ Mark location of servo horn.
- ☐ Cut hole in skin. Check servo horn moves freely. Draw line perpendicular across hinge line.
- ☐ Cut slot for elevator horn and glue in position. Make sure pivot point on horn is direct in line with hinge line.

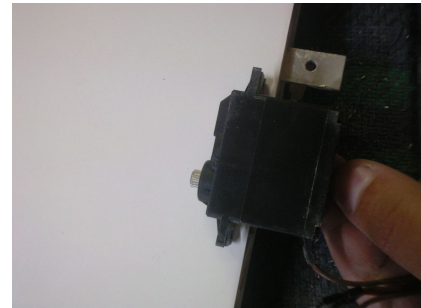


Photo 26

- ☐ Run extension wires in harness and secure to formers. Note: It is very important that wires do not touch tail pipe. Use protective sleeve if you feel like it, although the prototype did not have.
- ☐ If using Sullivan clevises you need to drill servo horn. (standard holes will be too big and flutter will occur. Use bearing links for best results)
- ☐ Secure extension lead and servo wire with cable ties.



Photo 28



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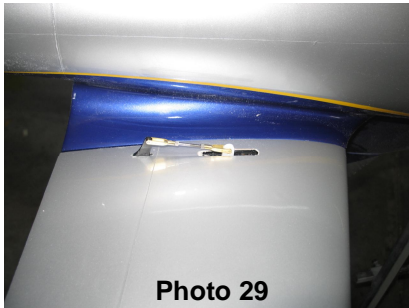


Photo 29

- ☐ Fit pushrod.
- ☐ Check operation of control surface and adjust both elevators the same. (The installation must be a mirror image of each other)
- ☐ Insert stabilizer spars & bolt stabs in position.
- ☐ **NB:** During testing of the Viper I installed elevator servos in 3 different positions. I have found that this method is best. Please be not confused when some pictures in this manual show elevator servos mounted in fuselage. Make sure there is no play in the installation. Play on linkages will cause flutter and destroy your Viper! We recommend to mass balance each elevator with 45 grams of lead in the balance tabs.

FIN & RUDDER

NOTE: Make sure to have some sort of protective foam on the work bench. This will protect the paint surface from unwanted dents. Mark ✓ each step.

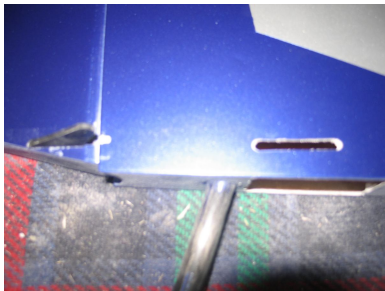


Photo 31



Photo 32



Photo 30

- ☐ Cut root rib with Dremel cut off disk
- ☐ Use Dremel drum sander to sand to shape.
- ☐ Trial fit servo into fin & make sure root clear servo.
- ☐ Mark location of rudder horn. Mask off area.
- ☐ Glue rudder horn in position. Check for free operation.
- ☐ Install long servo horn and centre servo.
- ☐ Cut slot in fuselage for servo. Use CA to glue plywood mount if needed.
- ☐ Secure extension wires inside fuselage. Make sure no wires do not touch tail pipe.
- ☐ Trial fit fin and rudder. If happy glue rudder hinges and rudder in position

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Photo 33

- ☐ Slide fin in position and secure with bolt.
- ☐ Fit pushrod.
- ☐ Check operation of control surface and adjust rudder pushrod for centre.
- ☐ Fin can be removed for transport via hole in fuselage.

VENTRAL FINS

NOTE: Make sure to have some sort of protective foam on the work bench. This will protect the paint surface from unwanted dents. Mark ✓ each step.

