

ARF PLUS PRO F14 TOMCAT

1/5 Scale Almost-Ready-To-Fly RC Jet
Assembly and operations manual

Specifications

Type : T.A.V.S ARF PRO
Scale : 1/7.5
Length : 100": (2550mm)
Span : 105": (2665mm)
Weight : 20—25 Kg (44-54Lbs)
Engine : 2 x (10—14) Kg
Radio : 12 Channel 5—13servo's)



The F-14 “Tomcat” by Skymaster

“I feel the need, the need for speed”...” I gotta send you two clowns to Miramar...” ** If these words bring back memories it is probably why you just bought a F14 from Skymaster. We have spend many years in R&D to not only produce a scale model, but also a model with great flying characteristics! We hope you enjoy your Tomcat! Please note that the photos 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. Many scale options are included with your model including operating canopy, speed brakes, spoilers and swing wing mechanism! This manual describes the assembling of “PRO” model. Opening canopy, 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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INTRODUCTION

Thank you for purchasing Skymaster arf pro F14! 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 jet 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 F14 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 F14 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.



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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 FUELED 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!

We recommend to REMOVE the elevators and wings for transport. It will only take a couple of seconds.

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.



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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.
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)



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. 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.



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.



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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 F14 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.

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

1. 2 DS8911 servo's for the elevator.
2. 2 DS8911 for rudder
3. 2 DS8911 servo's for flaps
4. 2 DS 8911 for spoilers
5. 4 DS 3421 for slat (or ds8911with some modification)
6. 1 JR8511 steering servo.
7. 3 x EV2 valve + 1 x EV1U valves + sequencer for landing gear + doors + brakes
8. 1 EV2U valve for speed brake
9. 1 EV2U valve for opening canopy
10. Powerbox Royal with build in matchbox function.
11. Pneumatic support set for landing gear
12. 2 x Turbine motors, with thrust range between 10kg and 14kg, with accessories.
13. Fuel tubing, Hopper tank (or BVM UAT), festo fittings, fuel filters, fuel tube etc.
14. Cable ties in various lengths.
15. Radio system with S-bus or X-bus technology (will simplify the radio installation)

***Did you understand everything in this manual completely?
Then, and only then, let's start assembling your F-14. If not, please read it again
before you start the assembly.***

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Kit Contents



Picture A

F14 ARF PRO Contents:

- Picture A Fuselage front and rear section. Swing wing mechanism installed
Fin + Rudders & nose cone & tail cone.
Nose gear + Main gear + doors installed + speed brake installed
Wings left and right (scale or normal)
Elevator left and right
Ventral fins + tail hook + nose "chin"
Canopy assembly + glass



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OPTIONAL PARTS



Photo 1

Scale nose pod

4 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 (Front)

Accessory Set



Photo 4



Photo 5

Airpower 2way and 1 way valve & Sequencer

Control Brake, Gear and Doors



Photo 6

Stainless Steel Tail Pipe (L+R)

Cockpit



Photo 7

Skymaster
ARF PLUS PRO

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Photo 8

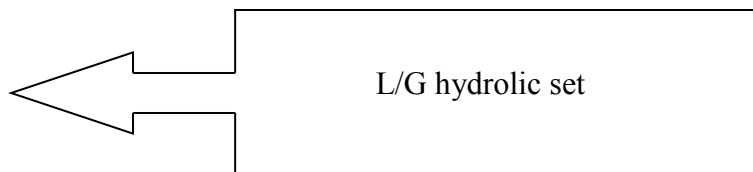


Photo 9

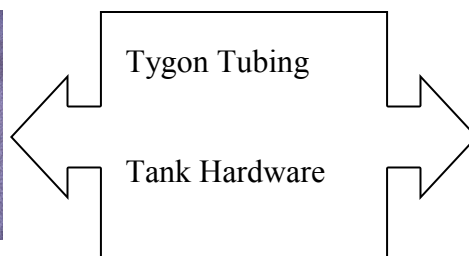


Photo 10



Photo 11

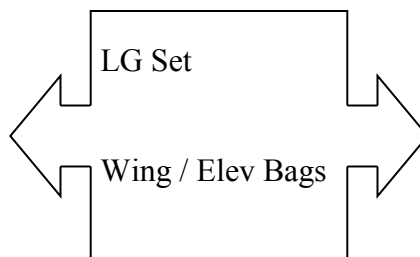


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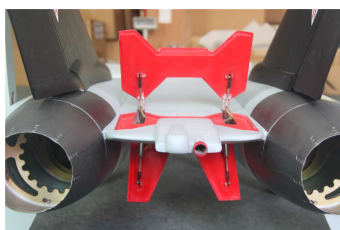


