

# ARF PLUS PRO F100F

1/7.5 Scale Almost-Ready-To-Fly RC Jet  
Assembly and operations manual



## Specifications

Type : T.A.V.S ARF PRO  
Scale : 1/7.5th  
Length : 83.6": (2123mm)  
Span : 70": (1775mm)  
Weight : 30—36 Lbs ( 14—17 Kg)  
Engine : 27—32 Lbs (12—14 Kg) trust  
Radio : 12 Channel (12—16 servo's)

## The F-100F Super Sabre by Skymaster

Thank you very much for purchasing our Skymaster ARF PRO F-100F . Please note that the photos in this instruction manual show certain views from the prototypes. Some modifications and upgrades might have taken place by the release of the model. We have tried to produce a very scale replica of this classic jet. This manual describes the assembling of " PRO" model. Speed brakes, landing gear and doors are factory installed. Before you start building and setting-up your aircraft, please make sure you have read this instruction manual, and understood it. If you have any questions, please don't hesitate to contact us. Below are the contact details:

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# ***Super Sabre arf pro***

## Assembly & Operation Manual

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# ***Super Sabre arf pro***

## **Assembly & Operation Manual**

### **INTRODUCTION**

Thank you for purchasing Skymaster arf pro Super Sabre! 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 judgment 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.



# ***Super Sabre arf pro***

## **Assembly & Operation Manual**

### ***ARF Paint***

The color finish on your Skymaster Super Sabre arf pro 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 SUPER SABRE ARF PRO***

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.

The rudder and clear canopy are not installed. It is best to install these components after painting was done.



# ***Super Sabre arf pro***

## **Assembly & Operation Manual**

### ***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.

Inspect the live hinges on a regular basis. If some cracks occur please repair asap with special hinge tape available from Skymaster or its dealers.



# ***Super Sabre arf pro***

## Assembly & Operation Manual

### Tools and Adhesives

#### Tools etc:

This is a fairly quick and easy plane to build, for a jet model, not requiring difficult techniques or special equipment, but even the building of Skymaster aircraft requires some suitable tools! You will probably have all these tools in your workshop anyway, but if not, they are available in all good hobby shops, or hardware stores like "Home Depot" or similar.

1. Sharp knife (X-Acto or similar)
2. Allen key set (**metric**) 2.5mm, 3mm & 5mm
3. Sharp scissors, curved type for canopy
4. Pliers (various types)
5. Wrenches (**metric**)
6. Slotted and Phillips screwdrivers (various sizes)
7. Drills of various sizes
8. Battery drill and Dremel tool (or similar) with cutting discs, sanding tools and mills
9. Sandpaper (various grits), and/or Permagrit sanding tools (high quality - recommended)
10. Carpet, bubble wrap or soft cloth to cover your work bench (most important !)
11. Car wax polish (clear)
12. Paper masking tape
13. Denaturized alcohol, Acetone, or similar (for cleaning joints before gluing)

#### Adhesives:

Not all types of glues are suited to working with composite parts.

Here is a selection of what we normally use, and what we can truly recommend. Please don't use inferior quality glues - you will end up with an inferior quality plane, that is not so strong or safe. Jet models require good gluing techniques, due to the higher flying speeds, and hence higher loads on many of the joints. We highly recommend that you use a slow cured epoxy for gluing highly stressed joints, like the hinges and control horns, into position and the most commonly used is 'Aeropoxy' (Bob Violett Models, USA). The self-mixing nozzles make it easy to apply exactly the required amount, in exactly the right place, and it will not run or flow onto places where you don't want it! It takes about 1 - 2 hours to start to harden so it also gives plenty of time for accurate assembly. Finally it gives a superb bond on all fibreglass and wood surfaces. Of course there are many similar glues available, and you can use you favorite type.