- ☐ Drill 4 2mm pilot holes for ventral fins
- ☐ Use aeropoxy and glue 2.5mm steel pins in position.
- ☐ Mark locations for pins onto ventral fins.
- ☐ Drill 4 2mm pilot holes into ventral fins.
- ☐ Trial fit fins. Note the fins are shaped to fit fuselage. Make sure it aligns with the panel line drawn on fuselage.
- ☐ Mask off area both sides of each ventral fin. This will help not to get glue onto unwanted areas.



Photo 34

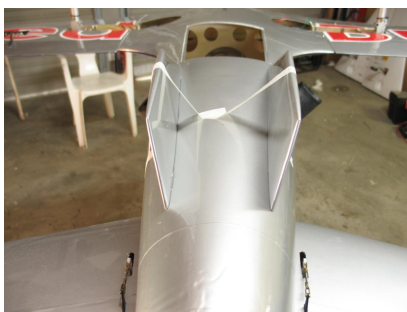


Photo 35

- ☐ When happy use silicon glue and glue fins in position. Align fins with turbine hatch. Make sure both fins sit at same angle. (Note: If model unpainted do this after painting)

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FUSELAGE

Make sure you have a good stand for fuselage. Once the nose wheel and ventral fins are installed it is very difficult to handle on a flat surface. You will need to assemble the rest of the Viper on this stand.

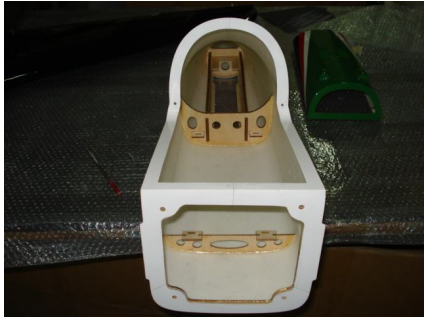


Photo 36



Photo 38

- ☐ Locate the 4 x M5 bolts and washers for fuselage.
- ☐ Align fuselage and secure with 4 bolts. Check fit of canopy once the fuselage halves are joined.
- ☐ Route all loose servo wires to nose. Secure wires with cable ties to formers. Also install 2 x Aileron and 2 x Flap extension wires.
- ☐ Turn fuselage upside down
- ☐ Locate nose LG unit.
- ☐ Install JR DS8511 steering servo. Bolt with 4 x M3 bolts and lock nuts.
- ☐ Centre servo and install pushrod.
- ☐ Mark location of retract unit.
- ☐ Drill 4 2mm pilot holes

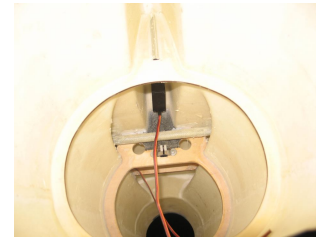


Photo 37

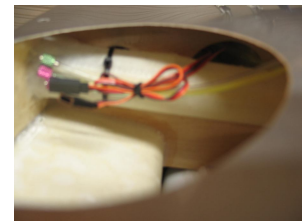


Photo 39

- ☐ Fit 2 x air tubing to retract unit! Note color code of wires.
- ☐ Secure LG to LG blocks. Use 4 x self tap screws.
- ☐ Retract unit and check for clearance all around wheel.