Photo 13

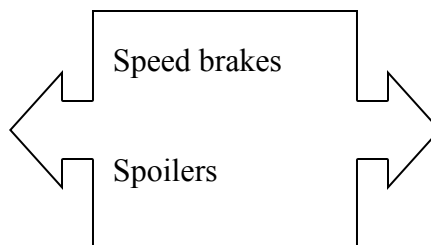


Photo 14

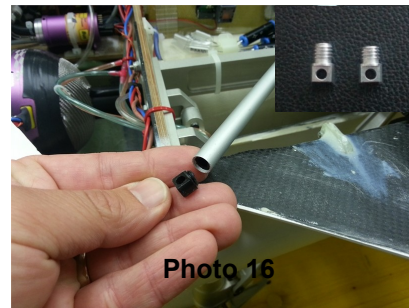
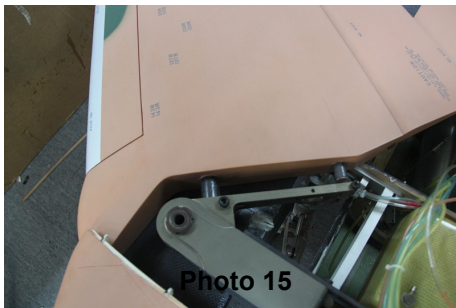


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SWING WING

We recommend that the wings be removed for transport. ***The wings must be in the swept back position to remove or refit to fuselage.*** To remove and refit the wing it is required to loosen 3 bolts only and actuator fitted to wing. The 3rd bolt will appear as wing is extended. The reason for removing wing for transport is that the plastic fitting on actuator may be damaged if hit in transport. Later models are supplied with aluminum fitting.



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. There are TWO options : Normal wing or scale wing. If you chose the normal wing without flaps , spoilers and slats, you may skip this step. No work is required on wings. Mark ✓ each step.



Photo 17

- Remove and mark servo covers and inspect plywood. Use dremel to clean out some glue and ply to make sure servos will fit well.



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- *NOTE: The spoilers are factory fitted. Please go over each bolt and make sure they are loctide. Do not tighten too much as it will restrict movement.*

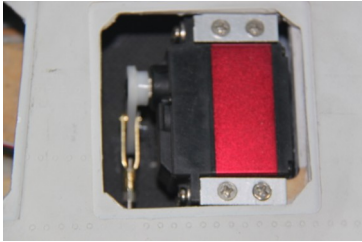


Photo 18

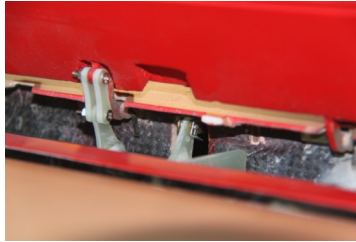


Photo 19



Photo 20

- Locate all items needed to complete wing. Fit 2 L-shape servo brackets to DS8911 servos.
- Spoiler servo must be mounted with horns facing top surface. The horn must be furthest away from control surface and furthest away for root.
- Secure servo horns and centre servo's with TX.
- Secure extension wire. Use safety clips on joint. Secure servo's to wing. Use 4 servo screws.

NOTE: SLAT MUST BE DONE BEFORE FLAP

- Fit 2 x L-brackets to JR DS3421 slat servo. Connect servos and do radio setup. Note that outer slat must travel less than inner slat. If your radio can not do—use different pins on horn! (savox 1250 shown—same specs as JR)
- Fit the other servo to inside of flap servo hole. (P22)
- Make 2 pushrods for slat.
- Dremel slots to clear pushrods.
- Mark location of slat horn. Dremel slot and glue horn.
- Fit pushrods. Check travel. NOTE : travel must differ between inner and outer servo. See p23 and p24.



