

E-STARTER

易速達



SPECIFICATIONS

規格及諸元

GW/ESTARTER EPS100C	GW/ESTARTER EPS350C	GW/ESTARTER EDP400C	GW/ESTARTER EPS100C	GW/ESTARTER EPS350C	GW/ESTARTER EDP400C
Length: 725 mm (30.54 in)	725 mm (30.54 in)	725 mm (30.54 in)	全 長: 725 公厘 (30.54 英吋)	725 公厘 (30.54 英吋)	725 公厘 (30.54 英吋)
Wing Span: 960 mm (37.80 in)	960 mm (37.80 in)	960 mm (37.80 in)	翼 展: 960 公厘 (37.80 英吋)	960 公厘 (37.80 英吋)	960 公厘 (37.80 英吋)
Wing Area: 17.1dm ² (265sq in)	17.1dm ² (265sq in)	17.1dm ² (265sq in)	主翼面積: 17.1dm ² (265sq 英吋)	17.1dm ² (265sq 英吋)	17.1dm ² (265sq 英吋)
Flying Weight: 370 g (13.02 oz)	395 g (13.9 oz)	480 g (16.9 oz)	主翼重量: 370 克 (13.02 盎司)	395 克 (13.9 盎司)	480 克 (16.9 盎司)
Wing Loading: 21.6g/dm ² (7.0oz/sq ft)	23g/dm ² (7.6oz/sq ft)	28g/dm ² (9.0oz/sq ft)	翼面荷重: 21.6g/dm ² (7.0 盎司/平方呎)	23g/dm ² (7.6 盎司/平方呎)	28g/dm ² (9.0 盎司/平方呎)
Power System: EPS-100C	EPS-350C	EPS-400C	動力系統: EPS-100C	EPS-350C	EPS-400C
Propeller: EP-1080	EP-1080	EP-7035	螺旋槳: EP-1080	EP-1080	EP-7035
Battery Required: 2/3AA270-400mAh / 7.2V	2/3AA270-400mAh / 7.2V	2/3AA270-400mAh / 7.2V	電池規格: 2/3AA 270-400mAh / 7.2V	2/3AA 270-400mAh / 7.2V	2/3AA 270-400mAh / 7.2V
Servo: PICO / NANO	PICO / NANO / MICRO / MINI	PICO / NANO / MICRO / MINI	伺服機: PICO / NANO	PICO / NANO / MICRO / MINI	PICO / NANO / MICRO / MINI
Receiver: RAN / RBN	RAN / RBN	RAN / RBN	接收機: RAN / RBN	RAN / RBN	RAN / RBN
Speed controller: ICS-100 / ICS-300	ICS-300 / ICS-400	ICS-400	電子變速器: ICS-100 以上	ICS-300 以上	ICS-400
Radio Required: 3-4 channel radio	3-4 channel radio	3-4 channel radio	遙控裝置: 3-4 動作	3-4 動作	3-4 動作

CONTENTS OF KIT(PARTS LIST)

01. E-STARTER Fuselage(L)	x1	13. Main Landing Gear	x1	26. Elevator Linkage Wire ϕ 1.4mm	x1
02. E-STARTER Fuselage(R)	x1	14. Bamboo Stick (ϕ 3x240mm)	x3	27. Push Rod ϕ 0.9mm	x3
03. E-STARTER Main Wing	x1	15. Bamboo Stick (ϕ 3x125mm)	x1	28. Plastic Parts Frame"C"	x1
04. E-STARTER Horizontal Tail	x1	16. Plastic Parts Frame"A"	x1	29. Cowling Fixing Screw (M1.4)	x9
05. E-STARTER Vertical Fin	x1	17. GWS Glue	x1	30. Bolt M3x30mm	x1
06. E-STARTER Bamboo		18. Rubber Band	x12	31. Washer	x1
- Stick Reinforcement	x1	19. Double - Sided Foam Tape	x4	32. Cowling Seats	x4
07. Hinge	x1	20. Electric Power System	x1	33. Rubber Grommet	x1
08. Ultra-light Wheel Rim(1")	x1	21. Plastic Pushrod tube(Transparent)	x1	34. Cowling	x1
09. Ultra-light Wheel Rim(3")	x2	22. Plastic Tube(Black)	x2	35. Nut	x1
10. Main Wing Reinforcement	x1	23. Rubber Grommet	x1	36. E-STARTER Decal	x1
11. Battery Seat	x1	24. Aileron Linkage Wire ϕ 1.4mm(A)	x1	37. GWS Decal	x1
12. Tail Dragger	x1	25. Aileron Linkage Wire ϕ 1.4mm(B)	x1	38. Instruction Manual	x1

