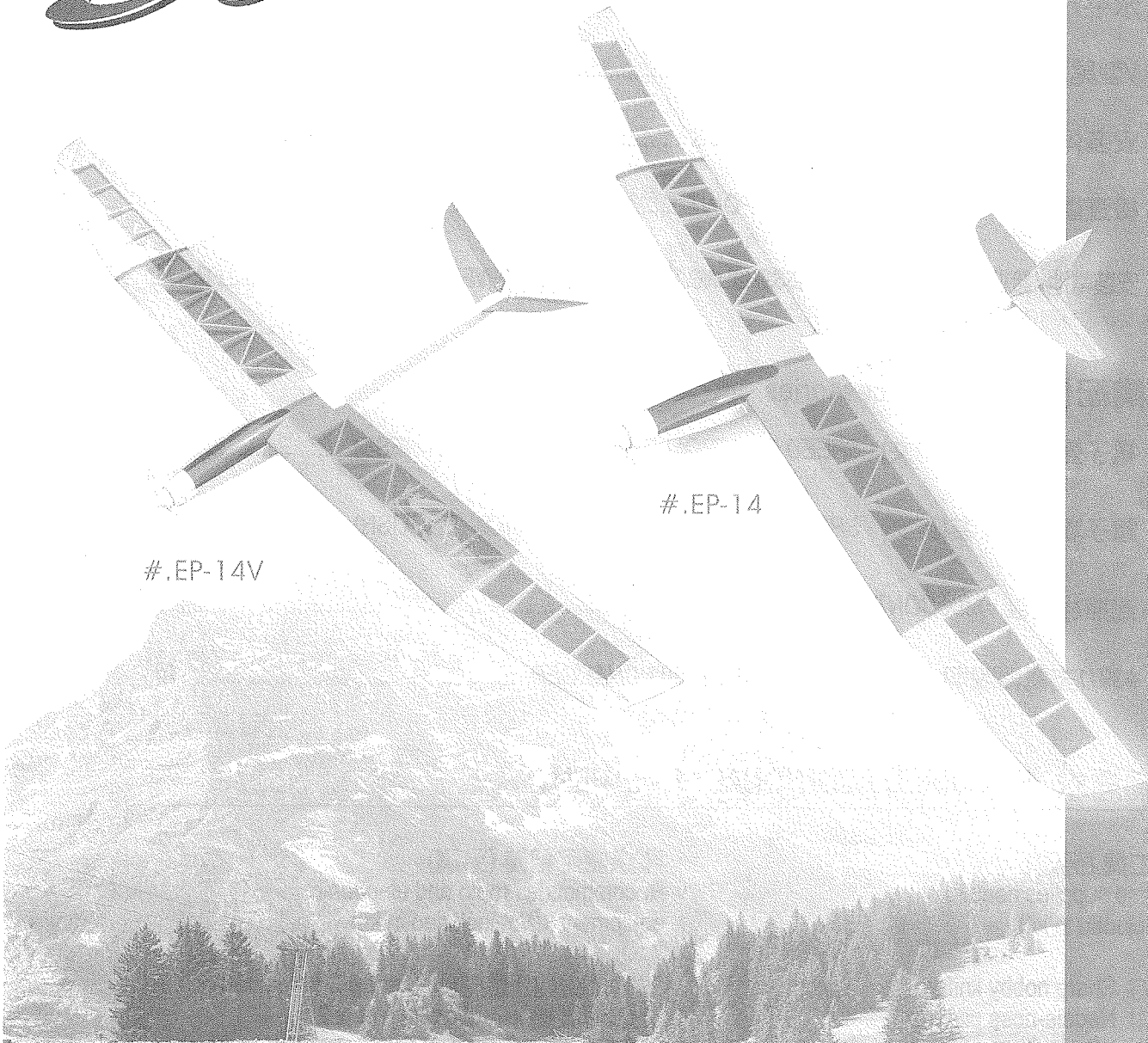




SUPER FLYING MODEL

Soarwing™



#.EP-14V

#.EP-14

組裝說明書 INSTRUCTION MANUAL

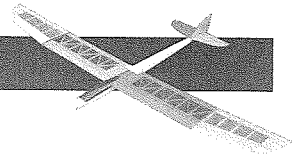
規格 Specifications

翼展.....	Wing Span.....	59 inches / 1500 mm
翼面積.....	Wing Area	330 sq.in / 21.3 sq.dm
機身長.....	Overall Length.....	34.3 inches / 870 mm
全備重量.....	Ready to Fly Weight.....	1.33 - 1.5 lbs / 600 - 680 g
遙控器(不含)...	Radio(Not included).....	3 Channel minimum

INSTRUCTION MANUAL



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設備需求 REQUIRED ADDITIONAL EQUIPMENT

準備工具 (另購)

Tools and supplies needed
(Not included in kit)

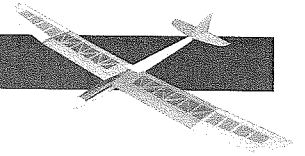
美工刀 Sharp hobby knife
尖嘴鉗 Needle-nose pliers
斜口鉗 Wire cutters
簽字筆 Black felt-tipped pen or pencil
螺絲起子(+,-) Screwdriver(+,-)
1.5mm六角板手 1.5mm Allen wrench
尺 Ruler
手鑽 Drill
2mm 鑽子 Drill Bit: 2mm
環氧樹脂(AB膠) 12-minute epoxy
瞬間膠 Instant glue
酒精 Rubbing alcohol

建議使用配備 (另購)

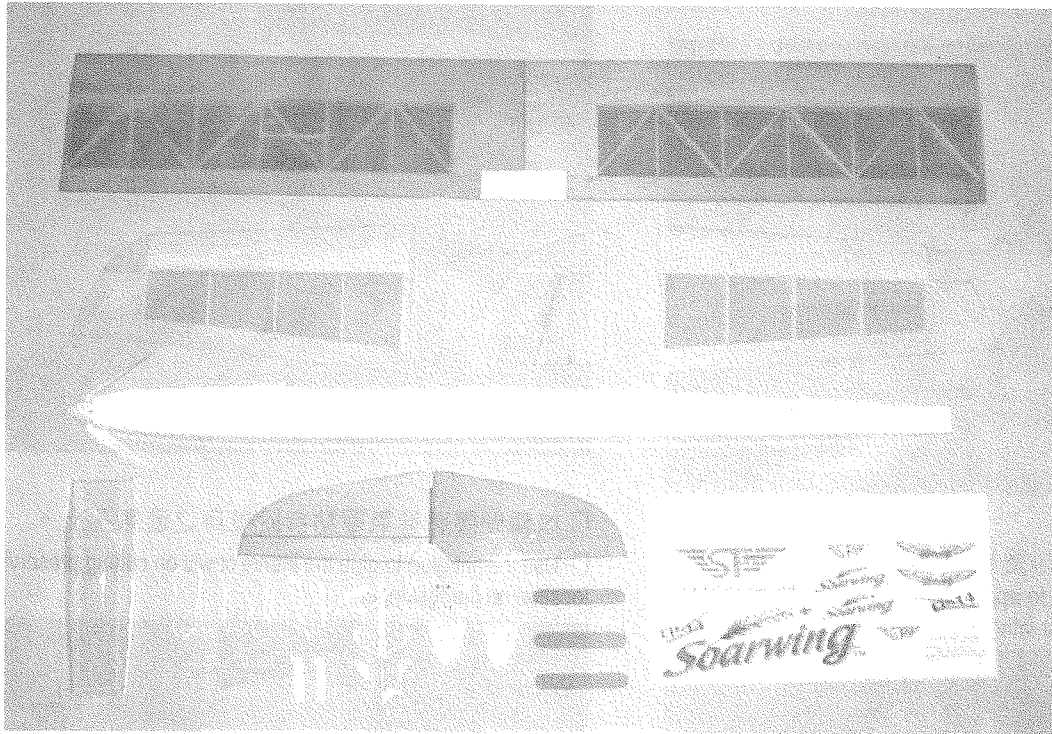
Recommended radio and electronic
equipment (Not included in kit)

三動(或以上)遙控器 3 or up Channel radio
迷你伺服機 x 2 Micro servos x 2
迷你或一般接收機 Micro or general receiver
8A 電子變速器 8-Amp electric speed control
混控板(V尾專用) V-tail Mixer (For V- tail type)
600 mAh~1100mAh Ni-cd 9.6V 電池組 ---
An 8-cell 600mAh ~ 1100mAh Ni-cd battery pack

CONTENTS OF KIT



- 標準型產品內容 (馬達與螺旋槳已裝配於機身)。
- The contents of the **standard version** kit. This kit has assembled motor and propeller.



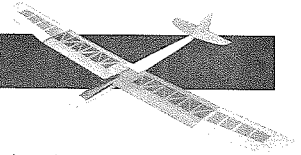
- V形尾翼機型之產品內容 (馬達與螺旋槳已裝配於機身)
- The content of the **V-tail version** kit. This kit has assembled motor and propeller.



Note:

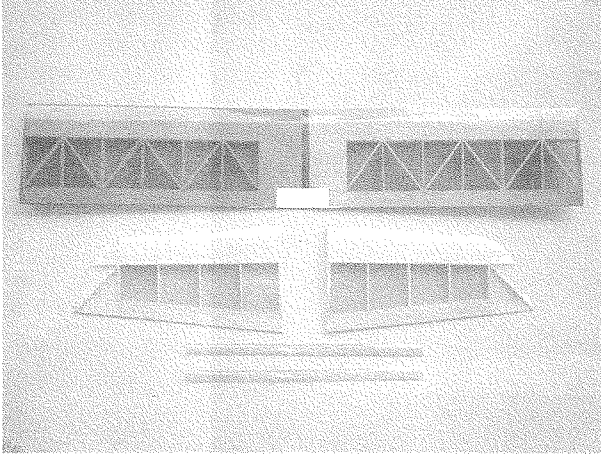
- ↳ V形尾翼機型若採用混控器, 尾翼舵角控制方式請依混控器安裝說明.
- ↳ If select mixer to fly the V-tail version SOARWING please refer to the instruction of mixer for adjusting the control horn of the tail wing.