Photo 21

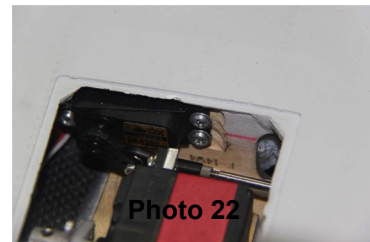


Photo 22

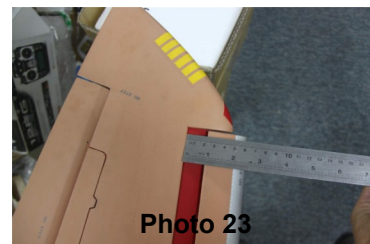


Photo 23



Photo 24



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Photo 25



Photo 26



Photo 27

- ☐ Locate all items needed to complete flaps. Fit 2 L-shape servo brackets to DS8911 servos.
- ☐ Connect servos and do radio setup.



Photo 28

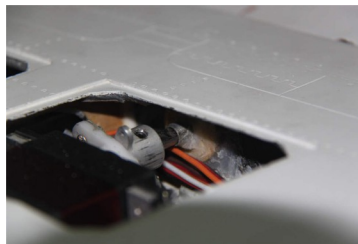


Photo 29



Photo 30

- ☐ Locate flap belcranks (p25). Remove the horn from belcrank.
- ☐ Fit the flap belcrank horn to servo horn. Drill 2 holes and secure with bolt and loctide.
- ☐ Insert belcrank wire through sleeve. Fit to slot in flap.
- ☐ Mark location of servo and drill pilot holes.
- ☐ Fit horn assembly over belcrank wire and secure with allen key. Use locktide.
- ☐ Check operation of flap. Max deflection 45 deg.
- ☐ REPEAT ALL STEPS FOR OTHER WING.



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ELEVATORS

NOTE: Use some protective foam on the work bench to protect the paint surface from unwanted dents. A removable elevator mechanism is installed. Mark ✓ each step.

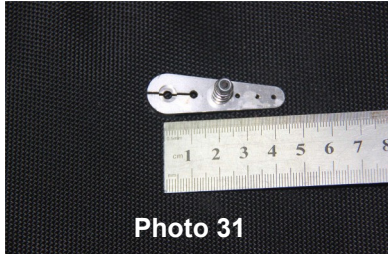


Photo 31



Photo 32



Photo 33

- Make up elevator horn. 1pr semetrical. (p32)
- Trial fit JR8911 servo to elevator mount. The depth of the servo is **EXTREMELY IMPORTANT**. We have deigned the mount for 8911 servos. Some shimming may be needed to get correct height. The elevator horn must be as close as possible to fuselage skin. When happy secure servo with 4 screws.
- Fit servo horn and centre servo using radio. Remove horn. Locate servo cover and mark location of horn. Drill hole to clear horn, refit horn and cover.



Photo 34



Photo 35

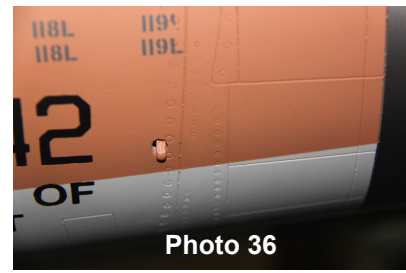


Photo 36

- Cut a slot slightly over size in the root of elevator to hold bearing mount for elevator control. Trial fit the elevator assembly with recess mount. **NOTE: because of the angle of elevator shaft and rear fuselage, the slot WILL NOT be flush with root of elevator. Do not glue flush! (p35)**
- Mix 30 minute epoxy and fill slot in root of elevator with glue. Use some oil over the servo horn and root of elevator. This will prevent gluing horn to elevator.
- While glue still wet, fit elevator with bearing mount over servo horn and keep in position till glue set. Unclip elevator and check operation. Careful planning is needed.
- Make sure the elevator is clipped before each flight. (p36).
- Run servo wires away from tailpipe. Repeat for other elevator.

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RUDDERS

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.