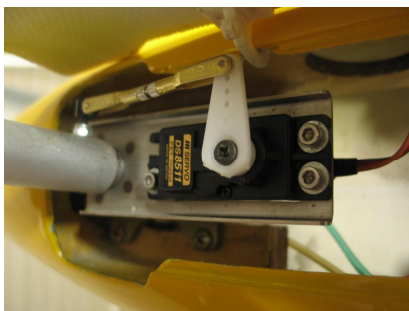


Photo 40

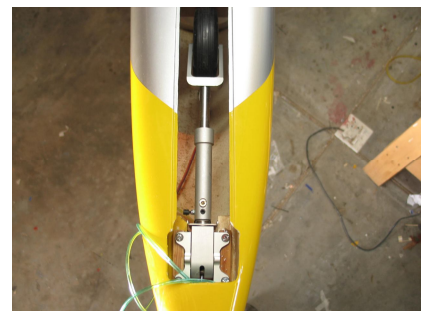


Photo 41

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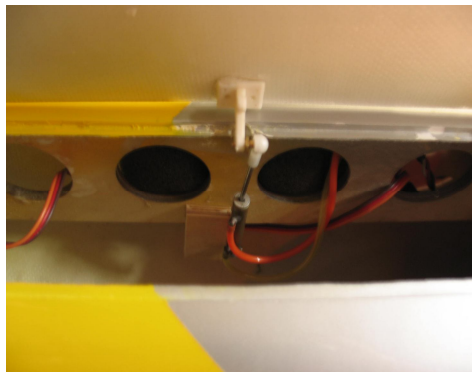


Photo 42

- Trim nose door to fit.
- Turn fuselage right side up and glue 3 x door hinges to fuselage.
- Glue door cylinder mount to fuselage and secure door cylinder. Note color code of air tubing.
- Mask door in close position and glue other side of Door hinges to door. Cut front hinge to clear nose retract unit.

- Once glue has set, check operation of door. Trim door if needed.

TAIL PIPE

- Drill holes in mounting lugs of tail pipe.
- Make 90 degree bend in each mounting lug.
- Slide tail pipe in position. Note: The rear of pipe must just exit the rear former by 10mm.
- Mark location of screws on turbine rail.
- Drill pilot holes for self tap screws.
- Secure pipe in position and glue end of pipe with silicon glue to former.
- Glue bellmouth with silicon glue.

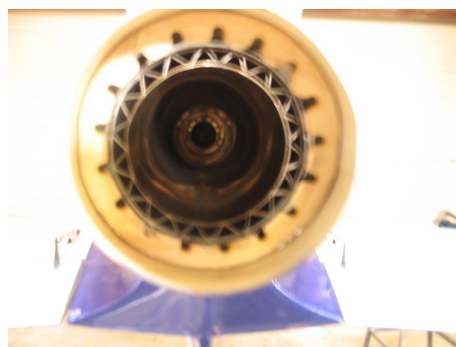


Photo 43



Photo 44

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FUEL CELLS

The fuel system is very important. A good installation will ensure trouble free operation and no flame outs due to air bubbles. Make use of an air trap. We recommend BVM UAT.



Photo 45



Photo 47

- Rinse tanks and make sure no foreign objects from manufacturing process stayed behind in tank.
- Do a pressure test and see if tank is secure no cracks on seam lines.
- Mark the top of tank . Also draw arrows to show direction of flow.
- Make up 2 x fuel fittings. Make sure clunk will reach all corners of tank.
- When you cut copper pipe, make sure to ream ends for better operation.
- Fit fitting to tank. Tighten bolt and do an air test. Make sure no leaks are present. Do not over tighten bolt.
- Silicon glue bottom tank to bottom of fuselage and inlet duct.

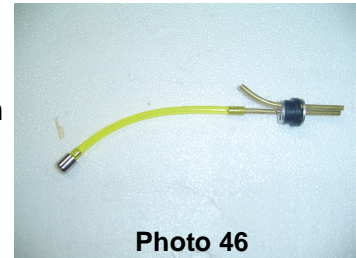


Photo 46

- Silicon glue top tank on plywood mount above intake.

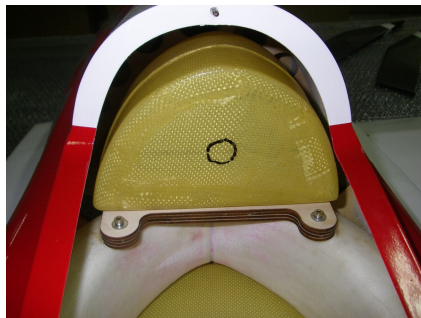


Photo 48

- Install UAT on bottom of fuselage in front of bottom tank.
- Plumb tanks with tygon tubing.
- Fill and drain tanks! Check that no air are trapped in tanks. UAT must drain last and stay full of fuel all the time during draining.