1. CA glue 'Thin' and 'Thick' types. We recommend ZAP, as this is a very high quality.
2. ZAP-O or Plasti-ZAP, odourless (for gluing the clear canopy)
3. 30 minute epoxy (stressed joints must be glued with 30 min and NOT 5 min epoxy).
4. Aeropoxy/Loctite Hysol 3462 or equivalent (optional, but highly recommended)
5. Epoxy laminating resin (12 - 24 hr cure) with hardener.
6. Milled glass fibre, for adding to slow epoxy for stronger joints.
7. Micro-balloons, for adding to epoxy for lightweight filling.
8. Thread-locking compound (Loctite, or equivalent)

At Skymaster we try our best to offer you a high quality kit, with outstanding value-for money, and as complete as possible. However, if you feel that some additional or different hardware should be included, please feel free to let us know.



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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.





# ***Super Sabre arf pro***

## **Assembly & Operation Manual**

### **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 F100 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...**

### **Accessories**

The full size F100 gear main gear doors are always closed. Accept when retracting. A special air or electronic sequencer is needed for this option.

1. 2 DS8511 servo's for the elevator.
2. 1 DS8511 for rudder.
3. 2 DS8511 servo's for ailerons
4. 2 DS8511 servo's for flaps
5. 1 JR8511 steering servo.
6. 3 Standard JR577servos for Landing Gear, Door and Wheel Brake valves or check next line.
7. 1 Airpower EV5U valve + 1 x EV2U valve for landing gear + doors + brakes
8. 1 EV2U valve for speed brake
9. Pneumatic support set for landing gear (air tubing, valves, Tee's, fill valves, air tanks etc.)
10. Turbine motor, with thrust range between 16kg and 18kg, with ECU, fuel pump, battery and solenoid valves, mounting strap etc. One of the common choices is the JetCat P160sx.
11. Fuel tubing, Hopper tank (or BVM UAT), festo fittings, fuel filters, fuel tube clamps etc.
12. Cable ties in various lengths. Cable management parts, Aluminum tape, safety clips etc.

***Did you understand everything in this manual completely?  
Then, and only then, let's start assembling your F-86.  
If not, please read it again before you start the assembly.***



# ***Super Sabre arf pro***

## **Kit Contents**

### **Assembly & Operation Manual**



## **F100F ARF PRO Glass Contents:**

1. Right wing including L/G + Doors installed. Include flap + aileron (F100F01)
2. Left wing including L/G + Doors installed. Include flap + aileron (F100F02)
3. Canopy frame (F100F03)
4. Fuselage front including nose gear + door installed. Including 3 door cylinders installed And speedbrakes installed (F100F04)
5. Fuselage rear (F100F04A)
6. Fin + Rudder (F100F05)
7. Right flying stab (F100F06)
8. Left flying stab (F100F07)
9. Clear canopy glass (only on white model) (F100F08)
10. Carbon main spar (F100F9)
11. Inlet ducting assembly (F100F10)
12. Tailcone (F100F11)
13. Probe (F100F12)



# Super Sabre arf pro

## Assembly & Operation Manual

### OPTIONAL PARTS



Photo 1

Sabre drop tanks.  
Sabre pylons.

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 2



Photo 3

Fuel Tank (3) 5.4L

Pushrod Set



Photo 4



Photo 5

Airpower Optional 5 in 1 Electronic  
Valve & Sequencer

Control Brake, Gear and Doors



Photo 6

Stainless Steel Tail  
Pipe

Cockpit



Photo 7

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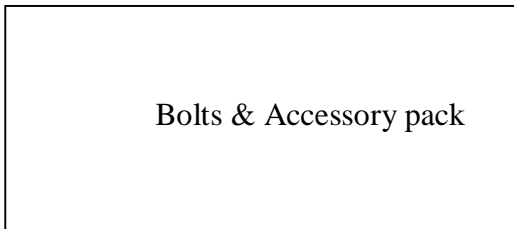
# ***Super Sabre arf pro***

## Assembly & Operation Manual



**Photo 8**

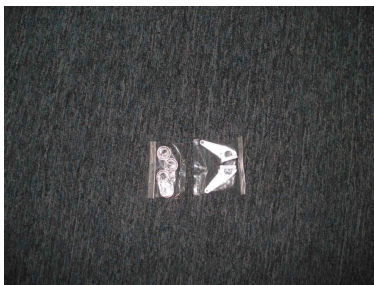
Servo mounting hardware



Bolts & Accessory pack



**Photo 9**



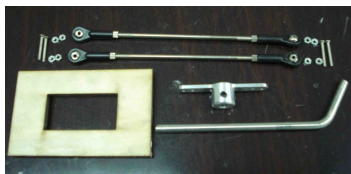
**Photo 10**

Belcrank wire

Belcranks (3)