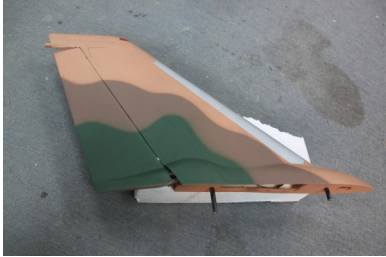


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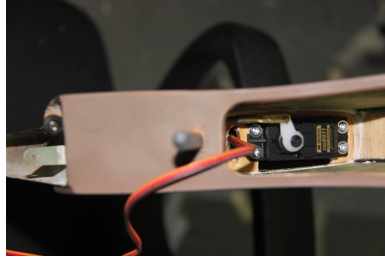


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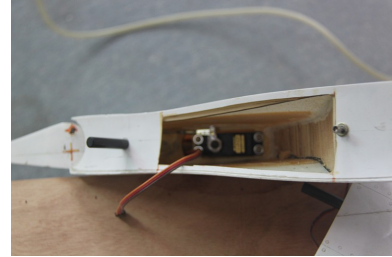


Photo 39

- ☐ Fit horn to servo and centre servo. Cut horn to clear skin of fin.
- ☐ Make up rudder pushrods (2).
- ☐ Fit servo to fin. Feed the pushrod from trailing edge and fit to servo horn.
- ☐ Trial fit rudder. Check length of pushrod. Adjust if needed.
- ☐ Use the piano wire for rudder hinge.



Photo 40



Photo 41



Photo 42

- ☐ Secure rudder horn from base of rudder. Use loctide.
- ☐ Check left and right deflection. If not enough deflection—trim fin post.
- ☐ Repeat for other rudder.

NOTE: To service rudder servo it will be necessary to remove tail pipe. Make sure all work fine before proceeding.

NB: If you install turbines 14kg and up we suggest to install the rudder linkage on outside of skin.
NO INTERNAL!



Photo 43

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FUSELAGE REAR & FRONT



Photo 44



Photo 45



Photo 46



Photo 47



Photo 48



Photo 49

- ☐ Before joining the fuselage it is necessary to tidy up the servo wires. Make sure wires are secure and will not touch the tailpipe.
- ☐ Check operation of landing gear and doors.
- ☐ Now fit the fins to fuselage.
- ☐ Slide tailpipe into rear section. The pipes are marked for left and right.
- ☐ The pipes have 2 studs to be bolted to engine mount. The rear of pipe have a “stopper” that will press against the tail cone. Adjust the length of stud to make sure pipe fit snug and no play is felt. The tail cone is a “twist” fit.
- ☐ Route 4 servo wires along inner skin of rear fuselage.
- ☐ Speed brake air tubing and LG + Door air tubing will all be factory fitted. Route to front of rear fuselage.
- ☐ The main tanks will be factory installed.
- ☐ Install JR DS8511 steering servo. Bolt with 4 x M3 bolts and lock nuts.
- ☐ Centre servo and install pushrod.

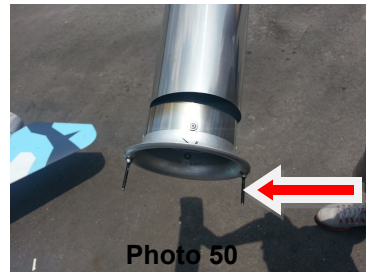


Photo 50

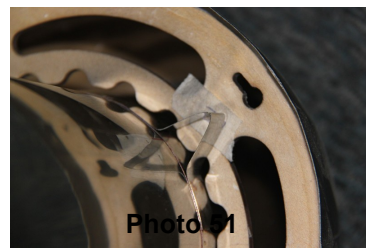


Photo 51

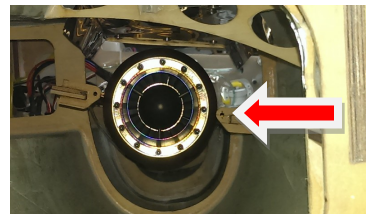


Photo 52



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FUSELAGE JOINT

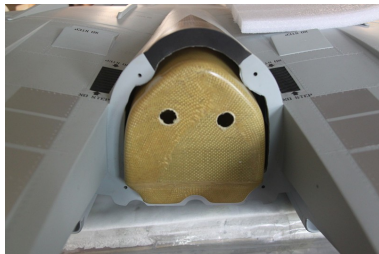


Photo 53

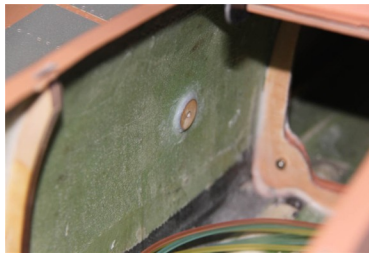


Photo 54



Photo 55

- ☐ Fit front tank before you join the fuselage.
- ☐ Route all air tubing and servo wires clear of tank.
- ☐ Secure front fuselage with 4 x M4 and 2 x M3 bolts.