主翼與機身組合 ASSEMBLING THE MAIN WING AND FUSELAGE



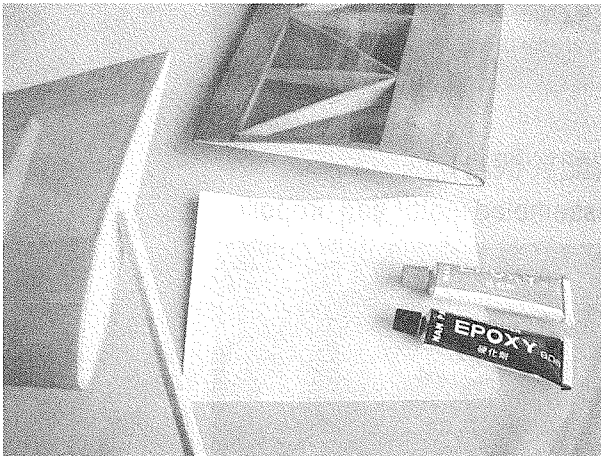
□ 先拿出內翼、外翼與自黏貼條(又稱為主翼接縫條)。

□ Place the center wing, outer wings and adhesive wing joining tapes on the desk.



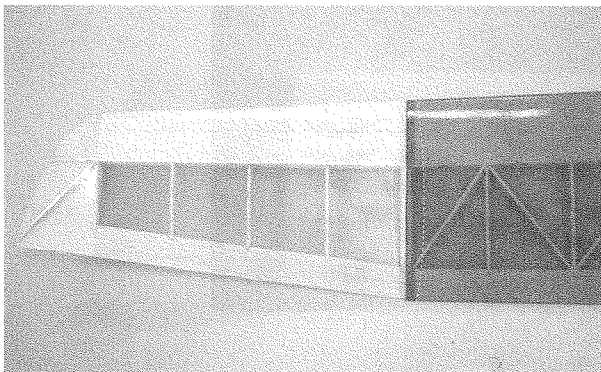
□ 調適量AB 膠均勻塗抹於內翼與外翼之接著面。

□ Using a mixing stick to apply a generous amount of epoxy to the joint areas of center wing and outer wings.



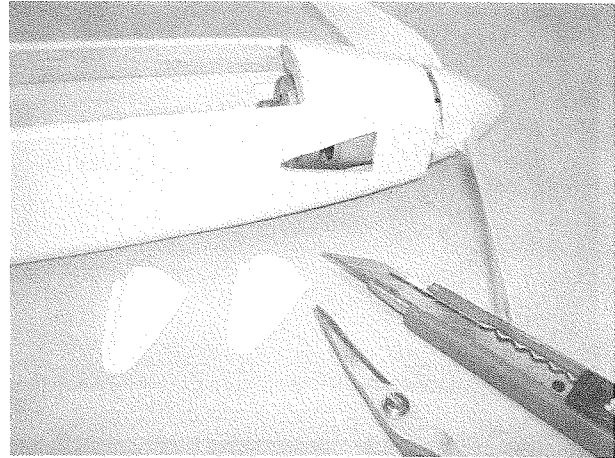
□ 在AB 膠硬化前將內翼與外翼調整至正確位置，黏合固定後以主翼接縫條 黏貼於主翼與外翼的接縫處，由上往下拉緊貼上。

□ Join the center wing and outer wings. Apply wing-joining tapes on the wing joints to hold the two panels tightly together.



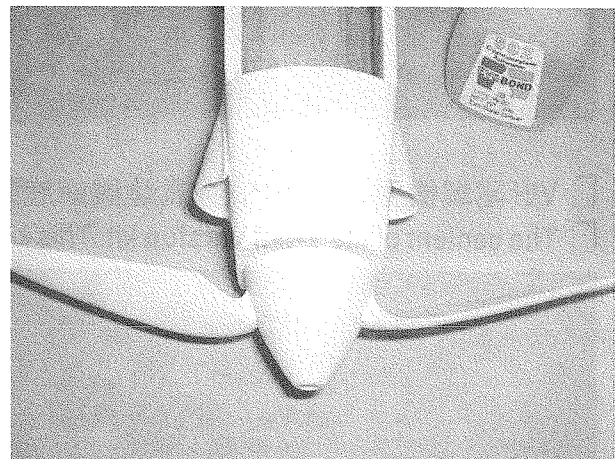
□ 修剪進氣罩並割開機身之進氣孔。

□ Trim the intake cowls. Use hobby knife to cut off the preserving location on the fuselage for gluing intake cowls.



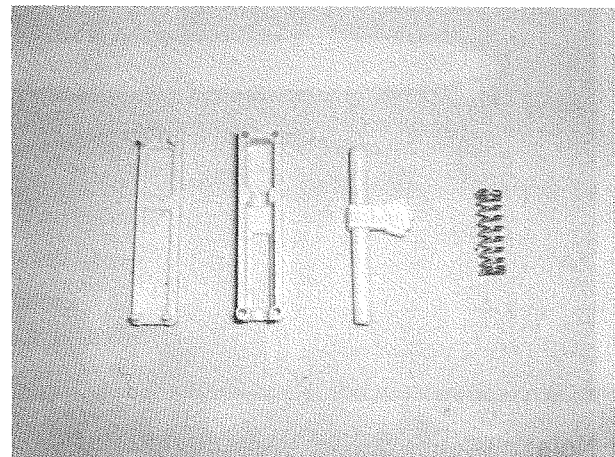
□ 以瞬間膠將進氣罩黏合於機身之進氣孔上。

□ Use instant glue to glue the intake cowls on cutting preserving location on the fuselage.

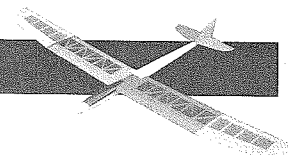


□ 從射出成型零件組中將扣具塑膠零件剪下。

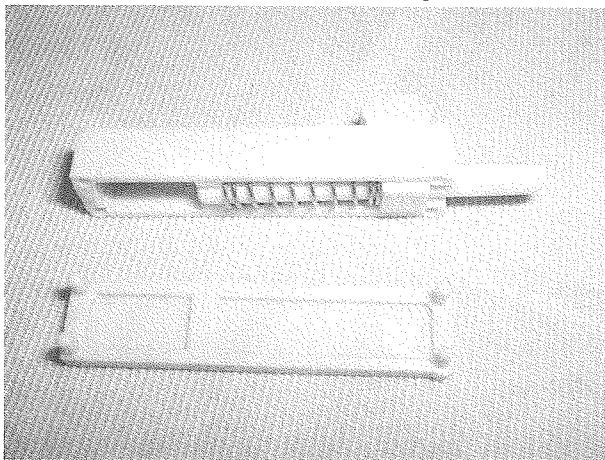
□ Cut the hatch latch parts from the injection plastic tree.



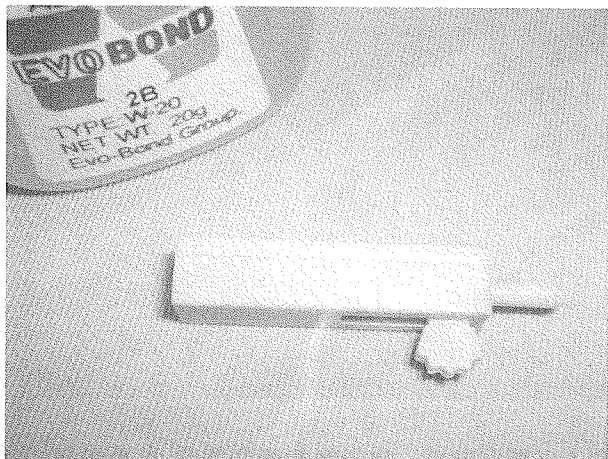
主翼與機身組合 ASSEMBLING THE MAIN WING AND FUSELAGE



- 依圖示組合扣具與彈簧。
- Assembling the hatch latch as the drawing.



- 以瞬間膠微量塗抹於接合處將上下座黏合即可，注意保持扣具的順暢。
- Apply a thin coat of instant glue to the joint area of the bottom part of hatch latch and glue them together. Please note to keep the latch moving freely.



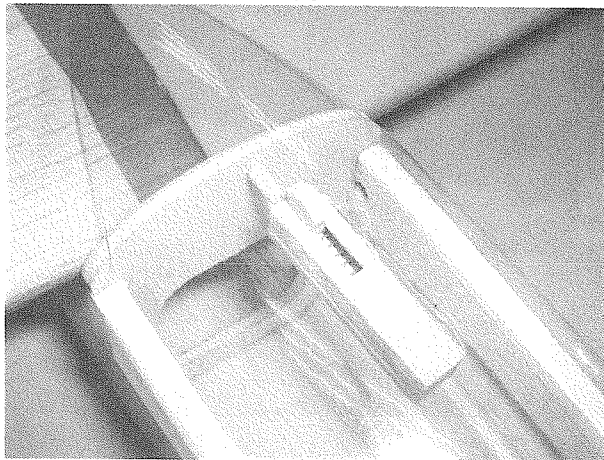
- 沿剪裁線修剪機艙罩及其上方之預留缺口。
- Trim the canopy and cut the preserving location on the canopy for installing the hatch latch.



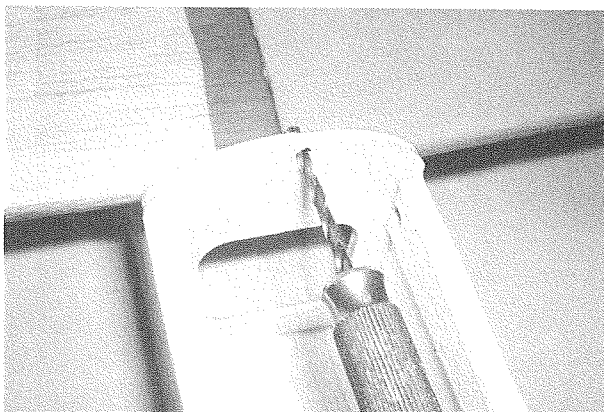
- 將已完成之扣具以瞬間膠黏合於切開之缺口，扣具插梢朝向隔板。
- Use instant glue to glue the hatch on the cutting hole of the canopy. Please note the direction of the hatch. The pin must face the plywood of "F3".