**Photo 11**



**Photo 12**

Rudder pushrod set



**Photo 13**

Tygon Tubing

Tank Hardware



**Photo 14**



# ***Super Sabre arf pro***

## Assembly & Operation Manual

### CONTROL LINKAGES



Photo 15

**Flaps :** 80mm (2)

**Aileron :** 75mm (2)

**Elevator :** 100mm (2)

**Rudder :** 230mm

**Steering:** 50mm

**Note:** Prototype & production lengths may vary.

### 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.

- ☐ Check operation of Landing gear and doors.
- ☐ Remove factory self tapping screws and replace with high quality screws.
- ☐ Inspect landing gear blocks. Make sure all parts are glued.
- ☐ Fit quick disconnects to air line.
- ☐ Inspect wheels and oleos.
- ☐ Check if all bolts are secure.
- ☐ Check the operation of brake.
- ☐ Remove and mark servo covers and inspect plywood. Use Dremel tool to clean out some glue and ply to make sure servos will fit well.

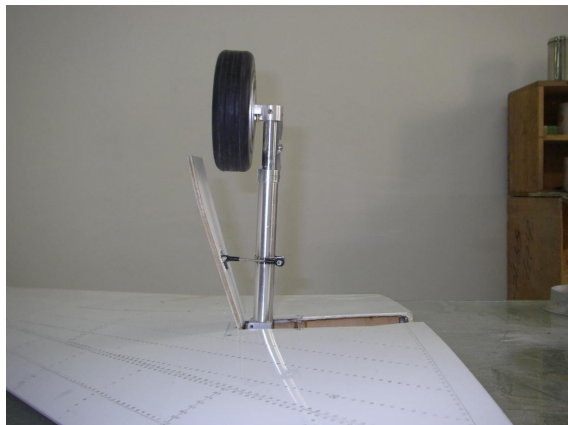


Photo 16

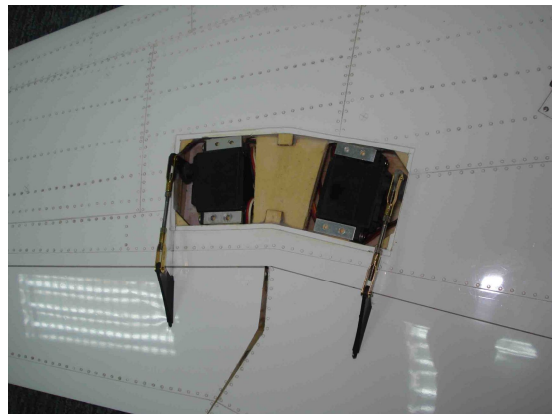


# ***Super Sabre arf pro***

## Assembly & Operation Manual



**Photo 17**



**Photo 18**

- ☐ Fit 2 L-shape servo brackets to 2 x JR DS8511 (flap + aileron) servos.
- ☐ All servos must be mounted with horns facing up. For the flaps and ailerons the horn must be furthest from the control surface and the two servos must be mirrored.
- ☐ Secure servo horns and centre servo's with TX.
- ☐ Secure 2 x extension wires. Use safety clips on joint.
- ☐ Secure servo's to wing. Use 4 servo screws.
- ☐ Draw a line perpendicular to hinge line.
- ☐ Mark locations for flap and aileron horns. Stick masking tape over area to be cut.
- ☐ Use Dremel to cut slot for control horns.
- ☐ Use 30 minute epoxy to glue control horns
- ☐ After epoxy cured, insert pushrods and secure safety clips.
- ☐ Check operation of flaps and ailerons.
- ☐ Secure servo covers with 4 x 1mm set screws. Cut oval slots to clear pushrods.