FUEL CELLS

NOTE: Bad plumbing lead to flame outs. This will destroy your model. Please take your time and do a good job.

- ☐ Secure front tank in position between inlet ducts. The front tank will feed 2 hopper tanks. So you need to make 2 fittings for front tank. Each main tank will feed the centre tank.
- ☐ Plumb tank using diagram on next page.
- ☐ Fill tank and check for leaks.
- ☐ NOTE : The main tanks are factory fitted! If you would like to remove main tanks it is needed to disassemble the swing wing carbon main spar. It will take some time.
- ☐ **NB : When you put back the swing wing assembly—you musy use INCEDENCE meter to check both wings have the same incidence! If not—the F14 will not track straight.**
- ☐ Drain tank with turbine fuel pump and check no air Bubbles in system until last drop is drained. A good plumbing will secure good turbine operation.

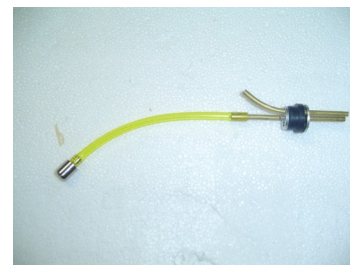


Photo 56



Photo 57



Photo 58



F14 arf pro

Assembly & Operation Manual

FUEL CELL DIAGRAM

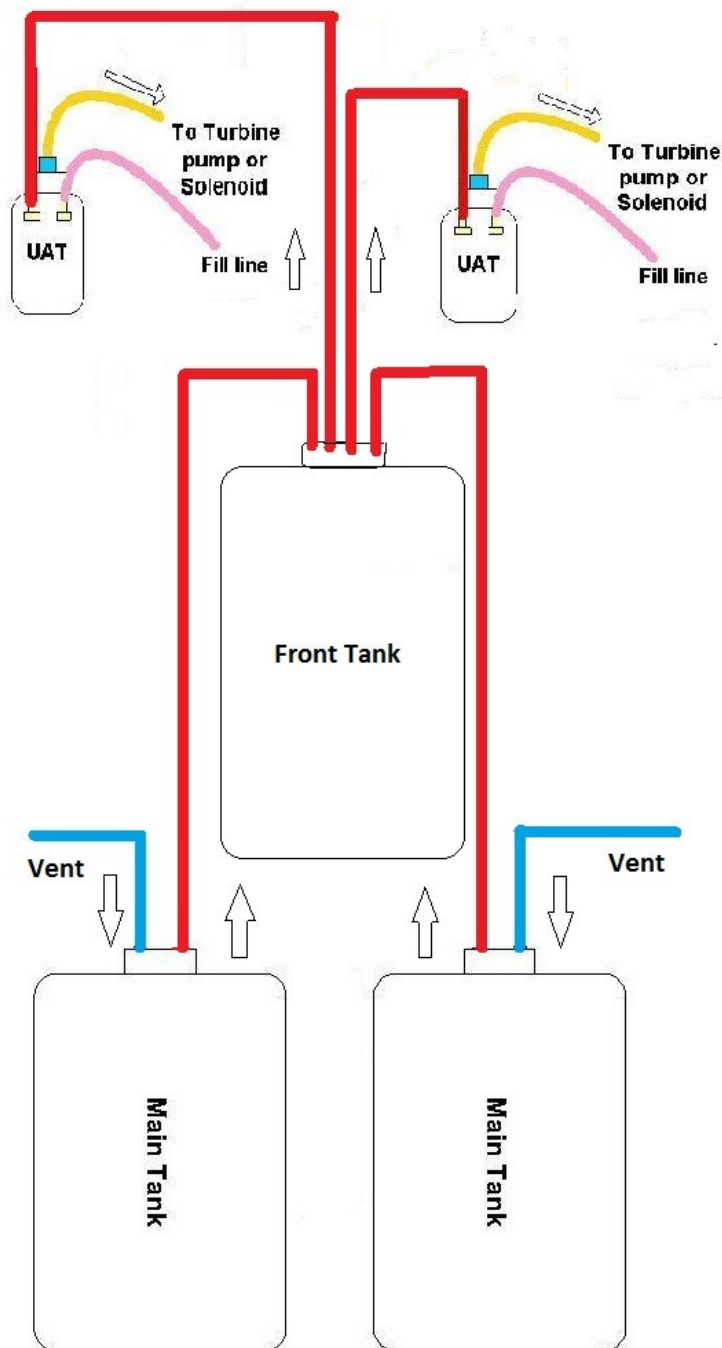


Photo 59



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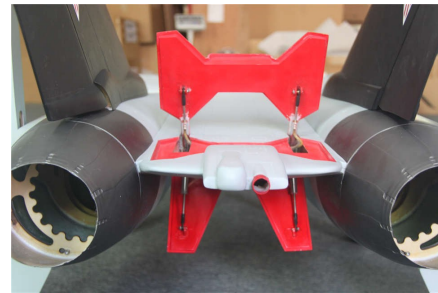
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AIR SYSTEM The f14 rear main doors and front main doors must be plumbed separate and controlled with 2 different valves using a sequencer. You will need 5 x EV2U and 1x EV1U. The f14 combines air and hydraulic fluid to operate the landing gear. All work done at factory.

- ☐ Glue the air tanks (4) in correct location with silicon
- ☐ Use quick connectors on fuselage joints to help with break up of model.
- ☐ Fit the 4 filler valves and 4 pressure gauges onto plywood 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. Fit electronic valves + sequencers on tray.
- ☐ Plumb speed brake.
- ☐ Secure 2 x 2 way electronic valves. This will be for speed brake and opening canopy.
- ☐ The air system will consist of :
 - Air up, Air down retracts (2)
 - Air up, Air down nose + front main door(2)
 - Air up, Air down rear main door (2)
 - Air out brakes (1)
 - Air up, Air down speed brake (2)
 - Air up, Air down opening canopy (2)
 - Air filler input (4)



Photo 60



Total of 15 pipes

- ☐ 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 functions such as speed brake and opening canopy you will require additional 2 way electronic valves.