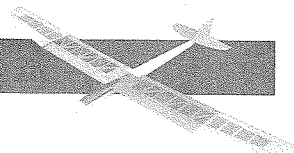
- 將機艙罩置於機身，扣具插梢對應於隔板的點，於此點上用奇異筆做上記號。
- Try to fit the canopy on the fuselage. To mark the location on the "F3" where latch touch the plywood.



- 再以電鑽於此點上鑽一 $\phi 2.3\text{mm}$ 孔。
- Drill a 2.3mm hole on the mark location.

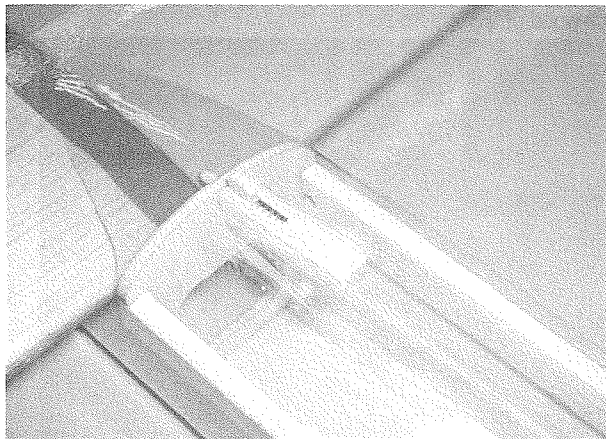


主翼與機身組合 ASSEMBLING THE MAIN WING AND FUSELAGE



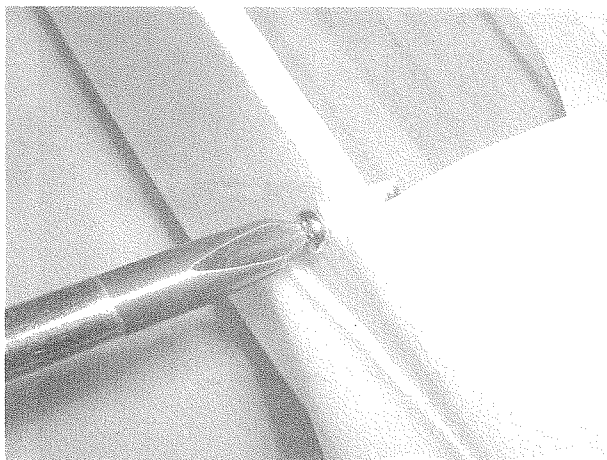
□ 將扣具前端之軸心穿過格板上所開之孔，以固定機頭罩於機身上。

□ Insert the latch through the hole for fixing the canopy on the fuselage.



□ 機身鎖上 $\phi 2\text{mm}$ 之木工螺絲。

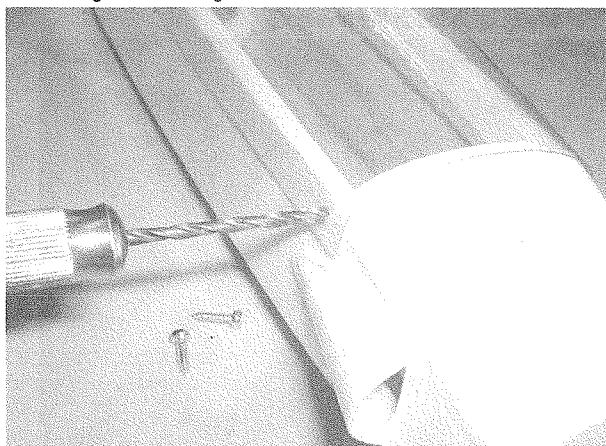
□ Screw in 2mm tapping screw.



□ 機艙罩前端鑽一 $\phi 2\text{mm}$ 孔，注意勿將鑽頭穿透機身。

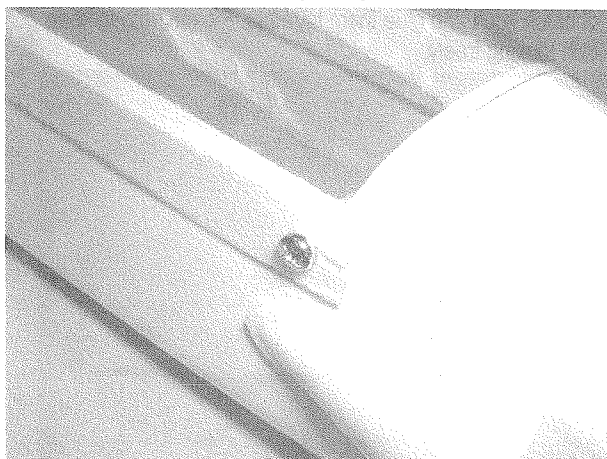
□ Check the location of canopy and make some adjustment.

When the canopy fit the fuselage perfectly, drill one 2mm hole on the front part of canopy on both sides. Please take care not to drill through the fuselage.



□ 調整適當空隙便於拆裝機艙罩。

□ Try to fit the canopy and make adjustment, so the canopy can be assembled and remove away easily.



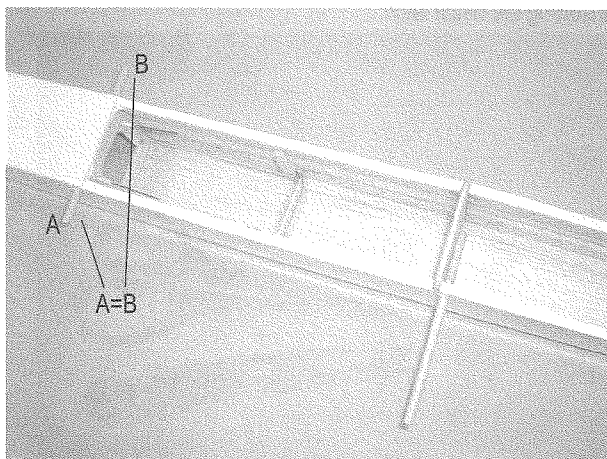
□ 如圖剪開機艙罩前端兩側缺口當卡榫。

□ Remove the canopy from the fuselage. Cut 2 U openings on both sides of canopy and the drilled holes as the bottom line.

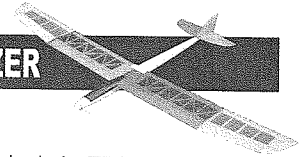


□ 穿入主翼固定桿，突出機身兩側等長，以瞬間膠黏合。

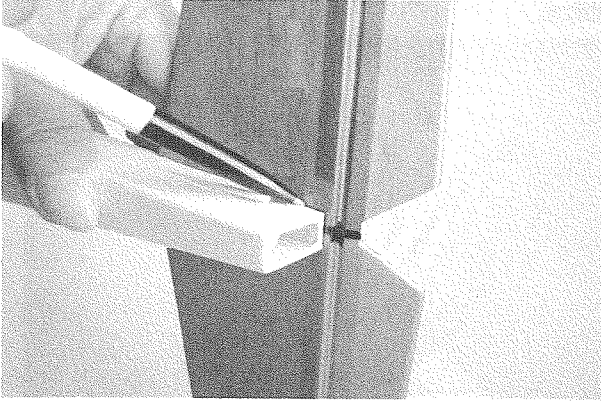
□ Insert the dowels through the fuselage. The length outside the fuselage must be the same. Fix both dowels by instant glue.



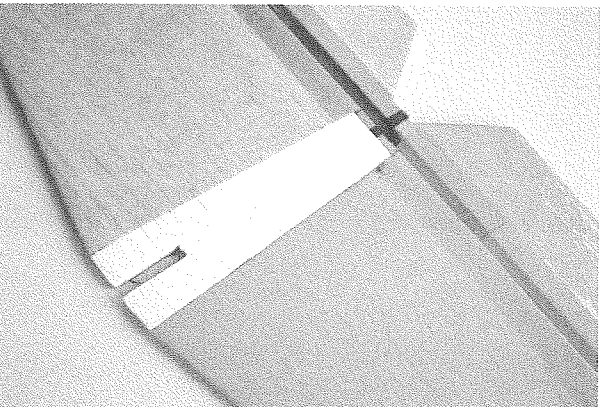
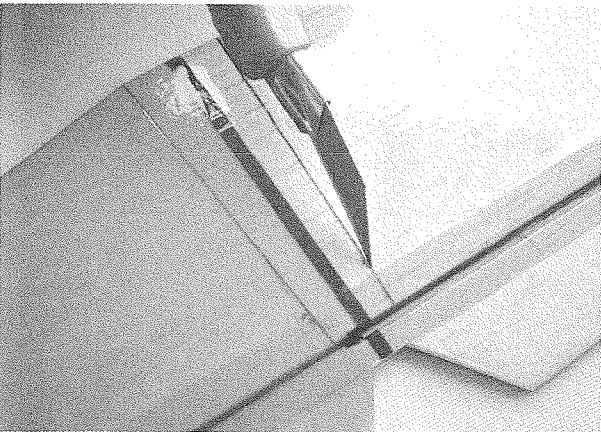
水平/垂直尾翼組合 ASSEMBLING THE HORIZONTAL AND VERTICAL STABILIZER



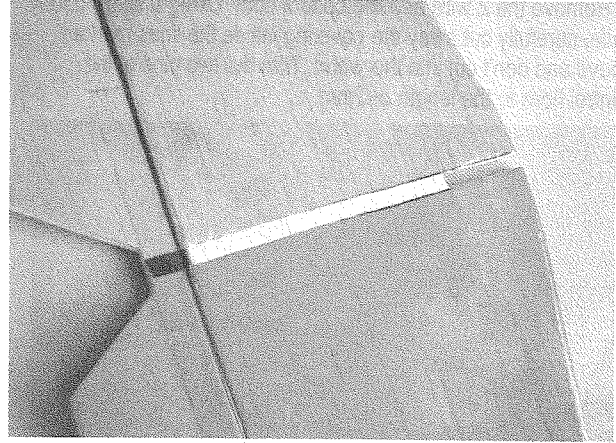
- 將水平翼置於機尾平面，對正機身中心線與後緣成90度角，描出水平翼下部之黏合位置。
- Trial fit the horizontal stabilizer in place on the fuselage. Check the alignment of the horizontal stabilizer. When you are satisfied with the alignment, use a pencil to carefully trace around the bottom of the stabilizer where it contacts the fuselage.



