HINTS & TIPS cont'd

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

8.3 Mark the location of your engine lugs and the engine lug mounting holes. Using a pen refill only without the pen holder makes this easier. See Figure C.

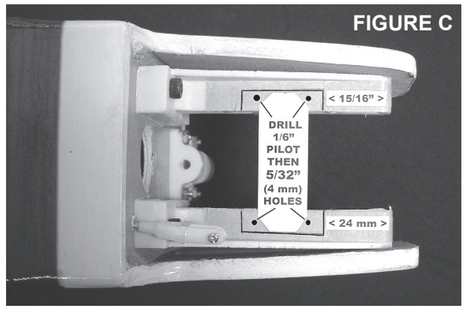


FIGURE C

8.4 Center punch the mounting hole locations & then drill 1/16" pilot holes vertically through the engine mounts. Check that the pilot holes are in the correct location and then expand the holes with a 5/32" drill. See Figure D.

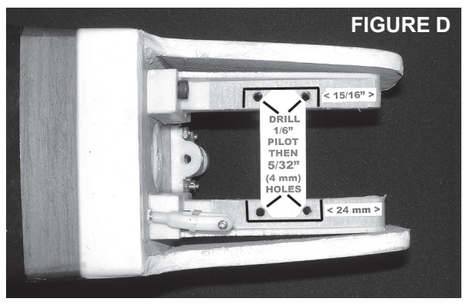


FIGURE D

8.5 Remove all the nuts and all the washers from the mounting bolts. Insert the left bolts as shown in Figure E and the right bolts as shown in Figure F.

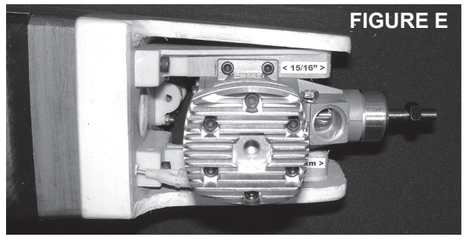


FIGURE E

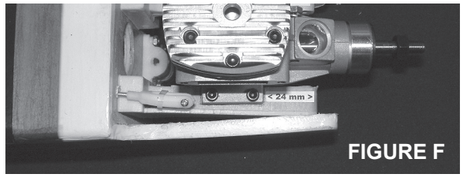


FIGURE F

8.6 Carefully turn the fuselage over while holding the bolts in place. Install the washers & nuts as shown in Figure G. Tighten securely but do not overtighten. Check periodically. Use Thread Locker if available.

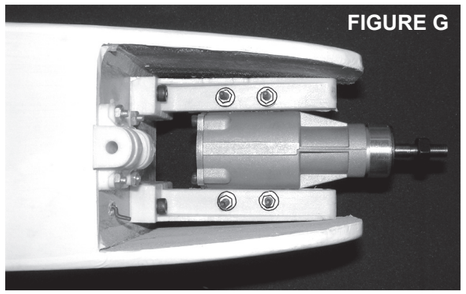


FIGURE G

8.7 Install your Carburetor and Muffler Securely per FIgure H. Follow up with installation of spinner and appropriate propeller for your engine.

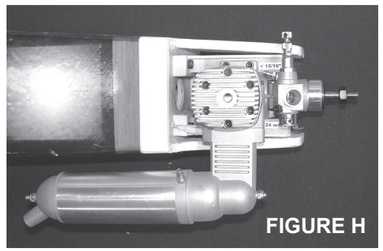


FIGURE H

SPARE PARTS

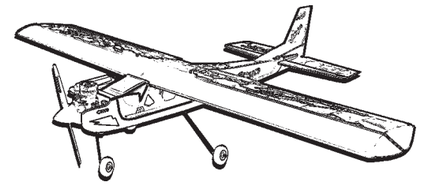
BLUE GRAPHICS	AFTER MARKET PARTS	RED GRAPHICS
#VMA-S240BF	FUSELAGE	#VMA-S240RF
#VMA-S240BTH	STABILIZER HORIZ	#VMA-S240RTH
#VMA-S240BTV	STABILIZER VERT	#VMA-S240RTV
#VMA-S240BVF	COVERING FUSE	#VMA-S240RVF
#VMA-S240BVW	COVERING WING	#VMA-S240RVW
#VMA-S240BVPS	COVERING PATCHS	#VMA-S240RVPS
#VMA-S240BVT	COVERING TAIL	#VMA-S240RVT
#VMA-S240BW	WING SET	#VMA-S240RW

COMMON PARTS	FOR BLUE AND RED VERSION
#VMA-S240XIB	INSTRUCTION BOOK
#VMA-S240XIBP	IMPORTANT INFORMATION SHEET
#VMA-S240XMB	MASTER PARTS BAG
#VMA-S240XMGB	MAIN GEAR PARTS BAG
#VMA-S240XNGB	NOSE GEAR PARTS BAG
#VMA-S240XRMF	READ ME FIRST SHEET
#VMA-S240XSPB	SPARE PARTS BAG
#VMA-S240XSPR	WING SPAR JOINER
#VMA-S240XWPB	WING PARTS BAG
#VMA-CHSET	CONTROL HORN (2 SETS)
#VMA-WH2716	WHEELS 2-7/16" (NEED 3)
#VMA-WB1420	WING BOLTS (4)
#VMA-MOUNTUNP	ENGINE MOUNTS (PAIR)
#VMA-SPIN225B	SPINNER - BLACK 2-1/4"
#VMA-TANK3503	FUEL TANK 350ml (12 OZ) 3 TUBES
#VMA-SXTRAY	SERVO TRAY - UNIVERSAL

PLEASE READ EVERYTHING BEFORE ASSEMBLY!