套 件 內 容

01. E-STARTER 左側機身(L)	x1	13. 主輪架	x1	26. U型連桿	x1
02. E-STARTER 右側機身(R)	x1	14. ϕ 3X240mm竹棒	x3	27. ϕ 0.9mm 推拉桿	x3
03. E-STARTER 主翼	x1	15. ϕ 3X125mm竹棒	x1	28. 塑膠配件"C"	x1
04. E-STARTER 水平尾翼	x1	16. 塑膠配件"A"	x1	29. M1.4X9 螺絲	x9
05. E-STARTER 垂直尾翼	x1	17. GWS 專用膠水	x1	30. M3X30mm 螺絲	x1
06. 支架補強片	x1	18. 橡皮筋	x12	31. 平整圈	x1
07. 活頁片	x1	19. 泡棉雙面膠	x4	32. 固定片	x4
08. 輕量輪 1"	x1	20. 動力組	x1	33. 伺服機膠墊	x1
09. 輕量輪 3"	x2	21. 拉桿套管	x1	34. 整流罩	x1
10. 主翼加強片	x1	22. 黑套管	x2	35. 電池座	x1
11. 電池座	x1	23. 膠墊	x1	36. E-STARTER 機身貼紙	x1
12. 尾輪架	x1	24. ϕ 1.4mm運動桿 A	x1	37. GWS 貼紙	x1
		25. ϕ 1.4mm運動桿 B	x1	38. 說明書	x1

PYPOP-1030
E-STARTER Decal 貼紙 1pce.



PYPOP-1003
GWS Decal 貼紙 1pce.



GW/ESTARTER-FAS1



PHWIN-1011-H-
E-STARTER Horizontal Tail
水平尾翼

GW/ESTARTER-FAS2

PHWIN-1011-V-
E-STARTER
Vertical Fin
垂直尾翼



PHWIN-1011-
E-STARTER 主翼 Main Wing



PYCRO-1001- Hinge(10x18mm)
10X18活頁片(15合1)



PTSHE-1002- 支架補強片
Bamboo Stick Reinforcement

GW/P51D-FAS4 (LINKAGE PARTS 連接組)

PTMEWA1001-
鋼絲線 0.9mm(推桿線)X3 Push Rod 0.9mm x 3pcs.

Rubber Grommet x 2pcs.
PTGUM-1014-
膠墊X2

PTMEW-1015-A- Aileron Linkage Wire 鋼絲線 1.4mm副翼連動桿(A/B)

PTMEW-1015-B-

Elevator Linkage Wire 鋼絲線 1.4mm升降舵U型連桿
PTMEW-1015-U-
鋼絲線 1.4mm升降舵U型連桿
PTFLX-1001-
塑膠管 直徑 2.5mmX25mm(黑)

PTSTK-1002- 竹棒 3X240mm
Bamboo Stick 3x240mm x 1pc.

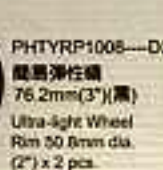
PQTUBH035-T 拉桿管 3.0 460mm(透明)
Plastic Pushrod tube(Transparent) 3x 460mm 1pc.

GW/ESTARTER-FAS3 (LANDING GEAR PARTS 起落架組件)

PTMEW-1017-M-
鋼絲線 2mm(主輪架)
Main Landing Gear 2.0mm
x 1 pc.

PMSPC-1013- 主翼加強片
Main Wing Reinforcement

PTMEWA1010-T-
鋼絲線 1.2mm(尾輪架)
1.2mm Tail Dagger x 1 pc.



Bamboo Stick 3x125mm x 1 pc.

PTSTK-1003- 竹棒 3X125mm

PMSTD-1007- 電池座 Battery Seat x 1 pc.

PTSTK-1002- 竹棒 3X240mm Bamboo Stick 3x240mm x 3pcs.

EPS-100C (ACCESSORIES 動力組 A)

GW/ZERO-FAS100

PTPROA1080(螺旋槳(EP1080)橘色)
Propeller (EP1080) x 1 pc.



GWEPS-100C (EPS) 動力系統
PMCHSA1005- (動力架10x10x90白木) x 1 pc.
PHSPR100125D- EPS Mount 10x10x90mm (white wood)
(螺旋槳25mm) Spinner 25mm

EPS-300C (ACCESSORIES 動力組 A)

GW/ZERO-FAS300

PTPROA1080(螺旋槳(EP1080)橘色)
Propeller (EP1080) x 1 pc.



GWEPS-300C (EPS) 動力系統
PMCHSA1005- (動力架10x10x90白木) x 1 pc.
PHSPR100125D- EPS Mount 10x10x90mm (white wood)
(螺旋槳25mm) Spinner 25mm

EDP-400C (ACCESSORIES 動力組 A)

GW/SPITFIRE-FAS400

PMCHSA1005(螺旋槳(EP7035)橘色) Propeller (EP7035) x 1 pc.



