IMPORTANT INFORMATION ABOUT VMAR PILATUS PC6B

#VMA-PX1ES ELECTRIC ARF



This model is produced in a number of different Graphic Schemes. The second character ("X") of the part number will vary according to the model. This information sheet is pertinent for all graphics schemes of the PILATUS PC6B ELECTRIC ARF

PLEASE READ THIS BEFORE ASSEMBLY!



Model airplanes, model engines, model engine fuel, propellers and related accessories, tools and equipment can be hazardous if improperly used. Be cautious and follow all safety recommendations when using your VMAR model airplane. Keep hands, tools, clothing and all foreign objects well clear of engines when they are operating. Take particular care to safeguard and protect your eyes and fingers and the eyes and fingers of other persons who may be nearby. Use only a good quality propeller that has no cracks or flaws. Stay clear of the propeller and stay clear of the plane of rotation defined by the propeller.

The Manufacturer, Distributor, Retailer and/or other suppliers of this product expressly disclaim any warranties or representations, either expressed or implied, including but not limited to implied warranties of fitness for the purposes of achieving and sustaining remotely controlled flight.

In no event will the Manufacturer, Distributor, Retailer and/or other suppliers of this product have any obligation arising from contract or tort, or for loss of revenue or profit, or for indirect, special, incidental, consequential or other damages arising from the use of this product.

In purchasing and/or using this product, the user accepts all responsibility for its use and accepts all liability associated with such use.

Proceeding with assembly and use of this product indicates Agreement With and Acceptance of the Liability Disclaimer.

- CAUTION -

A Remote Control Model Aircraft is not a toy. It is a flying model that functions much like a full size airplane. If you do not assemble and operate this product properly you can cause injury to yourself and others and damage property. DO NOT FLY this model if you are not qualified.

You are ultimately responsible for the mechanical, aeronautical and electrical integrity of this model and it's structure, control surfaces, hinges, linkages, covering, engine, radio, wiring, battery and all other components. Check all components before and after each flight. Don't fly until it's right!

CARE & MAINTENANCE OF POLYCOTE ™ECS.

POLYCOTE ECS is a proprietary Enhanced Covering System engineered in Canada & available only from VMAR. With POLYCOTE ECS the graphics are inside the covering... not stuck on top. No Decals! No Layers! No Strips! No Stripes! POLYCOTE ECS utilizes ULTRA TOUGH polyester and our SURE SEAL system to ensure that the seams stay down! Best of all POLYCOTE is totally fuel proof! Quite simply... POLYCOTE ECS leads the pack in ARF covering systems!

By putting the graphics inside the POLYESTER covering... we've reduced the need for maintenance to a minimum. No seams to pick up, very few edges, extraordinary fuel proofing etc. With POLYCOTE ECS you will spend more time flying and less time reworking the covering! Polyester offers the best in covering performance and as with any POLYESTER covering here are a few tips to make it even easier to keep POLYCOTE ECS looking it's best!

REMOVING & USING TAPE: Tape may been used to hold control surfaces or other parts in place during shipping. When removing tape from POLYCOTE ECS, peal the tape back on itself so that the pulling is parallel to the surface of the covering. If the tape is near or across a seam or an edge, peal towards the edge or seam. Do NOT pull the tape up at right angles to the covering or away from a seam or edge. If you use tape during the assembly process use a low tack masking tape and remove it using the procedure noted above.

CLEANING INITIALLY: POLYCOTE ECS has very few seams and we use our SURE SEAL system to really lock the seams down. Upon initial inspection if you see a thin streaky film on any of the POLYCOTE ECS when looked at under bright light this is a residue from the SURE SEAL process. It is easily removed using Minerial Spirits (Paint Thinner, Varsol). If you've ever painted with oil base paints you probably have Mineral Spirits on hand already, if not, it is readily available at a paint or hardware store. **It is recommended that you work with Mineral Spirits outdoors and follow the directions on the container.** Use a paper towel and wipe a slightly wet film of Mineral Spirits over 1/4 of a wing or half a fuselage at a time. Rub gently while still wet. Change towels frequently. Use a clean towel to buff dry. If you want to accentuate the deep "clear coat" gloss of POLYCOTE ECS even more, use a bit of Armorall and buff shiny with a clean paper towel. Discard all soiled paper towels into a metal garbage can stored outdoors.

CLEANING AFTER FLYING: To clean POLYCOTE ECS after flying we recommend Fantastic household cleaner and disposable paper towels. You can use just about any cleaner and we are not aware of any cleaner that will damage POLYCOTE but it is a good idea to always test a small out of the way spot first. Wipe along seams, not across. To really show off your POLYCOTE ECS covering, after cleaning with Fantastic... use a bit of Armorall and buff dry & shiny.

CARE: Avoid puncturing. Avoid leaving your model in a closed car exposed to direct heating from the sun for lengthy periods. Temperatures under such conditions can exceed 50C (122F) and sagging may occur.