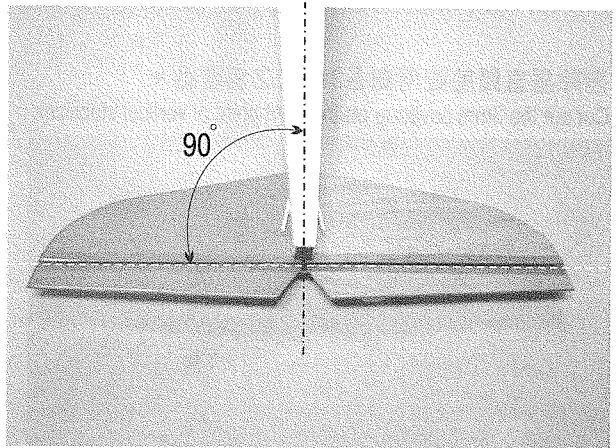
- 使用美工刀沿線輕割包覆紙，撕開包覆紙。（切勿傷及巴爾沙木面以免結構受損）
- Remove the horizontal stabilizer from the fuselage. Using a straight edge make sure the lines drawn are straight. Using a sharp hobby knife, carefully cut away the covering inside the lines marked above.
(Be careful not to cut into the wood, as doing so will weaken the structure.)



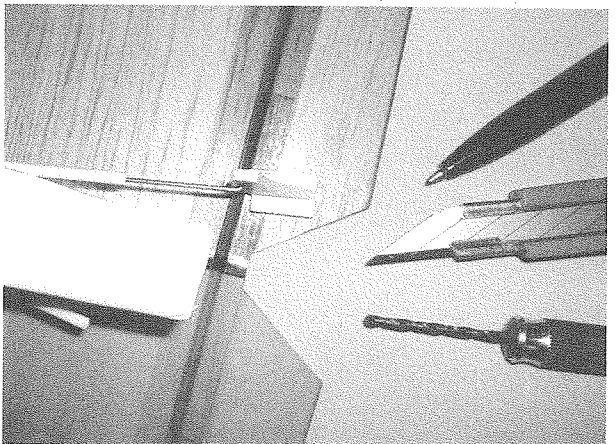
- 水平翼上部沿中心割除3mm寬之包覆紙。
- Tracing a 3mm centerline on the top of horizontal stabilizer. Using a sharp hobby knife, carefully cut away the covering inside the lines marked above and don't cut into the wood.



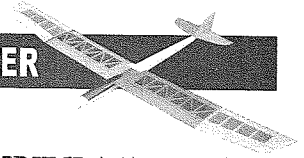
- 以AB膠將水平翼黏合於機身。
- Spread the epoxy on the horizontal stabilizer where it contacts the fuselage. Secure the horizontal stabilizer in place.



- 舵角器底部算起第二孔穿過傳動鋼線Z形端，描出升降舵待黏合方形位置，注意傳動鋼線須保持順暢。
- Place one control horn on the elevator and insert the Z wire through the second hole on the horn. Make sure the wire can move freely. Mark the location of the horn.

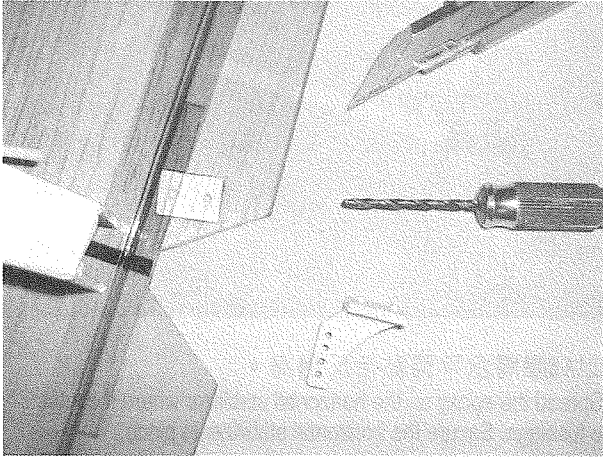


水平/垂直尾翼組合 ASSEMBLING THE HORIZONTAL AND VERTICAL STABILIZER



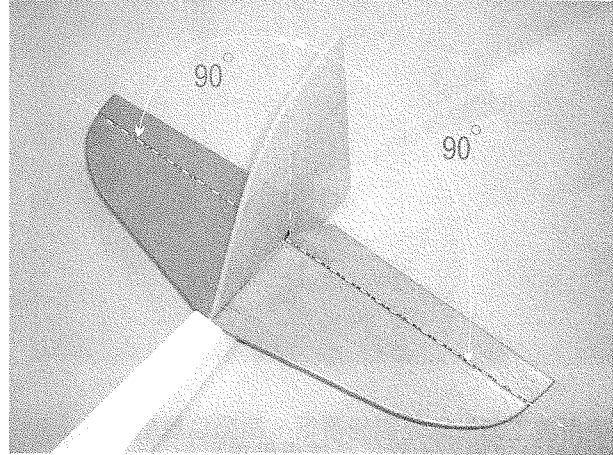
□ 抽出傳動鋼線, 割除包覆紙並以鑽頭修整兩處小孔, 切短舵角器之兩尖角留下2mm, 確定可平整置於正確位置。

□ Remove the Z wire and the control horn. Using a sharp hobby knife, carefully cut away the covering inside the lines marked above and don't cut into the wood. Trim the two pins of the control horn to the length of 2mm.



□ 以AB膠將垂直翼黏合於水平翼預留之位置, 注意垂直翼對正機身中心線並與水平翼成90度角。

□ Spread epoxy on the vertical stabilizer where it contacts the fuselage and to the bottom of the stabilizer where it will seat on the horizontal stabilizer. Fit the vertical stabilizer in position. Check to be sure that the vertical stabilizer is perpendicular to the horizontal stabilizer.



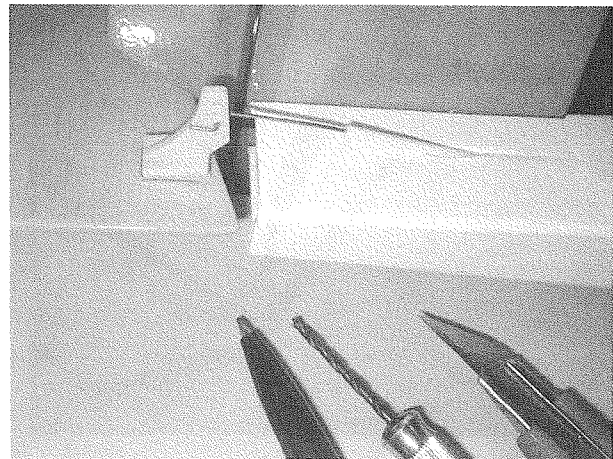
□ 割除垂直翼前端兩側各3mm寬之包覆紙。

□ Cut out the 3mm covering on the front point of vertical stabilizer.

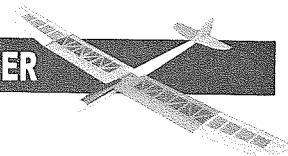


□ 舵角器底部算起第二孔穿過傳動鋼線Z形端, 描出方向舵待黏合方形位置, 注意傳動鋼線須保持順暢。

□ Place one control horn on the rudder and insert the Z wire through the second hole on the horn. Make sure the wire can move freely. Mark the location of the horn.

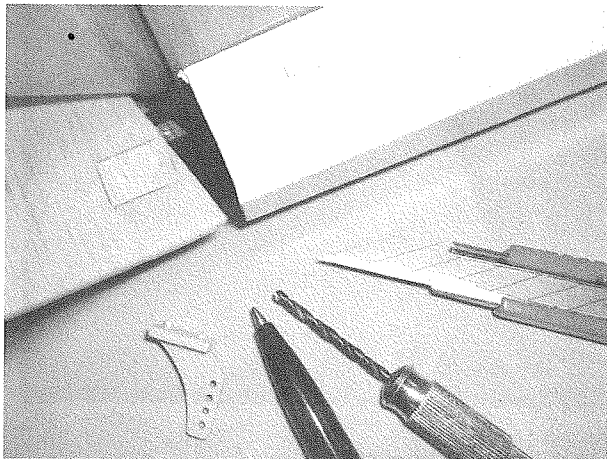


水平/垂直尾翼組合 ASSEMBLING THE HORIZONTAL AND VERTICAL STABILIZER



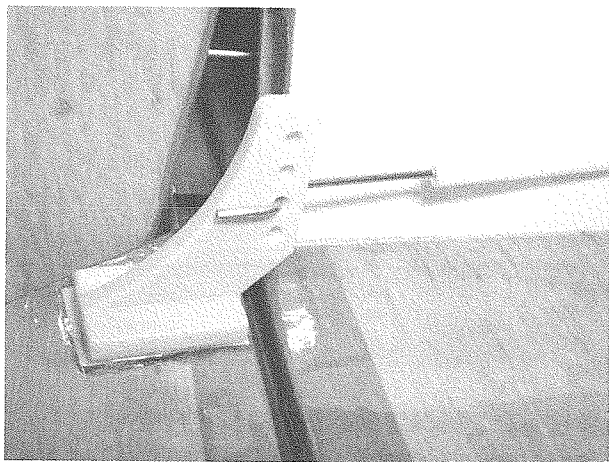
□ 抽出傳動鋼線, 割除包覆紙並以鑽頭修整兩處小孔, 切短舵角器之兩尖角留下2mm, 確定可平整置於正確位置。

□ Remove the Z wire and the control horn. Using a sharp hobby knife, carefully cut away the covering inside the lines marked above and don't cut into the wood. Trim the two pins on the bottom of the control horn to the length of 2mm.