AASMEOP400- (EPS400 組合)
Electric Power System
PMCHSA1005- (動力架10x10x90白木)
EPS Mount 10x10x90mm (white wood) x 1 pc.

PVINS-1058-
E-STARTER 說明書一本
Instruction Manual x 1 pc.



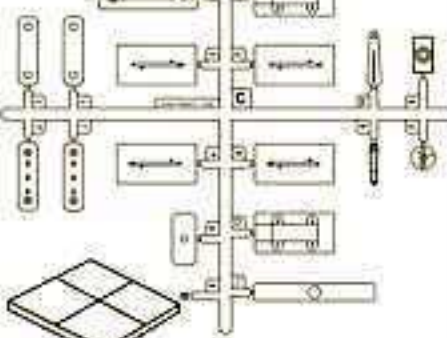
PVPEF-1040-
整流罩
Cowling x 1 pc.

GW/ZERO-FAS6 飛機共用零件包 PICO-ZERO MICRO ACCESSORIES C



PHTYRP1005-D2- 超輕彈性輪 76.2mm(3") (黑)
Ultra-light Wheel Rim 50.8mm dia. (2") x 2 pcs.
PHTYRP1005-D1- 超輕彈性輪 76.2mm(3") (黑)
Ultra-light Wheel Rim 50.8mm dia. (2") x 2 pcs.

PMSPC-1008-1- MICRO零件包(C) Plastic Parts Frame" x 1 set

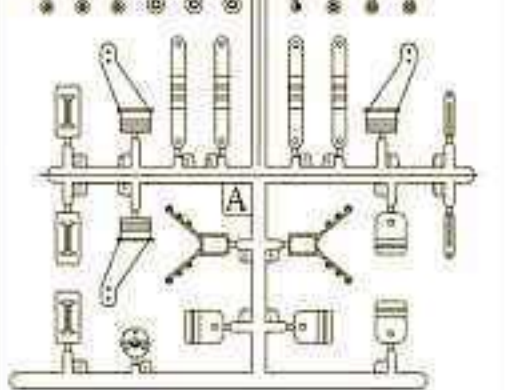


PMSPC-1002- 整流罩片ABS(1X2X5mm) cowling Seat x 4 pcs.

GW/P-STICK-FAS6 (A零件組) (ACCESSORIES)



6ADHP1003- GWS 專用膠水
GWS Glue x 1 pc.
85RBD-1001- 橡皮筋 8根
Rubber Band x 8 pcs.
PTCUB-1016- 雙面膠 4張
Double-sided Foam Tape x 4 pcs.



PMSPC-1001- Plastic Parts Frame" x 1 set

TOOLS AND ITEMS 所需工具及耗材

To assemble this airplane you will need to prepare some tools.

在組裝前需準備的工具：



Cutter Knife
美工刀



Pliers
尖嘴鉗



Triangle
三角板



Screwdriver
起子組



Nippers
斜口鉗



Scissors
剪刀



Drill
手鑽組



Paper Tape
美工紙膠帶



Alcohol
酒精



Clamp
夾子



Spray Paint
保麗龍噴漆



CA Glue
快乾膠



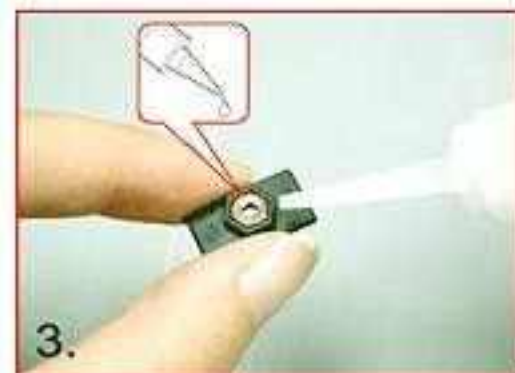
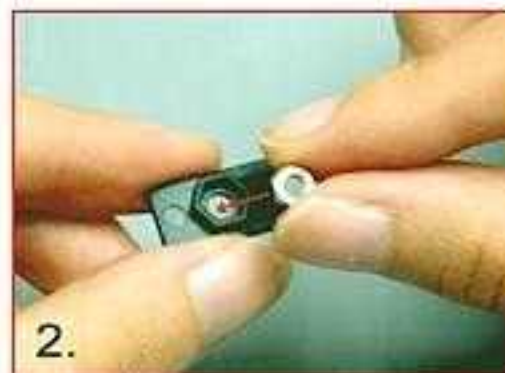
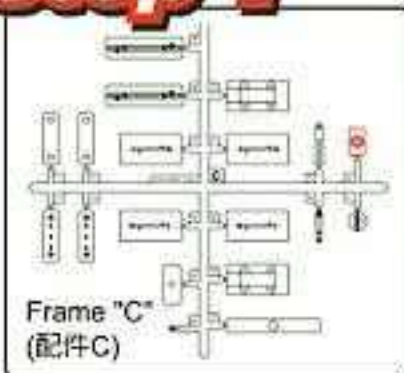
Epoxy
AB膠(5min分鐘)