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FUEL CELL DIAGRAM

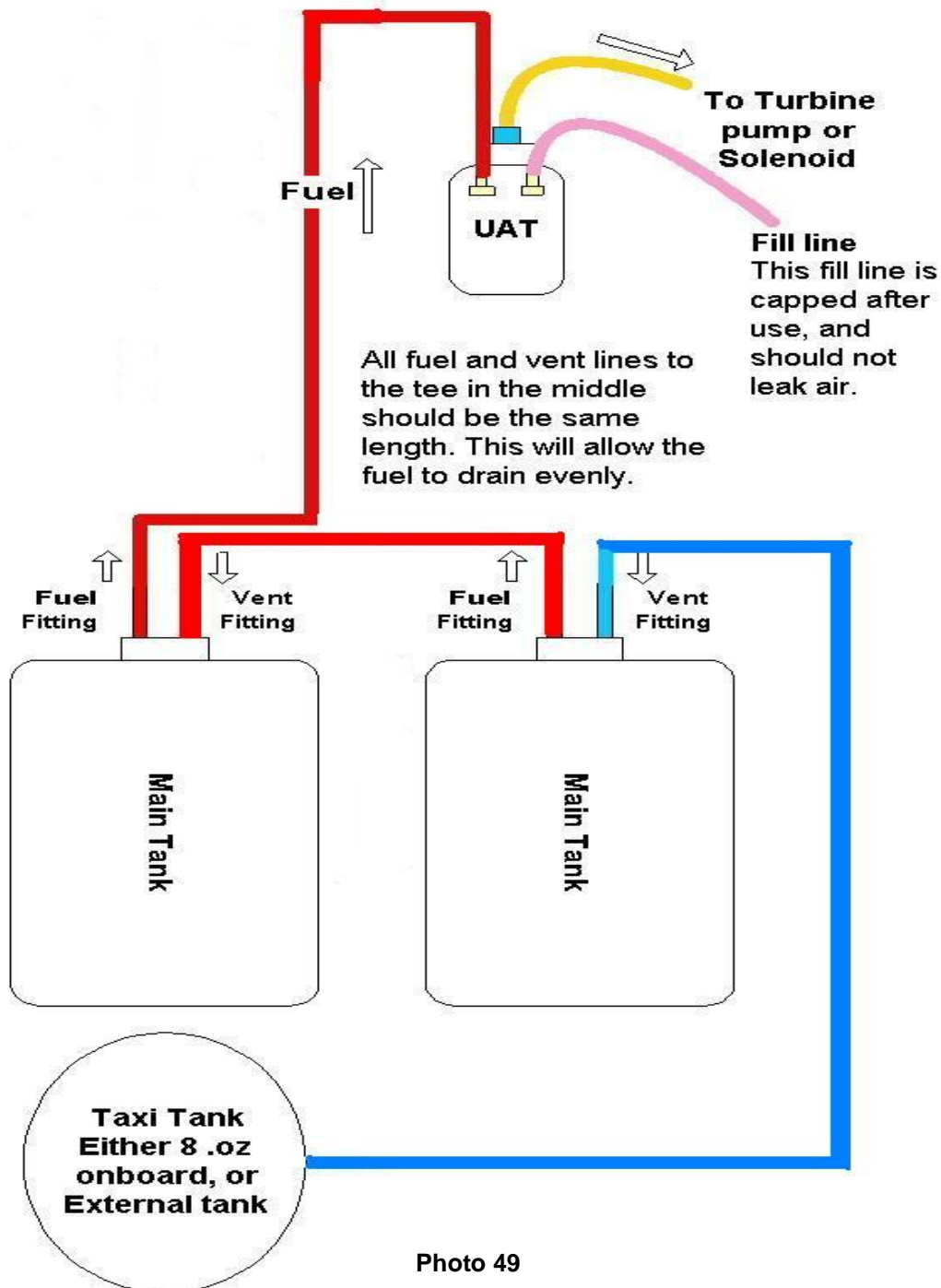


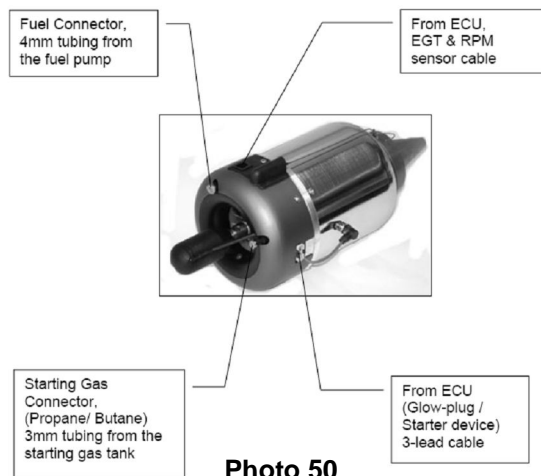
Photo 49

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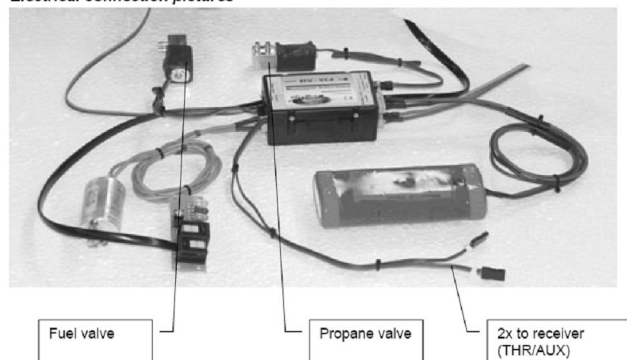
TURBINE INSTALLATION



- Please follow the instructions supplied with your turbine.
- Secure turbine to turbine rail via hatch at bottom of fuselage. Leave gap of 25mm between NGV and tailpipe.
- Run all turbine wires and power cables on opposite side of servo wires.
- Always secure all wires in harness. I would suggest you install a FOD. This will save you money in the long run.

- Install fuel pump close to UAT. We recommend to make use of a mechanical shut off valve as well.
- Secure all Festo pipes with cable ties. Make sure fuel filter and gas canister are mounted vertical.
- Install NiCad or LiPo battery in nose next to LG. I always put a fuse holder inline with power cable.
- Locate 6 x 2mm screws to hold turbine cover in position.