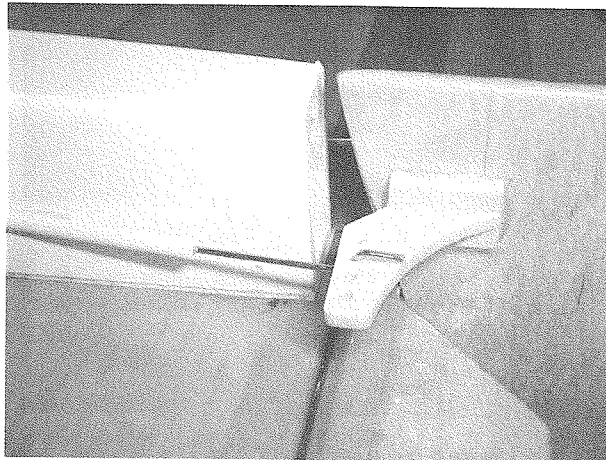
□ 先將舵角器底部算起第二孔穿過傳動鋼線Z形端。

□ Insert the Z wire through the second hole on the control horn.



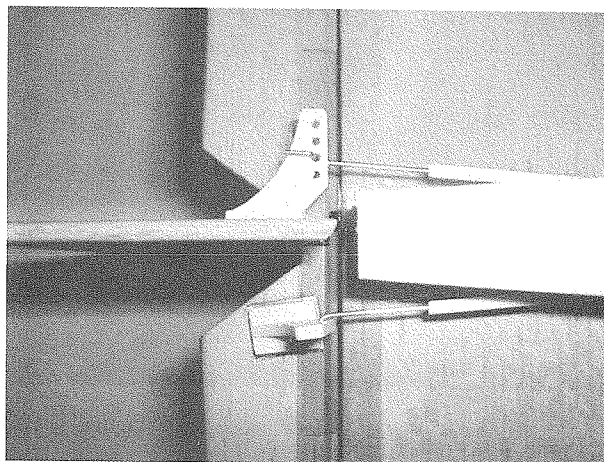
□ 以AB膠將舵角器黏合於方向舵上預留之位置。

□ Spread epoxy on the bottom of the control horn and secure the horn on the preserving location on the rudder.

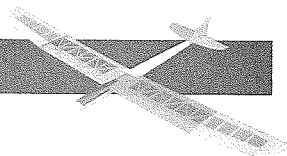


□ 重複上述動作將另依各舵角器黏合於升降舵上預留之位置。

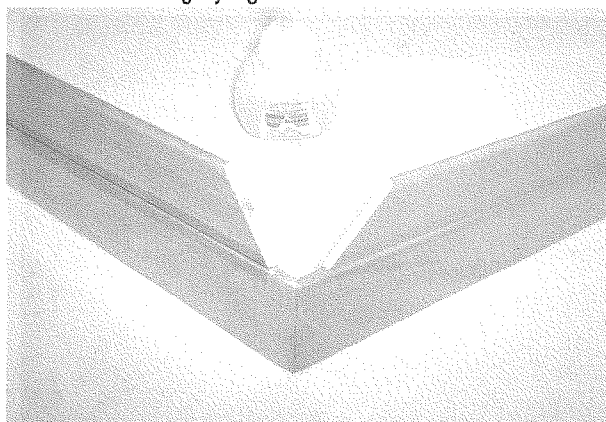
□ Insert the other Z wire through the second hole on the control horn. Spread epoxy on the bottom of this control horn and secure this horn on the preserving location on the elevator.



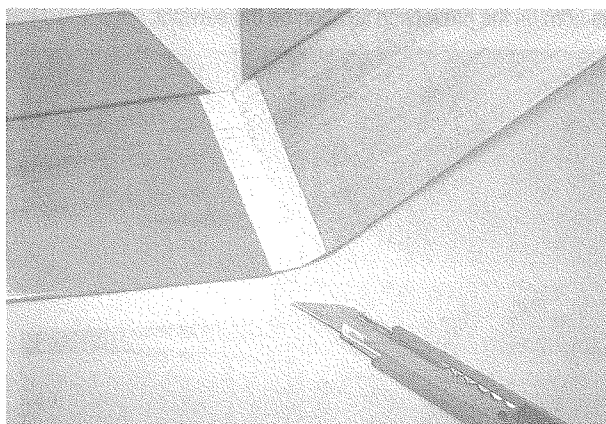
V型尾翼組合 ASSEMBLING THE V TAIL



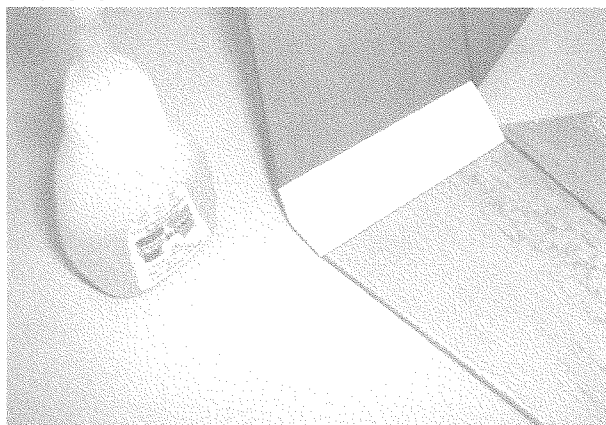
- 如圖將左右尾翼以瞬間膠黏合。
- Spread generous instant glue on the joint area of both tail wings and secure them tightly together.



- 小心割除中間三角材黏合位置之包覆紙，勿傷及巴爾沙木面。
- Trial fit the reinforcement block (triangle) between the two tail wings. Using a pencil, trace around the reinforcement block where it meets the V tail wing. Using a sharp hobby knife carefully cut away the covering inside the lines and doesn't cut into the wood.

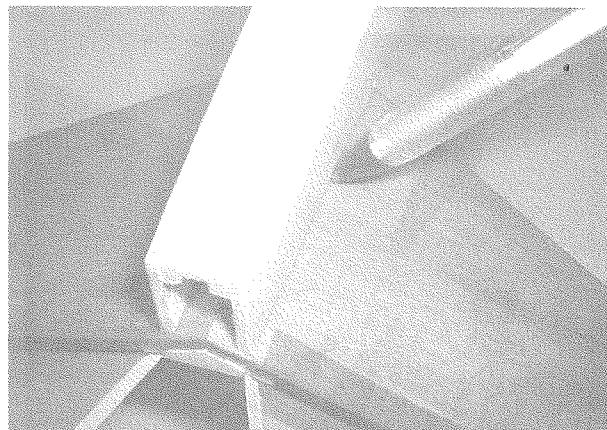


- 以瞬間膠黏合中間三角材。
- Spread generous instant glue on the reinforcement block where it contacts the V tail wing. Secure the block between the tail wings very tightly.

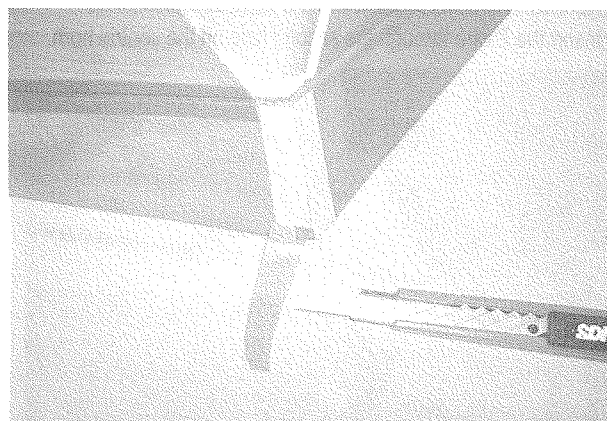


- 將黏合好之尾翼置於機尾缺口，對正中心並注意V型尾翼主機身之夾角，盡量調整尾翼並讓兩邊之夾角角度相同。請參閱第十一頁。

- Trial fit the V tail wing on the fuselage. Adjusting the location of V tail wing if necessary and try to make the angles between fuselage and the V tail wing be the same. Please refer to the page 11. Using a pencil, trace around the V tail wing where it meets the fuselage.

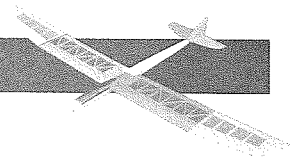


- 延線輕割並撕開包覆紙。
- Using a sharp hobby knife carefully cut way the covering between the lines.

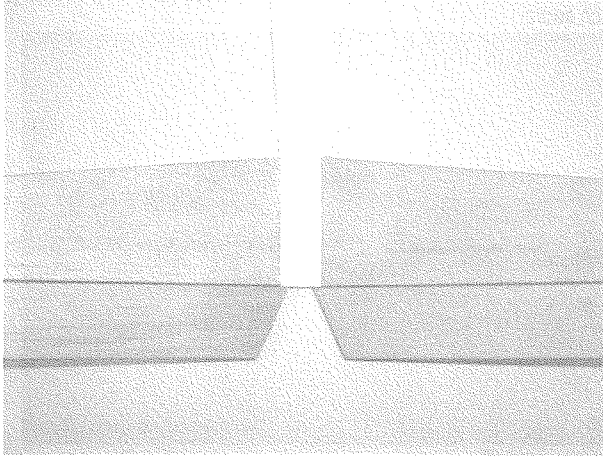


- 塗抹足夠之瞬間膠於尾翼與機身接合處。
- Spread generous instant glue on the V tail wing where it contacts the fuselage.