NOTE: If you have purchased the all white F100, it will be necessary to fit wings to fuselage to inspect the gap between fuselage and flap. Use a good body filler and primer to correct this gap. Check that flap clear fuselage for all travel positions.

# ***Super Sabre arf pro***

## Assembly & Operation Manual

### 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. All linkages are hidden. Mark ✓ each step.



Photo 19



Photo 20

- ☐ Locate all parts for this section
- ☐ Trial fit flying stabilizer to fuselage and check operation.
- ☐ Centre servo and bolt metal servo arm to servo. Secure servo with 4 screws.
- ☐ Slide Teflon washer over shaft and push shaft through bearing mount and belcrank.
- ☐ Make sure Teflon washers also between belcrank and bearing mount.
- ☐ Secure belcrank bolts. Make sure there is no side way movement and that the operation is smooth.
- ☐ Make up pushrods of equal length.
- ☐ Sit pushrod between servo and elevator belcrank. Check for no binding.
- ☐ Fit extension leads. Use safety clips on joints. Secure wire as far away from tailpipe as possible. Make sure wires are very well secured.



# ***Super Sabre arf pro***

## Assembly & Operation Manual

### 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 21

- ☐ Locate all parts needed for this section.
- ☐ Make up rudder pushrods. Ball joints are required.

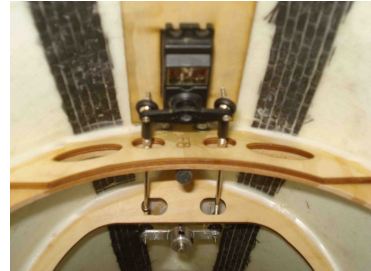


Photo 22

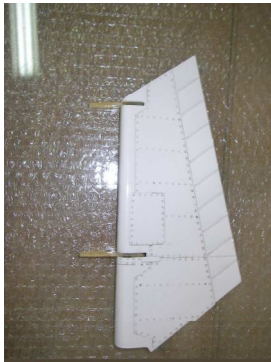


Photo 24

- ☐ Fit wire belcrank in position. Fit belcrank over wire and mark location of set screws.
- ☐ Cut flat sections into wire and secure belcrank to wire with loctide.
- ☐ Fit servo to servo plate.



Photo 23



Photo 25

- ☐ Feed pushrod through formers and secure pushrods to servo horn and belcrank. Use safety clips.
- ☐ Make sure servo horn and belcrank form 90 degree angle.
- ☐ Glue rudder hinges (glass board) into slot in fin. Make sure no glue on hinge line. When cured, check operation of rudder.
- ☐ Trial fit fin and rudder to fuselage.

NOTE: If you require a removable fin, secure fin with cap screws located on 2 clamps.

Check belcrank fit into rudder post. Make sure no play and no Slop in rudder system.

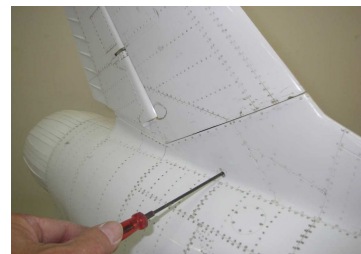


Photo 26





# ***Super Sabre arf pro***

## Assembly & Operation Manual

### FUSELAGE

Make sure you have a good stand for fuselage. You will need to assemble the rest of the Sabre on this stand.



Photo 27

- ☐ Locate the 4 x M5 bolts and washers for fuselage.
- ☐ Align fuselage and secure with 4 bolts. Check fit all around seem for sound joined.
- ☐ Route 3 servo wires and 2 air lines neatly along inner skin of fuselage.
- ☐ Install servo male and female plugs for 3 servo wires.
- ☐ Install 2 x quick disconnects for air line.

- ☐ Turn fuselage upside down
- ☐ Inspect air brake. Route air line to nose.
- ☐ Inspect main gear doors. Route air line to nose.
- ☐ Remove the nose retract unit. Check all bolts.
- ☐ Refit nose retract unit.
- ☐ Install JR DS8411 steering servo. Secure with 4 screws.
- ☐ Centre servo and install push –pull wire.
- ☐ Retract unit and check operation of unit. Close the door and check clearance all around wheel.