TIGHTENING: To tighten POLYCOTE ECS we recommend using a medium-high temperature **heat iron on the seams, edges, around perimeters and over solid surfaces**. Use a heat iron "sock" on the iron and push down firmly on the covering over solid areas to bond the covering to the underlying substrate. Work with the iron set at 250-300F. You may also work with a heat gun over solid surfaces provided that all edges and seams are set with a heat iron first. If using a heat gun over solid surfaces, make sure the edges are firmly set with a heat iron first then use the heat gun to heat about 1 square foot of area at a time, then rub the warm covering down firmly with a soft cotton cloth to bond the covering to the underlying substrate. **DO NOT USE A HEAT GUN NEAR EDGES & SEAMS.** Higher temperatures may assist with complex curved surfaces. Use a medium-high temperature **heat gun on POLYCOTE ECS applied over open bays.** Always practise on the bottom of a less noticable section first. Be patient and work systematically... you will likely only have to tighten POLYCOTE once or twice to accommodate any shrinkage of the airframe in dry hot conditions.

RESEALING SEAMS: POLYCOTE ECS seams are sealed with our SURE SEAL system and will not normally lift. If you find a loose edge, clean any oil residue from the area and the edge and reseal with thin CA.

PATCHING: If you puncture POLYCOTE ECS, clean any oil residue from the area of the puncture. We clean using Fantastic and then a paper towel moistened with Pacer De-Bonder or alcohol or water to remove any remaining residue from the surface. The patch should be 1/2" bigger than the hole on all sides. We recommend using POLYCOTE patch sheets if provided with your model or polyester covering such as POLYCOTE, ULTRACOTE or ORACOVER and the use of a heat iron and soft cloth. Monokote, SolarFilm or V-COTE covering material will also work. Cut the patch with rounded corners. Seal the patch in place with a heat iron set at 250F first and then tighten the patch and the original covering around the patch as outlined in the tightening section above. To repair larger more extensive damage areas, you may wish to obtain the appropriate POLYCOTE ECS covering set for this model.

CUTTING: POLYCOTE ECS is made from ULTRA TOUGH POLYESTER. Where possible, use scissors to cut POLYCOTE. Scissors work well. Otherwise use a new sharp #11 Blade. **The blade must be SHARP**.

Check for updates and more information about POLYCOTE ECS at www.richmondrc.com/polycote.htm

HINTS & TIPS PILATUS PC6B ELECTRIC ARF

- 1. During construction use Low Tack Masking Tape only. The green painters masking tape works well. When removing tape from your model, peal the tape back carefully upon itself. Do not pull the tape at right angles to the surface to which the tape has been applied or you run the risk of pulling the coveirng away from the substrate to which it has been applied.
- **2**. On Page 3, Step 1.2 refers to various items that are not included but are required to complete this model.

Extensive testing at elevations up to 2000 feet above sea level has resulted in the following specific recommendations.

- **2.1** Use an RC Radio intended for Electric Flight. These systems usually come with a ligh weight receiver, smaller servos etc. We recommend the Airtronics #AIR-VG407FM system that comes with a lightweight 4ch FM receiver and 3 super micro lite servos (#AIR-94091Z). For this model you will need only 2 of the 3 Airtronics servos supplied in the system. The 94091Z servo provides 18oz of Torque at 4.8V and 23 oz of Torque 6.0 and weights only 9 grams. Best of all the receiver and servos have the new Z connector to ensure compatibility with a wide range of new Airtronics, Fubaba and JR components.
- **2.2** Use a good Electronic Speed Control (ESC) such as the Airtronics Super Micro ESC #AIR-96334Z which is perfect to control the motor speed of this model.
- **2.3** Note that you must use the 7.2 volt version of Speed 400 motor not the 6.0 volt version. We recommend VMAR's 400 motor (#VME-0400M072) along with an appropriate prop adapter (#VME-0400PA) and a good quality electric propeller such as the APC-6x4 Electric.
- **2.4** For good performance we recommend a 9.6 volt battery pack NOT the 8.4 volt battery pack referred to in the instructions. You can begin with a 9.6V (8 cell) 500AR nicad pack and upgrade later to a 9.6V/1100mAh NiMH pack for much longer flight times. The 500AR nicad pack will give you flight times of approximately 3 minutes at full throttle. The 1100mAh NiMH pack will give you approximately 7 minutes of flight time at full throttle.