Electrical connection pictures



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AIR SYSTEM

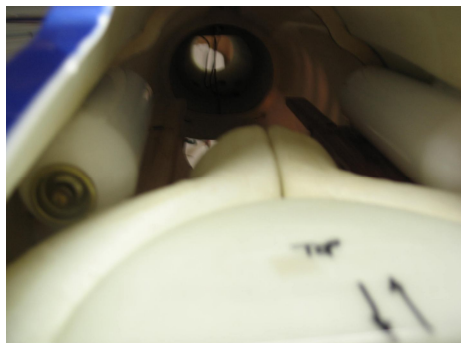


Photo 53

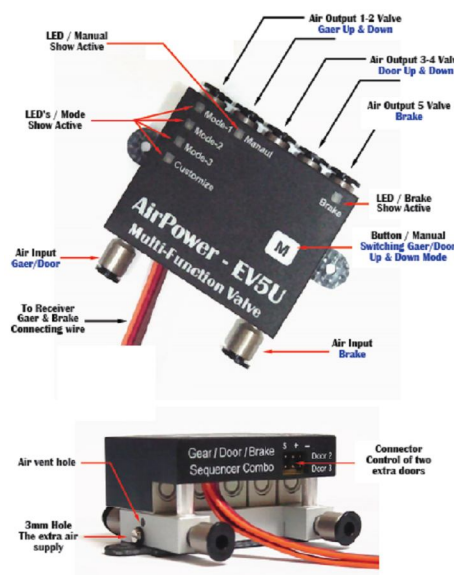


Photo 54



Photo 55

- Glue the air tanks with silicon behind the fuel tanks. I have installed the 2 large tanks for operation of gears ,doors and brakes.
- Fit the 2 filler valves and 2 pressure gauges onto accessory tray.
- Plumb the landing gear, door and brake system by using color air tubing. T all same color tubing together until a single pipe emerge.
- Route all 5 pipes to the accessory tray in front of fuselage.
- The air system will consist of :
 - Air up, Air down retracts (2)
 - Air up, Air down doors (2)
 - Air out brakes (1)
 - Air in (2)
 - Total of 7 pipes
- There are 2 options available for the air system:
 - Mechanical Valves or Electronic Valves
- For mechanical valves you will need 2 x 2 way valves and 1 x 1way valve with 3 servos and sequencer.
- The electronic EV5U will do all the above in a single unit. This will make installation much simpler and save space.
- Air leaks can damage your model! Please do a thorough check for air leaks. Make sure the system can hold pressure for at least an hour in the up and down position.
- Do not rush this installation.



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- For scale door installation the Viper require additional 2 way electronic valves. The main doors in the fuselage will stay close before and after retraction. This can easily be programmed with EV5U.