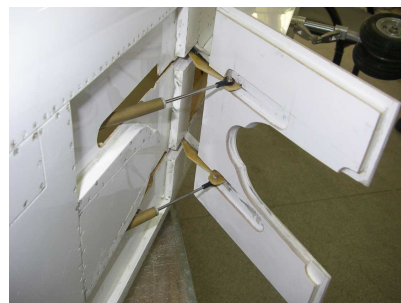


Photo 28



Photo 29



Photo 31



Photo 30

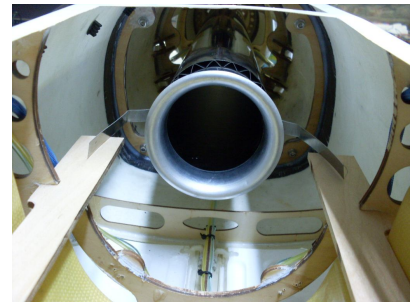


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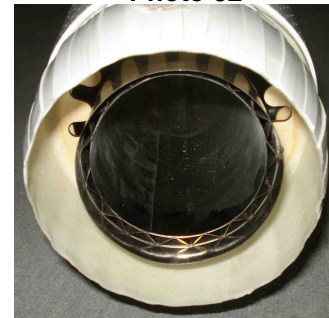
## Assembly & Operation Manual

### **TAIL PIPE**

- ☐ Drill holes in mounting lugs of tail pipe.
- ☐ Make 90 degree bend in each mounting lug.
- ☐ Slide tail pipe through nose into position. Note: The rear of pipe must just exit the rear former by 25mm.
- ☐ 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.
- ☐ Glue tail cone.



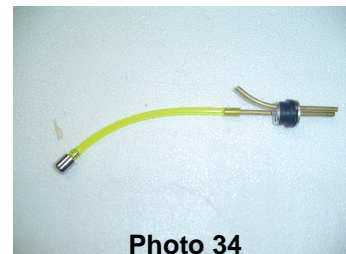
**Photo 32**



**Photo 33**

### **FUEL CELLS**

- ☐ Rinse 2 fuel tanks and check for leaks.
- ☐ Make up 2 fuel line fittings. Make sure clunk moves freely and reaches all corners of inside of tank.
- ☐ Fit to tanks. Mark pipes for "inlet" and "outlet".
- ☐ Rough the outside of tanks. Glue balsa spacers to bottom of tanks,
- ☐ Use silicon glue and glue 2 tanks in position.
- ☐ Plumb tanks using diagram on next page.
- ☐ Fill and drain tanks with fuel pump and check no air bubbles in system until last drop is drained. A good plumbing will secure good turbine operation.



**Photo 34**



**Photo 35**



**Photo 36**



**Photo 37**

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## Assembly & Operation Manual