IMPORTANT INFORMATION ABOUT VMAR STINGER

#VMA-S240X



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 wtih 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 accomodate 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 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

STINGER 40-52 ARF TRAINER

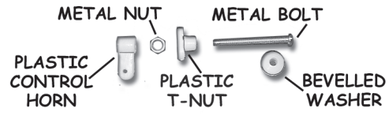
For more information that may be relevant to this model please visit us at www.richmondrc.com/support.htm

1. During construction, whenever you use epoxy, it MUST BE 30 Minute Epoxy. Do not use faster cure time Epoxy... Use good quality 30 Minute Epoxy only.

2. When first opening the box and reviewing the contents here is a "what is where" list that you may find helpful...
- the
- the horizontal stab is packed between the wing halves
- the vertical stabilizer is near and beneath the fuselage
- the hardware bag is in a separate area near
- the
- the servo tray and control rods are in the fuselage

3. OUR CONTROL HORNS are unique. They do not look like most of the control horns you have seen before and you may think they are missing. They are in the control horn parts bag &/or wing parts bag inside the master bag of hardware and consist of a metal bolt, metal nut, beveled white plastic washer, a white plastic T-nut and the white plastic control horn itself that connects to a clevis or rod.

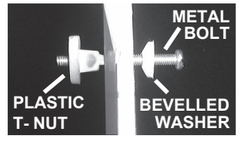
Control Horn Set Before Installation. Note 5 parts make up the set.



(Note: In Light Duty applications the Metal Nut may not be included)

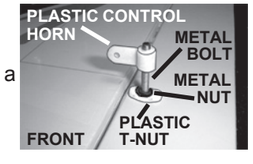
Control Horn Set Partially Installed

Note that the bevelled washer has the bevel side facing the control surface and the flat side against the head of the metal bolt.



Control Horn Set Fully Installed.

Note that the metal nut has been tightened down snugly against the top of the T-Nut as a safety lock. Then the plastic control horn is threaded on to the metal bolt as shown.



4. During construction use Low Tack Masking Tape only. The green painters masking tape works well.

5. Before beginning Stage 1 Wing Assembly, 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 small area first.

6. On Page 3 Stage 3 in pictures 3A, 3B & 3C you can see the wing bolt holes cleared of covering. Before clearing the holes. wick a bit of thin VCA into the covering area from inside the hole, externally press the covering around the hole, let the CA dry, then cut with a sharp #11 blade.

7. On Page 4 Stage 4 Fitting Aileron Servos, some servos have a rubber boot strain relief around the wire coming from the servo. Notch the bottom of the servo rails shown in picture 4D to clear the rubber boot or wire if required.

8. Page 10 Installing the Engine - Stage 17. The engine mount has been pre-installed in the correct location. Depending on your model and the date of manufacturer, your engine mount may look slightly different than that depicted in 17B. If your engine mount looks the same as shown in 17B and includes the metal clamp plates then please follow the Stage 17 instructions to install your engine.

If your engine mount does NOT have the metal clamp plates illustrated in 17B then please use the following alternative instructions to install your engine mount.

8.1 Locate the set of four engine mounting bolts, washers and nuts in the hardware bag supplied with your model. See Figure A below.

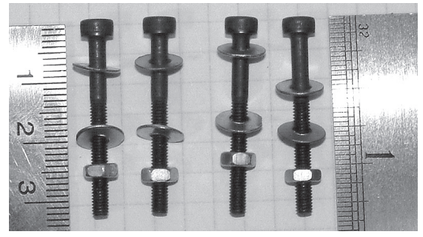
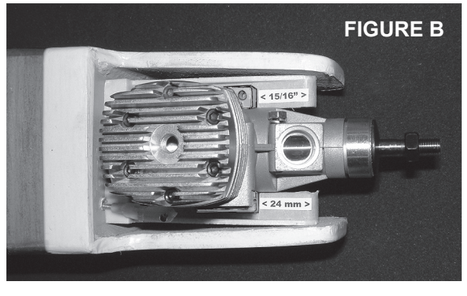


FIGURE A Engine Mounting Bolts, Washers & Nuts

8.2 Carefully remove your carburetor, muffler, spinner, prop etc from your engine. Neatly apply masking tape to the top surface of the engine mounts so that you can mark the mount with a pen or pencil Place your engine on the engine mount so that the front of the engine lugs are approximately 15/16 in. (24 mm) from the front end of the engine mounts. See Figure B.



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PLEASE READ EVERYTHING BEFORE ASSEMBLY!