Photo 56 2 way



Photo 57 1 way

AIR DIAGRAM

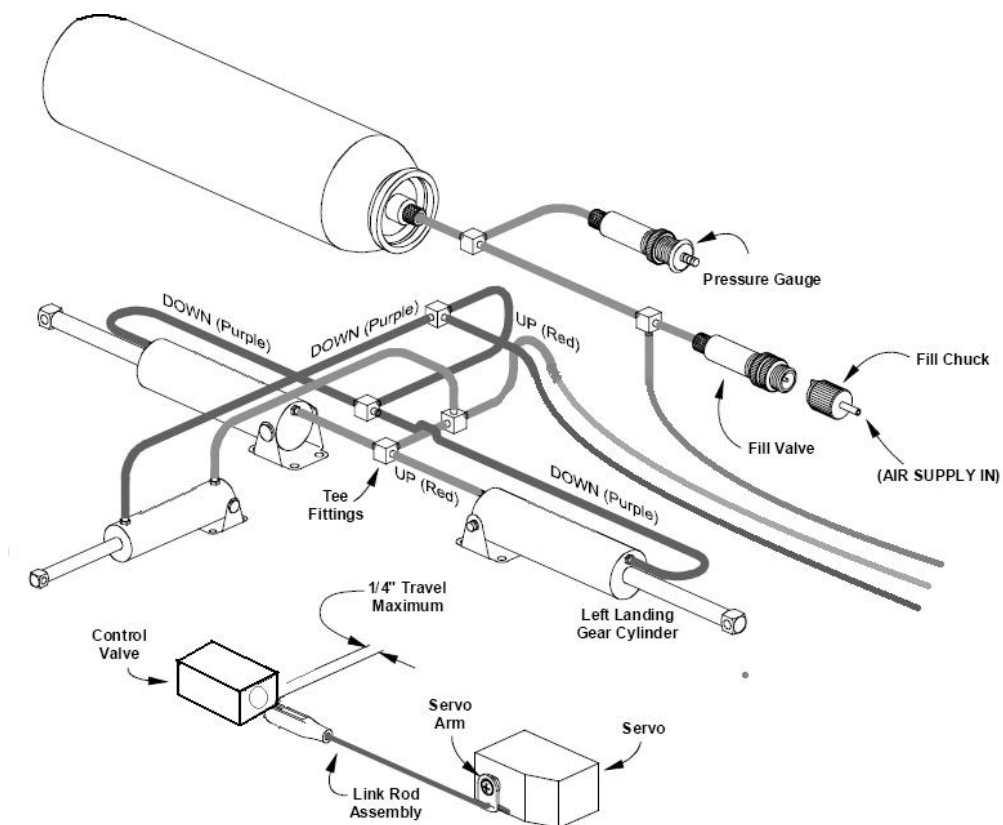


Photo 58 Diagram for retracts



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COCKPIT AND CANOPY

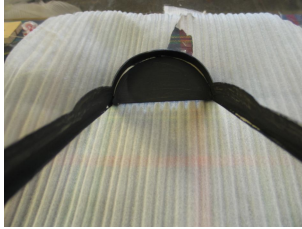


Photo 59

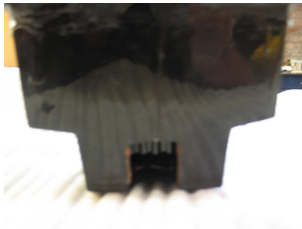


Photo 61

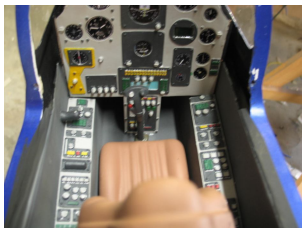


Photo 63

- Trace the shape of rear canopy and cut balsa to fit. Glue and paint.
- Cut rear cockpit front to fit over bulk head. (photo 60)
- Cut rear cockpit to clear upper tank fittings. (photo 61)
- Glue balsa stick to front of fuselage to support front canopy. Make sure front canopy clear all accessories on bottom tray.
- Slide front canopy in position. Use Dremel drum sander to sand fuselage canopy frame to clear cockpit.
- Slide rear cockpit on position. Trim to fit.
- Use small 2mm self tap screws to secure cockpits in position.
- When happy remove and paint frames.



Photo 60

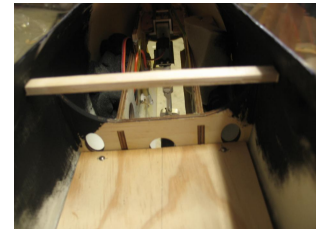


Photo 62



Photo 64



Photo 65



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EQUIPMENT INSTALLATION INTO VIPERJET