### FUEL CELL DIAGRAM

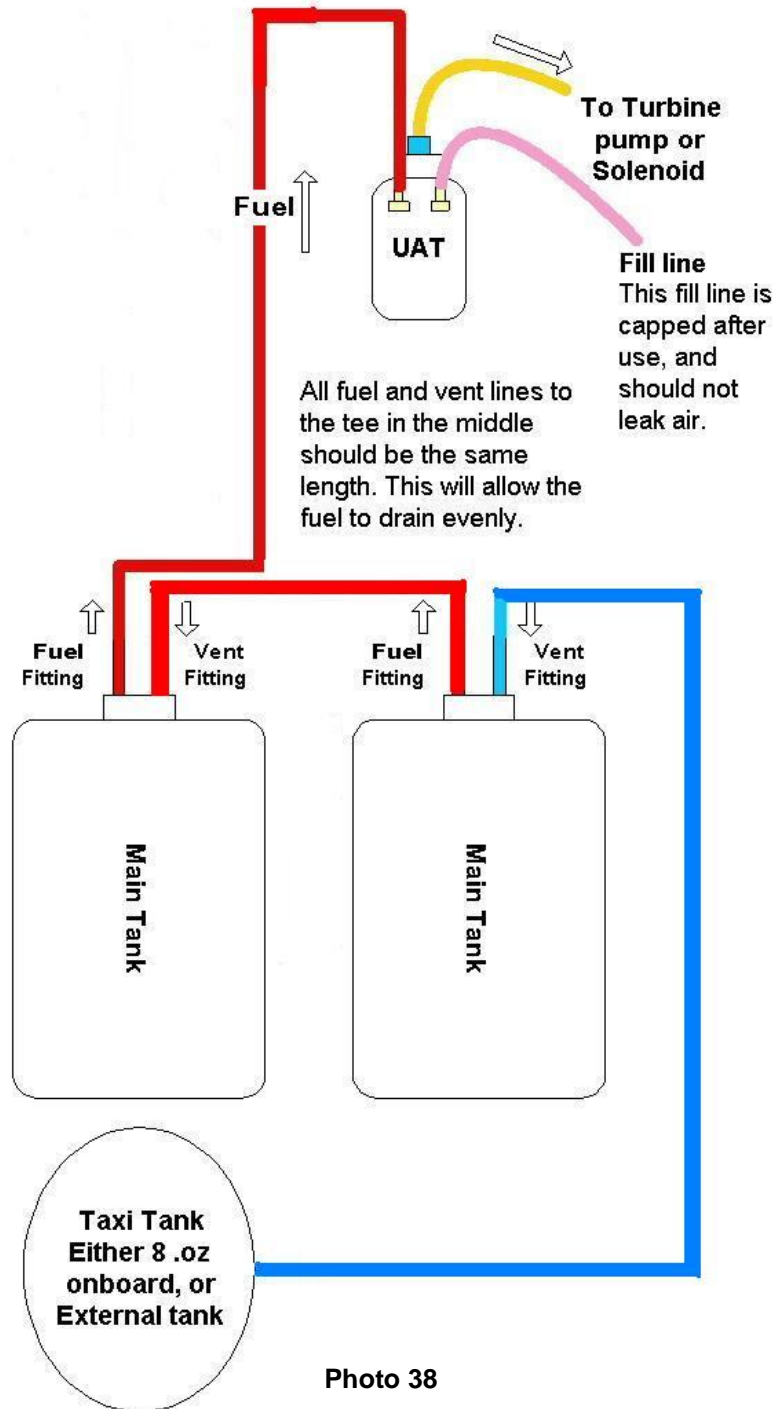


Photo 38

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## Assembly & Operation Manual

**AIR SYSTEM** There are 2 options available for the air system: Mechanical or Electronic. For mechanical you will need 3 x 2 way and 1 x 1way valve with 4 servos and sequencer. For electronic you will need 1 x EV5U and 1 x EV2U.

- ☐ Glue the air tanks with silicon glue in the front nose section. I have installed the 1 large tanks for operation of gears and doors.
- ☐ Fit the 2 filler valves and 2 pressure gauges onto accessory tray. Easy access is needed. side of fuselage.
- ☐ Plumb the landing gear, door and brake system by using color air tubing. T all same color tubing together until a single pipe emerge. Fit electronic EV5U valve in front main tanks.
- ☐ Route all 5 pipes to EV5U.
- ☐ Plumb speed brake.
- ☐ Secure the 2way electronic valve adjacent to EV5U. This will be for speed brake.
- ☐ The air system will consist of :

Air up, Air down retracts (2)  
Air up, Air down doors (2)  
Air out brakes (1)  
Air up, Air down speed brake (2)  
Air in (2) Total of 9 pipes



Photo 39

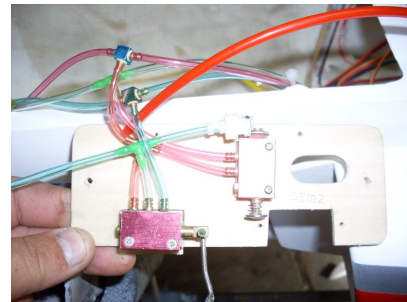


Photo 40 Mechanical valves

- ☐ 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.