For more information that may be relevant to this model please visit us at www.richmondrc.com/support.htm



- 3. Before beginning Step 2 on Page 3, remove any lockdown material and/or foam pads from the wing. Be careful when removing tape. Pull tape strips back on themselves... do not pull tape away from the wing. Be very careful when removing tape that crosses a seam or edge in the covering. Remove any Tape Residue with alcohol or other not abrasive solvent. Test a small area first.
- **4.** Please review the "Care and Maintenance of POLYCOTE ECS" page within this document. Pay particular attention to the section entitled "Cleaning Initially". We recommend that you clean the surfaces initially in order to maximize the appearance of your new model. Remove any plastic plates before cleaning and test all cleaners on painted surfaces.
- **5.** On Page 3 in several of the wing pictures you can see the wing bolt holes cleared of covering. Before clearing the holes. wick a bit of ZAP (thin) CA into the covering area from inside the hole, externally press the covering around the hole, let the CA dry, then trim the covering clear of the mounting holes with a sharp #11 blade.
- **6.** When installing the motor as described in Phase 4 on Page 5, we strongly suggest opening up some cooling air inlets on the front nose ring plate. The factory has tapped two holes for the motor retaining screws. Use a cutting knife or a dremel tool to open up some air inlet slots in the nose ring to match the venting slots on the front of your particular motor. Cool motors produce more power!
- **7.** Plan to use an Electronic Speed Control ESC such as the recommended Aitronics #AIR-96334Z. Mount the ESC where it is in the airflow away from the motor. Mount the components facing into the air circulation.
- 8. To properly cool your motor, electronic speed control and your battery we recommend cutting some vents into both bottom hatches. Examine the inside (uncovered side) of both hatches and plan any cutouts to avoid structural members. Cut the sheeting and covering only. The Hatches are for cosmetic purposes and some modellers will fly without them. We do recommend using the hatches but strongly suggest cutting some vents into both bottom hatches to provide an exit for hot air coming from the motor and for cooling air to pass over the ESC & battery.



PLEASE READ EVERYTHING BEFORE ASSEMBLY!

HINTS & TIPS cont'd

For more information that may be relevant to this model please visit us at www.richmondrc.com/support.htm

PILATUS PC6B ELECTRIC ARF

- 9. On page 6, Step 5.1 outlines the method to be used to remove the covering from the horizontal stab. It is advisable to cut about 1/4" inboard from the lines drawn so that the cutout area is slightly smaller than shown and will be totally within the slot on the fuselage. Make sure that you do not cut into the wood or score the wood. Use a sharp #11 blade and if you cut into or score the wood. fill the cut or score line with thin CA before continuing. Cutting or scoring the wood in this area can result in failure of the horizontal stab during flight if you do not repair the cut or score line before installing the stab into the slot on the fuselage.
- 10. On page 6, Step 6.3 outlines the method to be used to remove the covering from the vertical stab. Make sure that you do not cut into the wood or score the wood. Use a sharp #11 blade and if you cut into or score the wood, fill the cut or score line with thin CA before continuing. Cutting or scoring the wood in this area can result in failure of the vertical stab during flight if you do not repair the cut or score line before installing the stab into the slot on the fuselage.
- 11. On page 7 Step 8.2 and on Page 8 the factory has provided guidelines for control surface throws. For the elevator we suggest a maximum of 3/16" up and down until you are very familiar with this model. Having more elevator throw increases the chance of snap rolls during low speed maneuvers.
- 12. On Page 7, Step 8.3 refers to installing a receiver battery. This is not necessary when using an Electronic Speed Control (ESC) with Battery Eliminator Circuitry (BEC) like the recommended Airtronics ESC #AIR-96334Z with BEC. We strongly suggest the use of an ESC with BEC to provide better control over your motor speed and to reduce the flying weight of your model.
- 13. On Page 7, Step 9.1 refers to balancing the aircraft. In order to get the CG of your model to match the factory CG you will likely have to move your battery pack further aft. There is nothing wrong with this. Move the battery as necessary to get the CG of your model to match the spec provided in the instructions.



14. FLYING TIPS.

This model does not have a rudder hence for ground takeoffs you will need a good headwind. For all but experts. we recommend a flying hand launched takeoff and this should ideally be into a wind of about 5 knots. With your radio switched on and motor at full throttle, taking care not to touch the propeller, walk briskly or run into the wind for about four steps and then launch the model into level flight. Do not throw the model UP. Launch your model level or even very slightly down but not up.



SILVER		WHITE
SCHEMA	AFTER MARKET PARTS	SCHEMA
#VMA-P21ESF	FUSELAGE	#VMA-P11ESF
#VMA-P21EST	TAIL SET	#VMA-P11EST
#VMA-P21ESV	COVERING SET	#VMA-P11ESV
#VMA-P21ESW	WING	#VMA-P11ESW

COMMON PARTS #VMA-P21ESIB #VMA-P21ESIBP

FOR SILVER & WHITE INSTRUCTION BOOK IMPORTANT INFORMATION SHEET HARDWARE BAG #VMA-P21ESHB

OTHER ITEMS #AIR-VG407FM #AIR-96334Z #VME-0400M072 6 X 4 PROP #VME-0400PA

AVAILABLE BUT NOT SUPPLIED AIRTRONICS RADIO SYSTEM AIRTRONICS ELEC SPEED CNTRL SPEED 400 MOTOR (7.2V) ELECTRIC PROPELLOR PROP ADAPTER



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