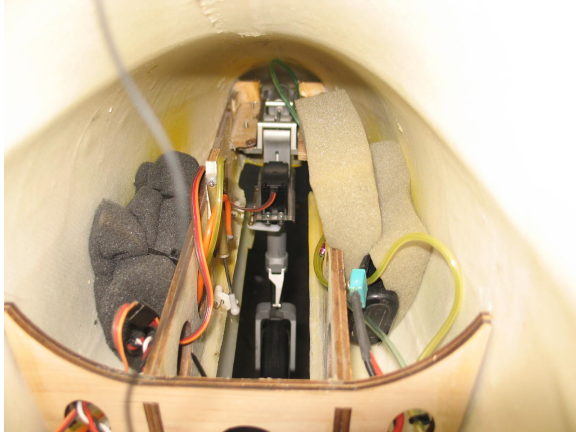


Photo 66

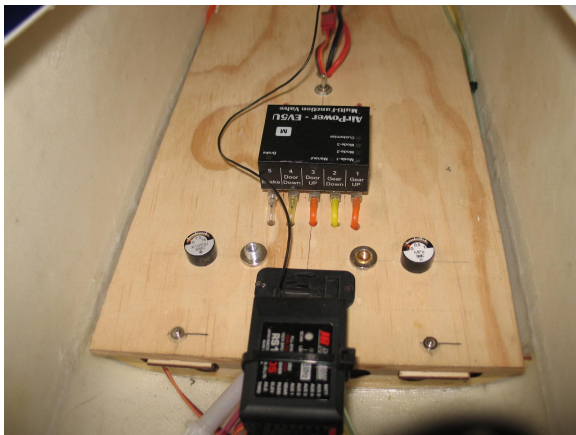


Photo 67

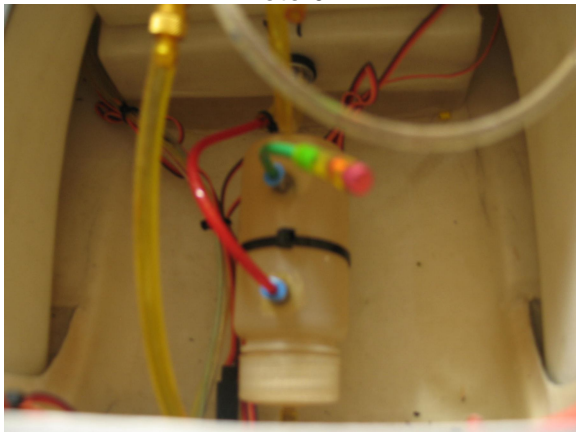


Photo 68

□ Equipment installation is a personal venture. There is one golden rule: Do it as neat and logical as possible! This will make faultfinding and service of components easier. The Viper basically consist of 6 circuits!

1. Servo wires
2. Power cables
3. Data cables
4. Pneumatic pipes
5. Fuel pipes
6. RX cable

Please try and separate these circuits as far as possible. It is advisable not to run RX cables near any kind of electrical fields.

Make all switches and filler valves and charging sockets easy accessible.

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BEFORE YOU FLY

It is assumed that the builder of this kit has acquired the basic skills and knowledge necessary to make a safe and functional radio control installation into a model. Therefore, these notes are intended only to assist that experience.

□ Travel adjust measured at root.

- | | |
|-------------------|------------|
| 1. Elevator | 20mm |
| 2. Rudder | 25mm |
| 3. Aileron | 15mm |
| 4. Flaps take off | 15 degrees |
| 5. Flaps landing | 45 degrees |

NOTE : Make sure flaps travel same. Use Powerbox or Matchbox to match travel.
Flaps should be deployed in landing circuit only below 90mph

- | | |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| □ CG | 220mm—250mm from leading edge at root. Empty tanks, UAT full and wheels down. |
| □ Weight | Dry weight will be between 28 and 35 lbs depending equipment. |
| □ PSI | 80—100 psi for pneumatic system |
| □ Power | JR equipment operates on 4.8V. If you use 5 cell packs please use a voltage regulator. I prefer 4 cell 2400mA RX packs.
Lipo packs are standard with Powerbox installations |
| □ TX RX | Do a complete range check before flight. Do this with turbine running. Follow manufacturers instructions. |
| □ Speed | Set the maximum speed to 180mph! The prototype were tested with Jetcat P-120 and P-160 turbines. More powerful turbines require extra care and extra reinforcing. |
| □ Timer | A timer can save your model. Get into the habit of programming the timer. |



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Take-Off

Do some taxi tests before your flight! Make sure you are familiar with all settings and make sure the model track straight on the ground without rudder input.

Choose a fine day for the maiden flight. Do not force a maiden flight!

Murphy will visit you!

Select take off flap or flight mode 1 and open throttle. Gently pull back on stick 30m down the runway. The Viper will be in the air faster than you expect. Raise the flaps and gear at safe altitude and let the model sit on rails.

Slow Flight

Most of the first flight should be utilized to get familiar with the slow speed flight characteristics. Select the flaps to the takeoff position; there should be no pitch change. Extend the gear and select full landing flaps; adjust the power to maintain level flight and a speed of about 80—90mph.

Climb to a safe altitude and slow the model to the edge of a stall to know where that edge is.

Landing

Fly a complete circuit before landing. Approach from the downwind side and lower the LG. Fly a complete circuit getting use to the power required. On the next circuit lower the flaps. If you have a headwind be very careful not to get below the power curve on the downwind side. I do not use flaps on the Viper with a headwind.

Align the model and use throttle to control the descent! The elevators will stay very active even at low speed. Flare the model just before touch down. Let the model roll out and apply brakes.

Taxi back and do necessary adjustments to customize Viper for your need!

We at Skymaster wish you many happy flights with your Viper! Put some smoke and landing lights and you will be centre of attention at your next air show!

Regards,

Anton Lin and Skymaster Team!