# ***Super Sabre arf pro***

## Assembly & Operation Manual

- For scale functions such as speed brake and sliding canopy you will 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 41 2 way

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## AIR DIAGRAM

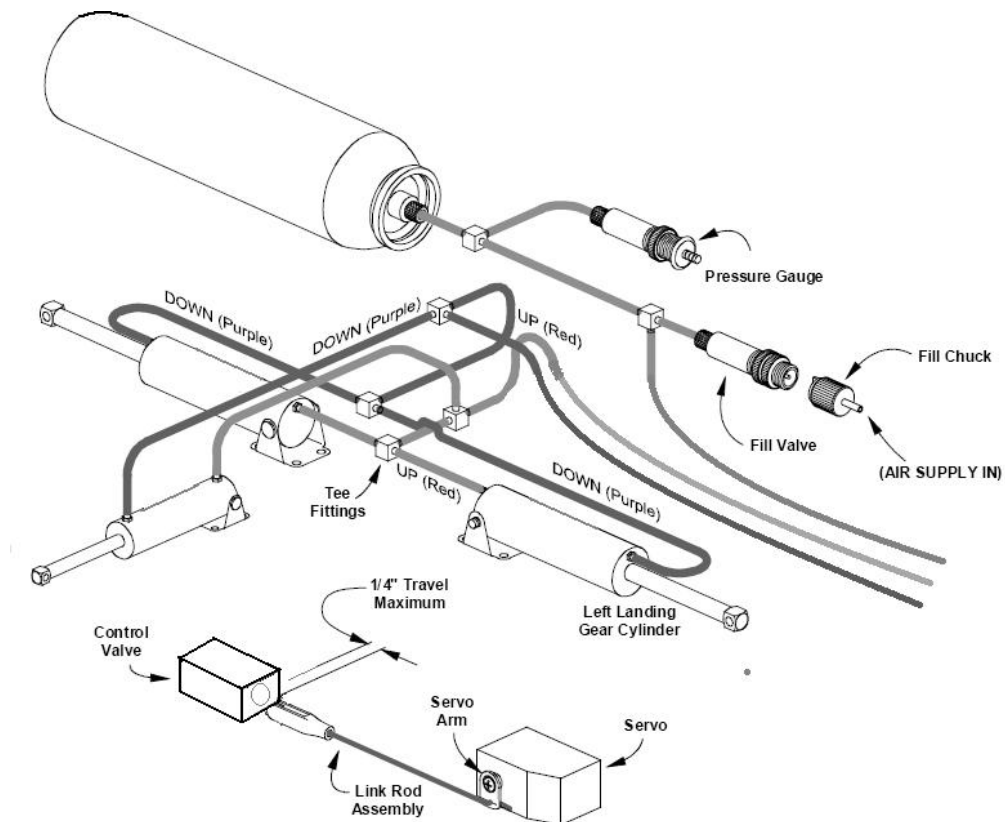


Photo 42 Diagram for retracts

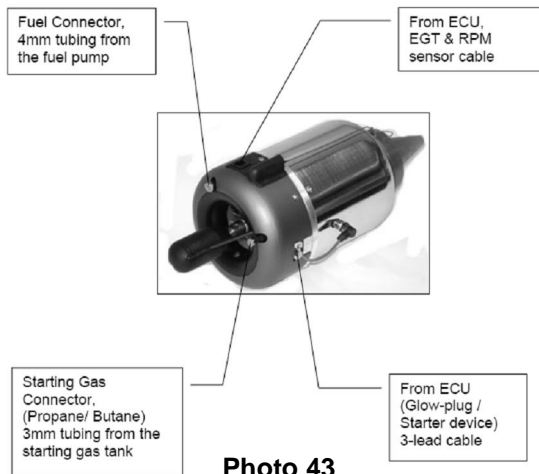




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### TURBINE INSTALLATION



- Please follow the instructions supplied with your turbine.
- Secure turbine to turbine rail via hatch 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 Li Po battery in nose. I always put a fuse holder inline with power cable.