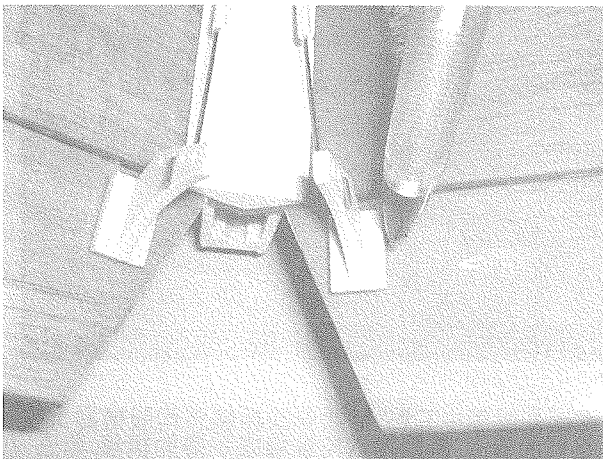




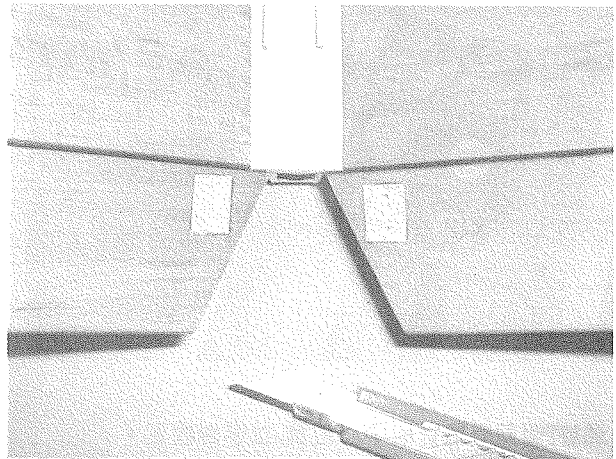
- 以瞬間膠黏合於機身。
- Secure the V tail wing tightly on the fuselage.



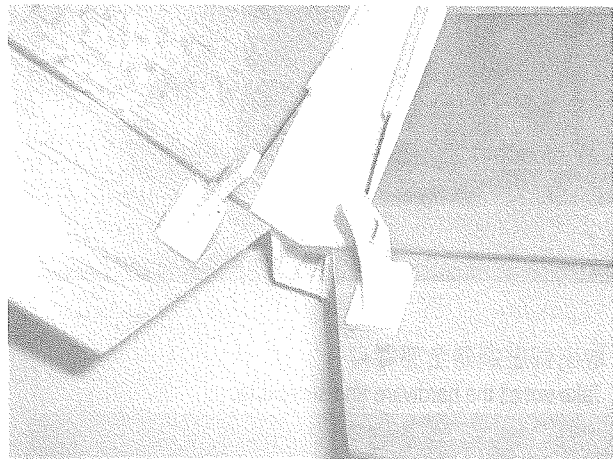
- 取舵角器底部算起第二孔穿過傳動鋼線Z形端, 描出兩邊舵面待黏合方形位置, 注意傳動鋼線須保持順暢。
- Cut two horns from the plastic tree. Insert Z wire of the left side through the second hole on the horn. Place the horn on the left tail wing. Mark the location.



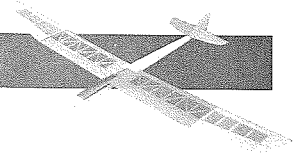
- 抽出傳動鋼線, 割除包覆紙並以鑽頭修整兩處小孔, 切短舵角器之兩尖角留下2mm, 確定可平整置於正確位置。
- Remove the Z wire and the control horn. Using a sharp hobby knife, carefully cut away the covering inside the lines marked above and don't cut into the wood. Trim the two pins on the bottom of the control horn to the length of 2mm. Repeating the same procedure to mark the place for gluing the control horn on the right tail wing.



- 先將舵角器底部算起第二孔穿過傳動鋼線Z形端, 再以AB膠黏合於左右尾舵之預留位置。
- Insert the pushrods through the second hole on the horns. Spread epoxy on the bottom of the horns and secure them on the preserving locations on the V- tail wing.

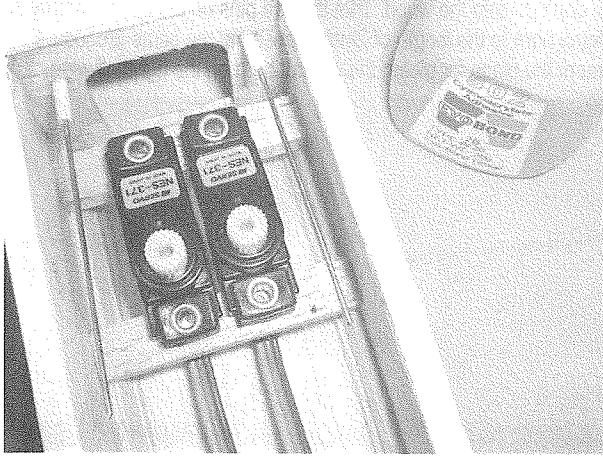


安裝伺服機 ASSEMBLING THE SERVOS



□ 取伺服機固定木條2支, 配合伺服機大小以瞬間膠黏合於機身。

□ Take 2 pieces of wood stick from the hardware bag. Place stick inside the fuselage. Adjust the location for match the length of the servos. Gluing inside the fuselage by instant glue.



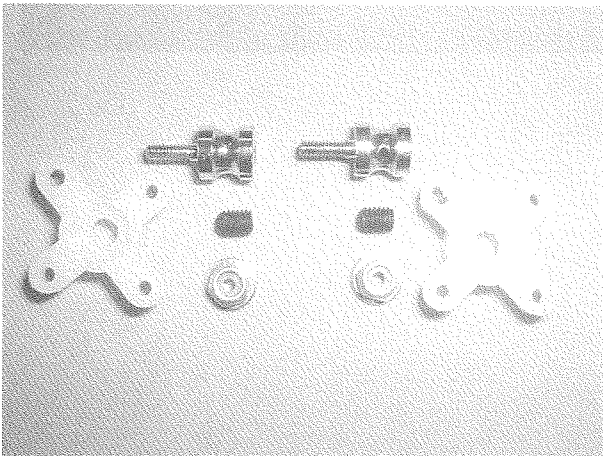
□ 調整2個伺服機對稱中心位置, 以螺絲固定。

□ Place the servos on the sticks. Screw the servos in place.



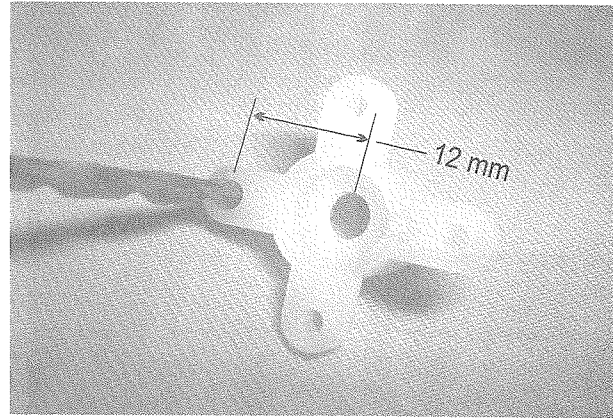
□ 取出伺服擺臂全部零件。

□ Take out all the hardware and servo arm.



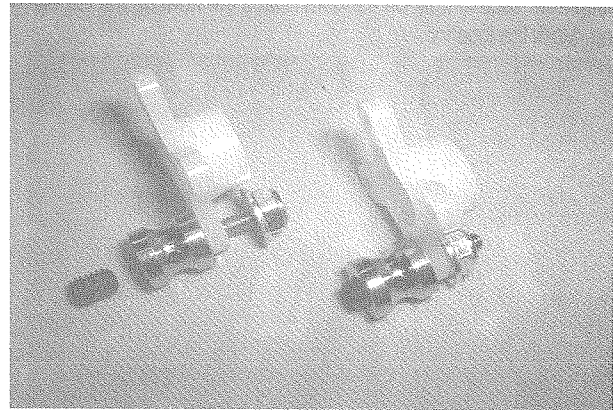
□ 伺服機擺臂鑽 $\phi 2$ mm孔。

□ Use a 2.0mm drill bit to open up the holes in the servo arm of each servo.



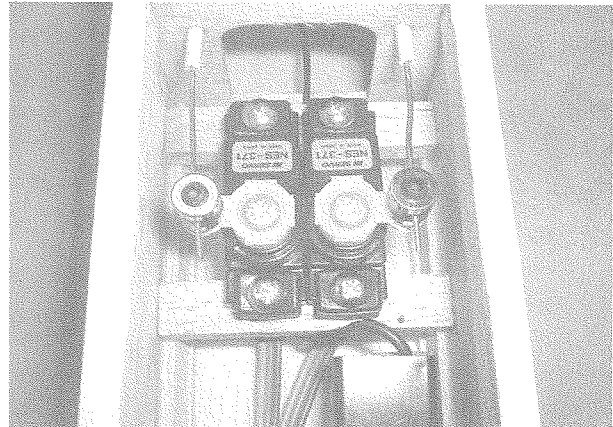
□ 再裝配金屬調整頭、螺帽與內六角螺絲, 調整螺帽鬆緊度使其轉動順暢。

□ Insert the pushrod connectors into the holes in the servo arms. Allow the connectors to be free to move.

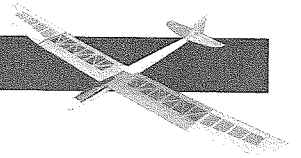


□ 確認伺服機中立點, 穿過傳動鋼線將伺服機擺臂安裝於伺服機上, 鎖緊內六角螺絲固定傳動鋼線, 剪去過長的傳動鋼線。

□ Adjust all the trims on the transmitter to their neutral positions. Make sure the servo horn is in its neutral or electrical zero position. Insert the pushrod into the pushrod connector and tighten the pushrod connectors with the hex driver.