Photo 61 2 way

AIR DIAGRAM

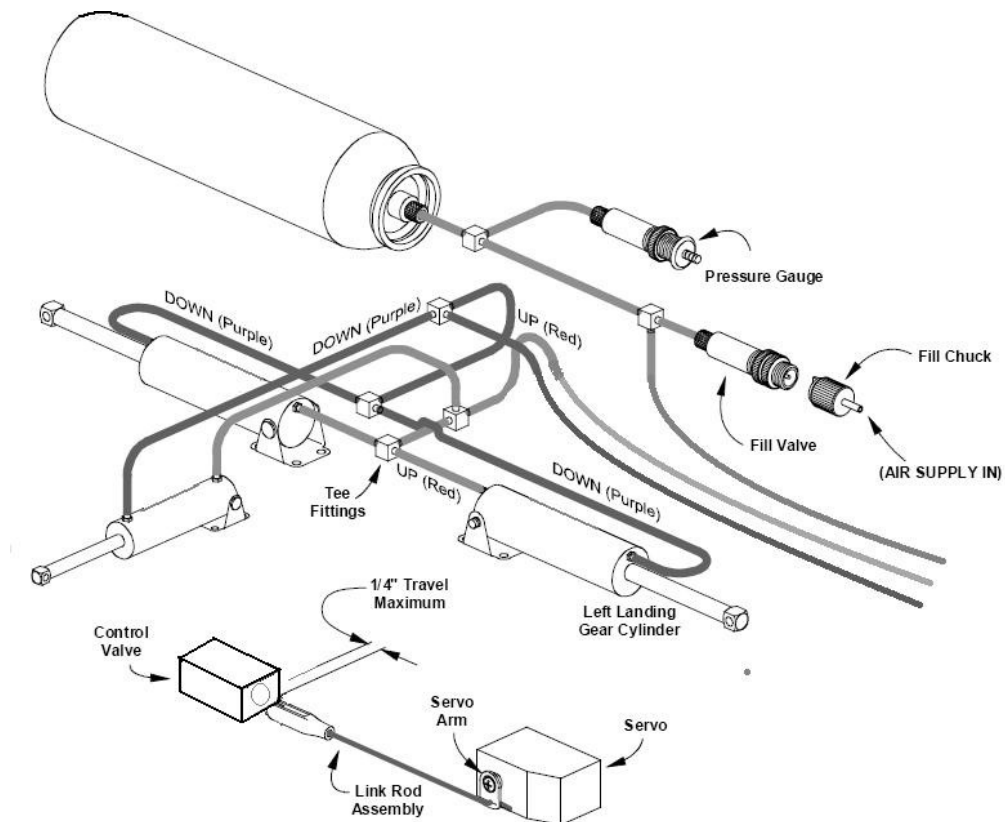


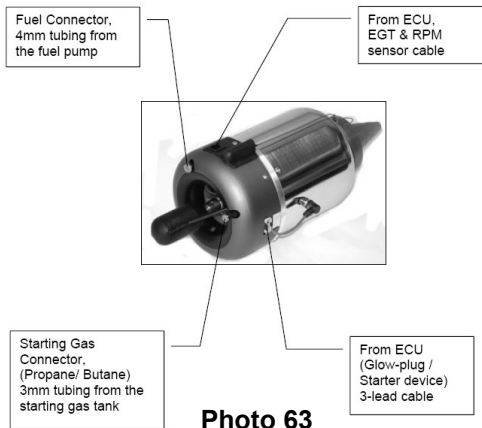
Photo 62 Diagram for retracts



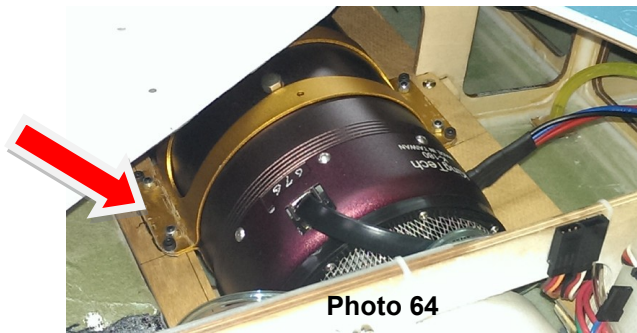
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TURBINE INSTALLATION



- Please follow the instructions supplied with your turbine.
- If you install a turbine larger than 10kg, you will need to cut the lugs of turbine to fit the rail. Also move the turbine forward to almost touch front spar. Shorten or remove middle inlet to clear turbines. Cool air must past turbine to cool tailpipe.(64,65)
- 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.
- Install NiCad or Li Po battery in nose. I always put a fuse holder inline with power cable.
- Repeat this for other turbine. Mark L&R equipment so you know exactly what ecu and what valves control what turbine.



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COCKPIT AND CANOPY (after painting)



Photo 66

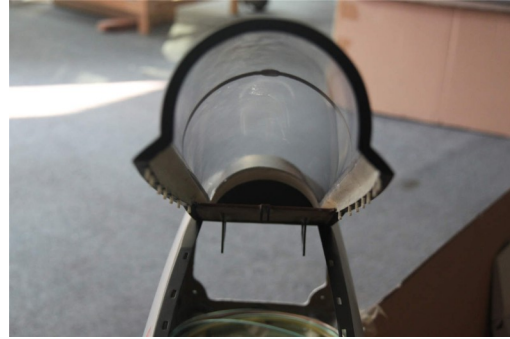


Photo 67



Photo 68



Photo 69

NOTE : The opening canopy is option. It can be ordered. All work done by factory.

- ☐ Cut cockpit to fit fuselage.
- ☐ Check that nose gear clear cockpit when retracted.
- ☐ Secure rear of cockpit with 2 screws.
- ☐ Check that canopy clear the cockpit. Trim if needed.
- ☐ Install pilot.



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EQUIPMENT INSTALLATION INTO F14

- Equipment installation is a personal venture. There is one golden rule: Do it as neat and logical as possible! This will make fault finding and service of components easier. The F14 basically consist of 7 circuits!

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



Photo 70

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. If you use S-bus technology it will simplify installation.

- The F14 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 all batteries in nose.
- I have installed a UAT before CG. This will always be full of fuel and will help with the final adjustment of CG.
- The accessory tray is under cockpit. The cone can easily be removed to gain access to batteries and filler valves. Remember the swing wing will move. Make sure the servo wires is routed for the job!



Photo 71

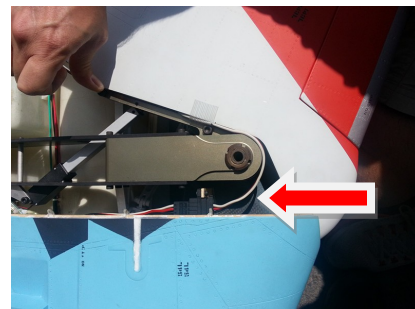


Photo 72



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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.