Photo 44

Electrical connection pictures

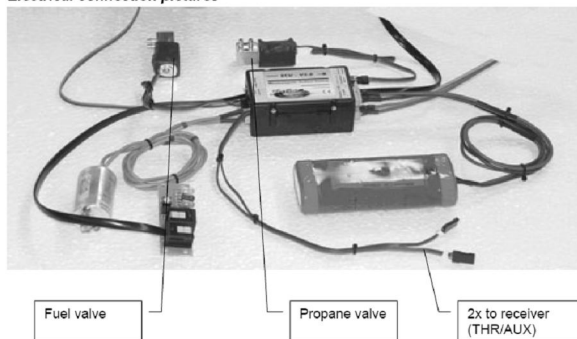


Photo 45



Photo 46

- Trial fit inlet. Cut if needed. When happy glue with silicon. NOTE: Make inlet removable for easy maintenance.



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### **COCKPIT AND CANOPY (white)**

- ☐ Cut the epoxy glass and leave only canopy frames.
- ☐ Sand and file frames.
- ☐ Paint the frame.
- ☐ Trace the shape of canopy and cut to fit. Glue with canopy glue. NB—when glueing glass to frame it is important to do so with frame fitted to fuselage. The frame will loose shape if glued outside fuselage and will not fit.
- ☐ Cut the cockpit to clear frame and fuselage.
- ☐ Glue cockpit to canopy frame.



Photo 47





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### **EQUIPMENT INSTALLATION INTO SABRE**

□ 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 Sabre basically consist of 6 circuits!

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

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

- The Super Sabre will come out tail heavy if you do not plan installation. It is very important to install all equipment as far forward as possible.
- I have installed 2 x RX + 2 X ECU batteries around inlet.
- I have installed a UAT in nose section. This will always be full of fuel and will help with the final adjustment of CG.
- Please wire the accessory tray outside aircraft. It is designed to slide and lock in position.

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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.

When inserting the main spar into wing, make sure it only enters the amount required. If you can slide complete main spar into 1 half of wing, it means the stopper were removed. Please measure correct distance for main spar and secure spar so that it does not slide more to one side than other. It must be symmetrical to both sides.

Travel adjust measured at root. Use Expo to suite your style.

1. Elevator	45mm	2. Rudder	20mm
3. Aileron	18mm	4. Flaps take off	25mm
5. Flaps landing	70mm		

**NOTE :** Make sure flaps travel same. Flaps should be deployed in landing circuit only below 90mph.

CG 330mm—360mm from leading edge at root. Empty tanks, UAT full and wheels down. The CG can be changed to best fit your flying style. A forward position is safe and nose heavy configuration. Lot of elevator needed for take off and turns. **WARNING: Do not move CG back unless you are experience and have some feel of model before!**

<input type="checkbox"/> Weight	Dry weight will be between 30 and 40 lbs depending equipment.
<input type="checkbox"/> PSI	80—100 psi for pneumatic system
<input type="checkbox"/> Power	Make use of battery management system. Double up on batteries and make sure all wired can carry current needed to operate.
<input type="checkbox"/> TX RX	Do a complete range check before flight. Do this with turbine running. Follow manufacturers instructions.
<input type="checkbox"/> Speed	Set the maximum speed to 180mph! The prototype were tested with Jetcat P-120 turbines. More powerful turbines require extra care and extra reinforcing.
<input type="checkbox"/> Timer	A timer can save your model. Get into the habit of programming the timer.



# ***Super Sabre arf pro***

## **Assembly & Operation Manual**

### **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. F100 have very good ground handling with wide main gears.

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 50m down the runway. 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.

### **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. Do not use speed brakes for landing on maiden. When you are happy and more experienced the speedbrakes will slow model down faster.

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 Super Sabre for your need!

We at Skymaster wish you many happy flights with your Super Sabre! Add some more scale options like drop tanks etc. Add landing lights and parachute and your Super Sabre will be just like real thing.

Anton Lin and Skymaster Team!



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## **OPTIONAL SCALE PARTS**

The following items are available from Details4Scale. Please contact them on their online web store: [www.details4scale.com](http://www.details4scale.com)

- ☐ Scale light system
- ☐ Bombs and missile rack
- ☐ Parachute system