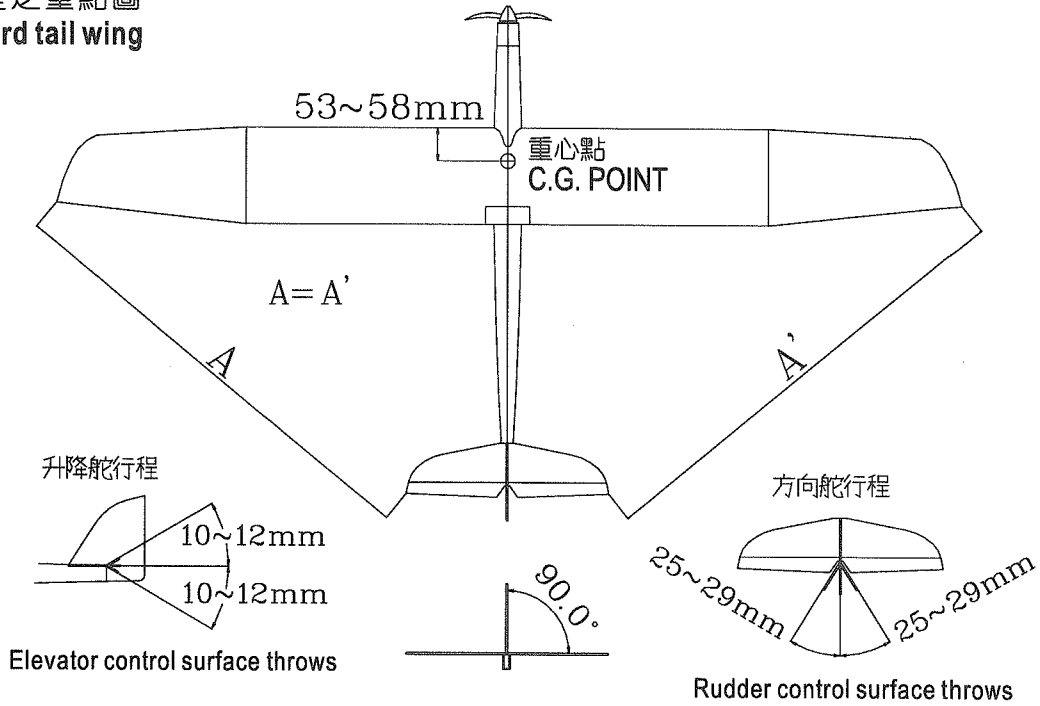


檢查重心點 CHECKING THE C.G. POINT

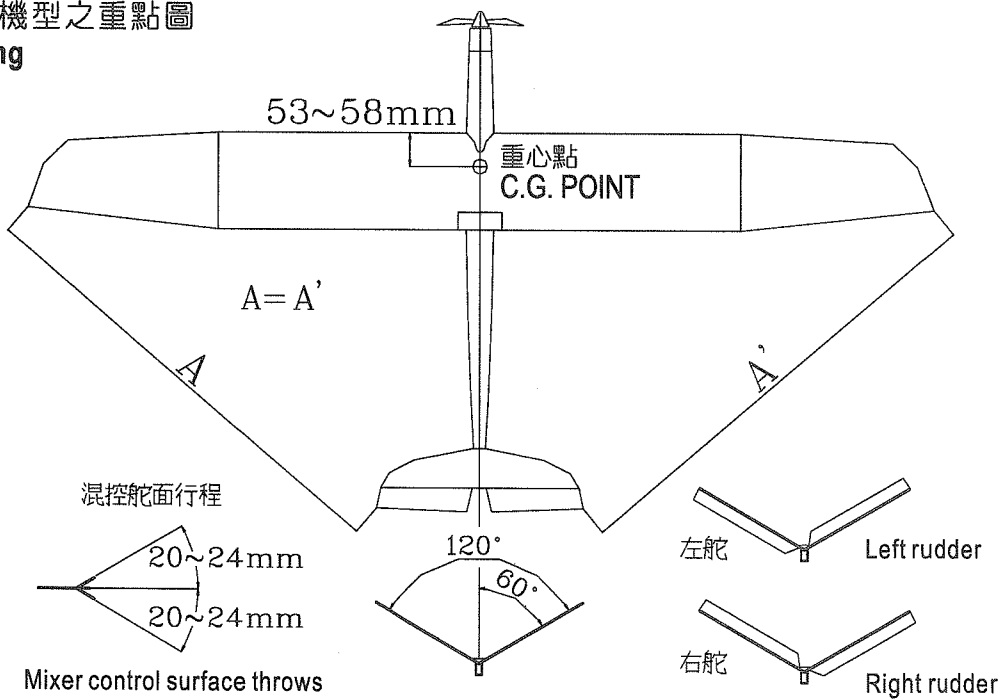


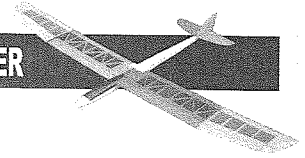
- 調整電池位置量測重心點, 調整舵面動作量。
- Check the center of gravity of your model. Place the battery pack inside the fuselage so that the model will balance properly.

標準型之重點圖 Standard tail wing



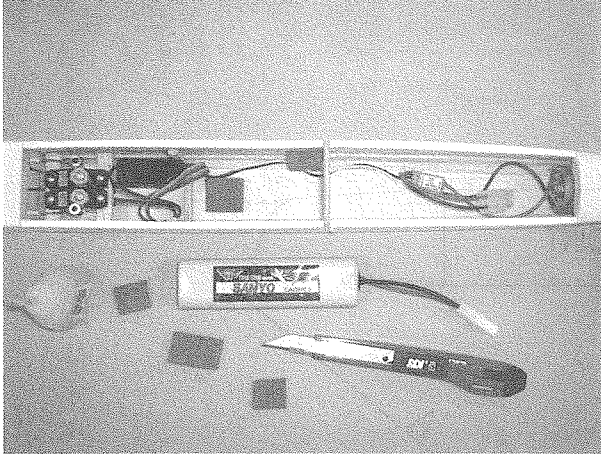
V形尾翼機型之重點圖 V-tail wing





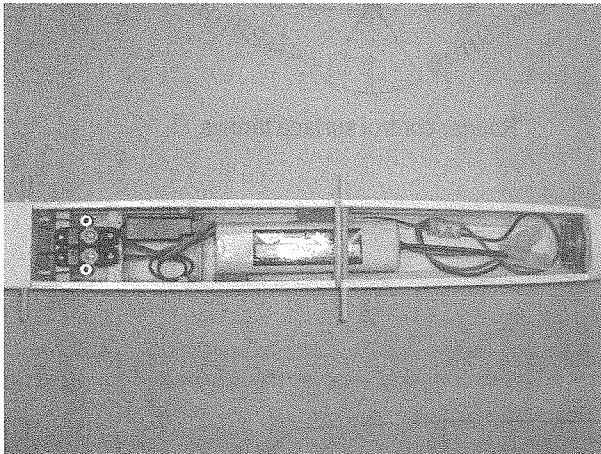
□ 依量測之重心點確認電池位置, 依電池形狀裁切硬質泡棉。

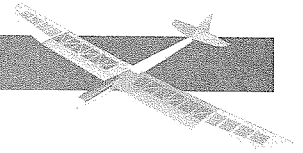
□ Use hobby knife to cut the EVA foam for holding the battery in place.



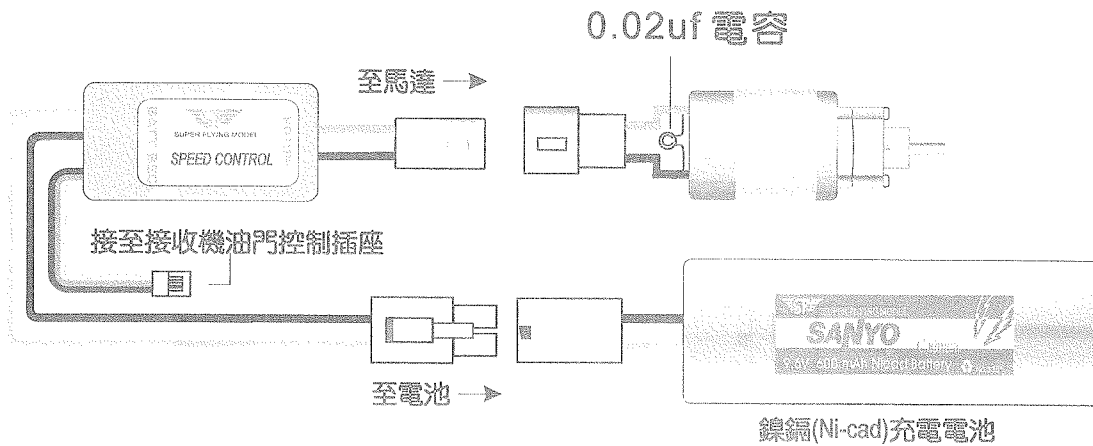
□ 瞬間膠黏於機身內側及底部, 利用磨擦力固定電池, 鬆緊可自行斟酌。

□ Gluing the foam inside the fuselage. Place the battery inside the fuselage.





請勿移除馬達上 0.02uf 抑制雜訊電容。



警告!

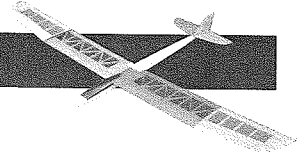
電源連接時，請注意電壓極性是否正確，否則會造成電子變速器損壞。

規格:

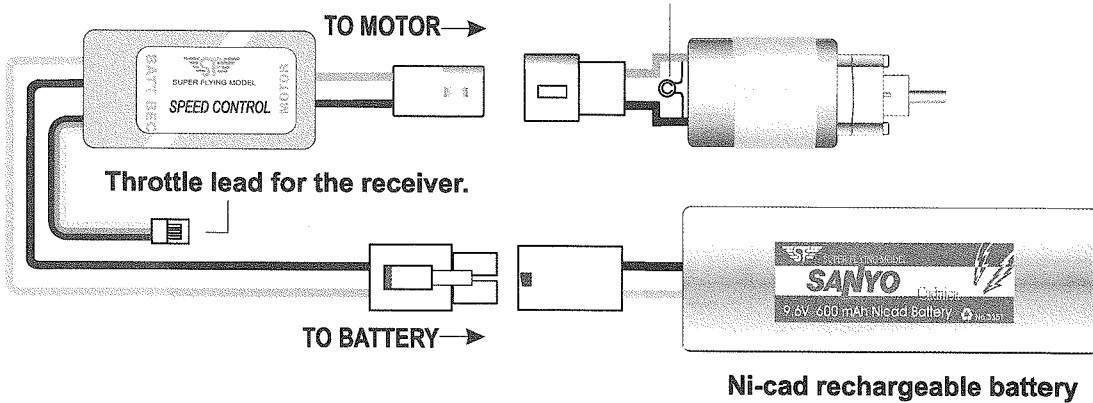
- 1.輸入電壓：7.2 ~ 12 V
- 2.工作頻率：2Khz
- 3.B.E.C.輸出電壓：直流5 V，最大值1500mA
- 4.最大工作電流：8 安培

安裝說明:

- 1.組裝前請先確定馬達接頭未連接至電子變速器。
- 2.將電子變速器訊號線插頭，接至接收機油門控制孔。
- 3.打開發射器電源，將油門撥桿撥至中立位置。如果使用微電腦型遙控器者，請調整油門ATV比例至100%。
- 4.將電池接上電子變速器，連接時請注意電壓極性是否正確，否則造成電子變速器燒毀。
- 5.具有PCM功能之遙控器，建議將失控安全模式設定至低速運轉。



0.02uf capacitor is pre-installed between the positive and negative leads on the motor. DO NOT REMOVE THE CAPACITOR.