- | | | |
|-------------|---------------------------|----------------|
| 1. Elevator | 115mm at L/E up/down | |
| 2. Rudder | 16mm at T/E | |
| 3. Ailerons | 93mm wing forward & | 40mm wing back |
| 4. Flaps | 20 deg T-off & | 45 deg landing |
| 5. Spoiler | 100% with 60% Aileron mix | |
| 6. Slats | 10mm T-off & | 20mm landing |

NOTE : Make sure flaps and slats travel together & should be deployed in landing circuit only below 90mph with wings forward. **Do not deploy when wings are swept!!!!**

Do not change location of CG unless you are experience and have some feel of model before! We have installed a tapped hole to fit a bolt. Suspend the F14 from this 2 bolts to check cg. After maiden you can move CG back up to 25mm.

- ☐ Dry weight will be between 45 and 55 lbs depending equipment.
- ☐ 100—120 psi for pneumatic system
- ☐ Make use of battery management system. Double up on batteries and make sure all wired can carry current needed to operate.
- ☐ Do a complete range check before flight. Do this with turbine running. Follow manufacturers instructions.
- ☐ Set the maximum speed to 160mph! The prototype were tested with Kingtech K-180 turbines. We recommend no larger than 14 kg turbine. This will be more than enough power for unlimited vertical performance. **If you install 14kg up we suggest use outside linkages on rudder!!**
- ☐ Set a timer . It can save your model.
- ☐ Picture show CG. This setup is perfect for normal operation with slight nose heavy.
- ☐ Picture 74 show elevator neutral position.

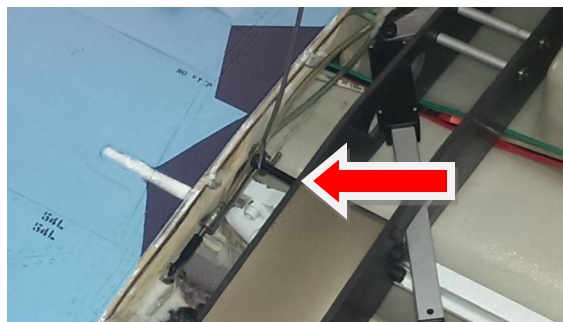


Photo 73



Photo 74



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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. Select take off flap or flight mode 1 and open throttle. Gently pull back on stick 40m down the runway. Raise the flaps and gear at safe altitude. If the ailerons feel sluggish—select higher rate. Land and adjust to fit your need. If you have a flame out on 1 turbine. Do not panic! We have designed the tail pipes that single turbine flight is possible. Land as soon as possible. **Do not do aerobatics after loss of one turbine!**

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. It is very important to get the nose up for landing. Use elevator to get nose up and throttle to change altitude. You will need to work out a glide slope to fit your runway. Just before touch down—pull more elevator to flare model. If you do not get the nose up—it will be difficult to stop in time. Do not pull too much elevator in glide slope as you may run out of elevator. There is fine line between just right and too much. Do not use speed brakes for landing on maiden. When you are happy and more experienced the speed brakes will slow model down faster. Let the model roll out and apply brakes.

Taxi back and do necessary adjustments to customize F14 before next flight.

We at Skymaster wish you many happy flights with your F14 Tomcat! Add some landing lights and load those weapons. Skymaster's tomcat is a show stopper!

Blue skies!

Anton Lin and Skymaster Team!



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SWING WING NOTES

Maybe this will be your first turbine model with swept wings. We have done many tests to make sure the model is safe in both forward and swept and asymmetrical flight. If you find that 1 wing is jammed during flight—do not panic. We have landed it in this position. **But we recommend to move the wings to symmetrical positions and land as soon as possible!**

No programming is needed for swept wings. Only install to AUX channel and select switch on radio.

- Make use of toggle switch (5 Amps) to isolate battery.
- You need to install a 3s 3000mA Li-Po for swing wing.
- NEVER select flaps when wings are swept. You need to set flaps to neutral before sweeping wings. If not—the actuator will damage with loss of control!
- No need to have elevator mix to swing mode. There is no real change in the attitude of F14 in swept mode.
- If you need to land with wings swept we recommend a faster approach.
- If the 2 wings no track symmetrical, adjust the actuator horn by turning it in or out as required.



Photo 75



Photo 76



Photo 77



Photo 78