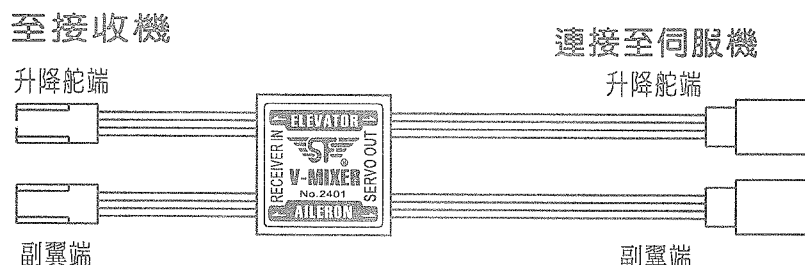
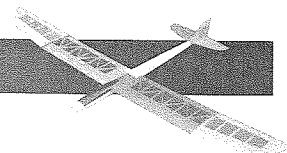
WARNING!
ENSURE THE PROPER POLARITY WHEN MAKING CONNECTIONS, OR THE SPEED CONTROL WILL BE DAMAGED.

Specification:

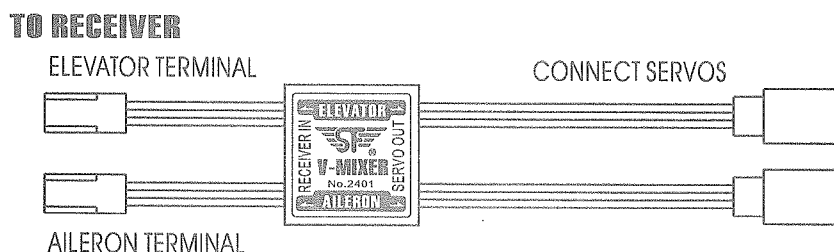
1. Input voltage: 6 to 10 cells, 7.2 to 12 volts.
2. Frequency: 2Khz.
3. BEC Voltage: 5 volts DC, 1500mA maximum.
4. Maximum current: 8 amps.

INSTRUCTION:

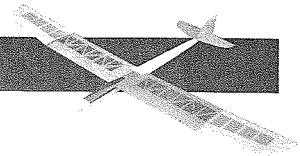
1. ENSURE THE ELECTRIC MOTOR IS NOT CONNECTED.
2. PLUG THE SPEED CONTROL THROTTLE LEAD INTO THE THROTTLE SERVO RECEPTACLE ON THE RECEIVER.
3. TURN ON THE TRANSMITTER AND PLACE THE THROTTLE CONTROL STICK IN THE CENTER POSITION. IF YOU USE A COMPUTER TRANSMITTER, ADJUST THE THROTTLE ATV TO 100%.
4. CONNECT THE BATTERY PACK TO THE SPEED CONTROL. NOTE THE POSITIVE AND NEGATIVE LEADS. ENSURE PROPER POLARITY WHEN MAKING THE CONNECTION. INCORRECT POLARITY WILL DAMAGE THE SPEED CONTROL.
5. IF YOU USE A PCM TRANSMITTER , SET THE FAIL-SAFE MEMORY ON LOW SPEED.



1. 為避免混控板損壞，使用前請務必確認插頭電壓正/負極性是否正確。
2. 使用發射機正/逆轉開關調整所需設定位置。
3. 中立點校正可調整發射機微調開關或調整伺服擺臂位置。



1. NOTE THE POSITIVE AND NEGATIVE LEADS. ENSURE PROPER POLARITY WHEN MAKING THE CONNECTION.
2. PUT THE TRANSMITTER REVERSE SWITCH ON THE CONTRARY IN CASE IT SETS UP WRONG.
3. ADJUSTING THE CENTRAL THROWS ON THE TRANSMITTER FUNCTION D/R OR TRAVEL ADJ CAN SET UP IDEAL ANGLE. THE NORMAL TYPE TRANSMITTER MAY BE NECESSARY TO ADJUST SERVO ARM HOLE INSIDE OR OUTSIDE TO GET CORRECT ANGLE.



	<p>1. Connect charger to car battery. Red wire to positive terminal. Green LED light up.</p>	<p>1. 連接車用12V鉛酸電池 紅色夾子接正電 黑色夾子接負電 綠色LED燈亮</p>
	<p>2. Select charge current. Over AA600mA:1-1.5A Over Sub-C 1300mA:1.5-3A</p>	<p>2. 選擇充電電流 AA600mA以上：1-1.5A Sub-C 1300mA以上：1.5-3A</p>
	<p>3. Transmitter (TX), and flight drive batteries AA 7-12 cells. Transmitter (TX), and flight drive batteries AA/Sub-C over 1300mAh. (7-12 cells)</p>	<p>3. 發射機(TX)、飛行電池組 AA 7-12類 發射機(TX) 飛行電池組 AA/ Sub-C 1300mAh以上</p>
	<p>Only 3-6 cells, receiver (RX), flight drive batteries Over 600mAh. Receiver batteries and flight drive batteries up to over 1700mAh.</p>	<p>只有3-6顆裝電池、接收機(RX)，飛行電池組600mA以上、接收機電池、飛行電池組超過1700mAh.</p>
	<p>4. Connect battery Red LED "QUICK" will flash.</p>	<p>4. 連接電池充電時，紅色LED燈快閃</p>
	<p>5. Charge process ends automatically. RED LED light up. Approx 100mA. Tric charge.</p>	<p>5. 充電完全後，紅色LED燈全亮並以100mA 慢充</p>

WARNING:

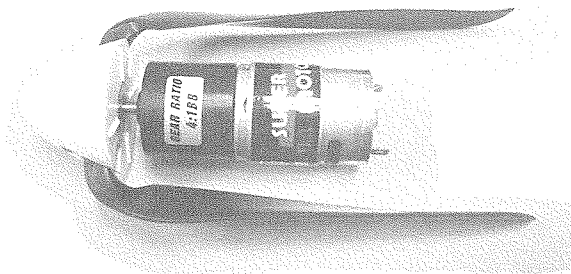
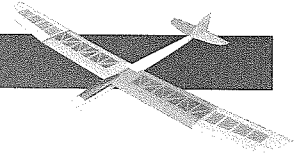
1. If connect to the wrong pole and make the charger short cut, please change 5A fuse.
2. If select "7-12 cells" to charge 3-6 cells, the charger will auto-cut-off.
3. The input voltage must be 12V-14V. If use power supply, please note the voltage or it will break down the charger.
4. Don't connect to the wrong pole of the battery pack. It will break down the charger.
5. If input under 9V and green LED doesn't light up, the battery can't be charged.
6. Don't charge the battery in the high temperature area.

Optional accessories (選擇配件):

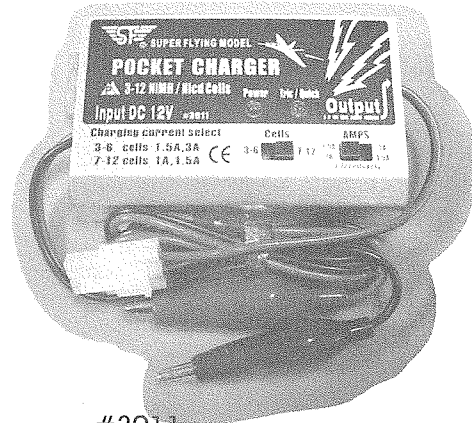
1. #4051 FUTABA transmitter connector
2. #4052 JR transmitter connector
3. #4053 FUTABA receiver connector

- 注意事項：
1. 電源端反接或保險絲燒斷，需更換 5A 保險絲。
 2. 選擇 7-12 cells 檔位來充 3-6cells 時，充電器會自動停止充電。
 3. 輸入電源為12V-14V 時，選擇電源供應器需小心調整。
 4. 輸出端電源正負極不能反接電池端，以免損壞充電器。
 5. 輸入電源電壓低於 9 V 時，綠色 LED 不亮表示無法充電。
 6. 勿在高溫超過30°C以上的密閉車內充電。

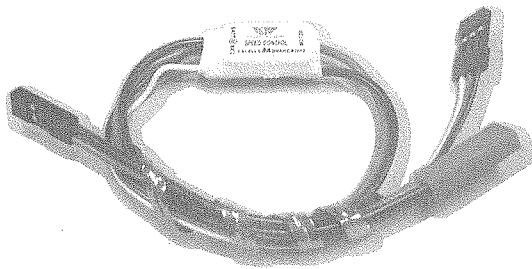
選購配件 OPTIONAL ACCESSORIES



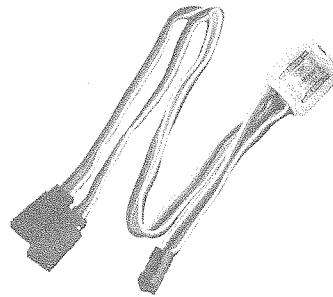
#2113
飛行組合
4:1 BB POWER SYSTEM



#3911
電池充電器
POCKET CHARGER



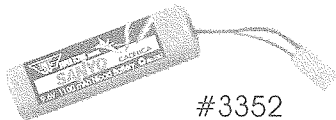
#2403
8A-電子變速器
8A-SPEED CONTROL



#2401
混控板
V - TAIL MIXER



#3351
600 mAh 充電電池
600 mAh Battery Pack



#3352
1100 mAh 充電電池
1100 mAh Battery Pack

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<http://www.mth.com.tw>

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