RADIO CONTROL SYSTEM

飛行前所必要之裝備

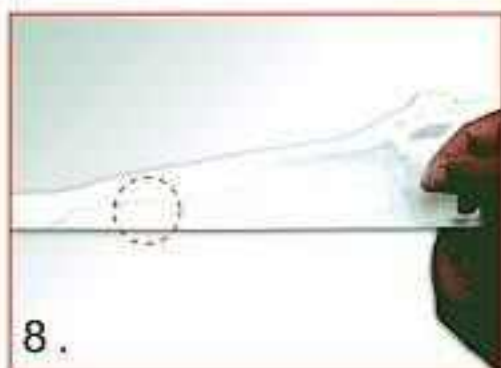
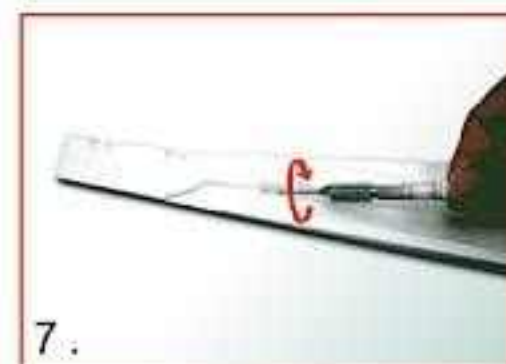
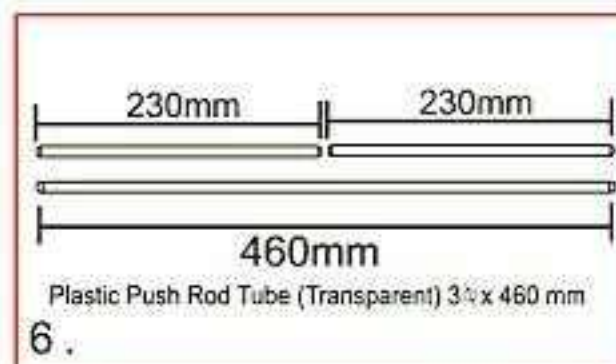
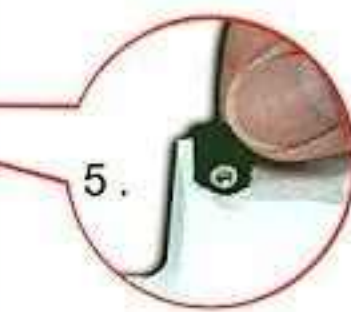
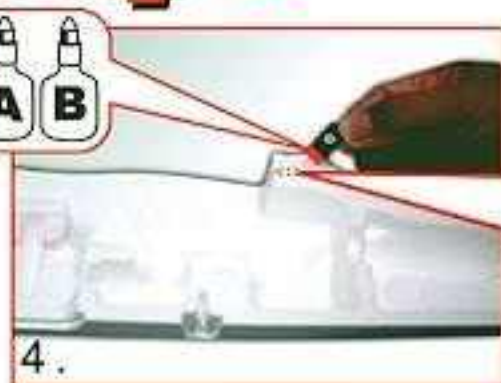


Step 1 步驟一



- Press the 3mm hexagonal nut into the plastic C (6) and apply a small amount of CA glue to the C (6).
- 將3mm螺帽置入配件C-6, 並於螺帽周圍以少許三秒膠固定。

Step 2 步驟二



- 將C-6及螺帽置入機身並塗上少許AB膠
- 將3mmx460mm塑膠導管如圖片, 切成230mmx2
- 將左右機身推拉桿導孔以3mm手鑽導通
- 將230mm塑膠分別插入機身推拉桿導孔
- 再以保力龍專用膠水接著固定

- Apply epoxy glue to the slot of fuselage, then put the C (6) in place.
- Cut the plastic tube to specific length as shown in the picture (230mm x 2).
- Drill 3mm holes into the L & R fuselage pushrod guide slot.
- Insert the plastic pushrod tube (230mm) into the hole, from inside of the fuselage and come out for approximately 10mm.
- Glue the tube in place with GWS glue.

機身組裝 FUSELAGE ASSEMBLY

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Step 3 步驟三



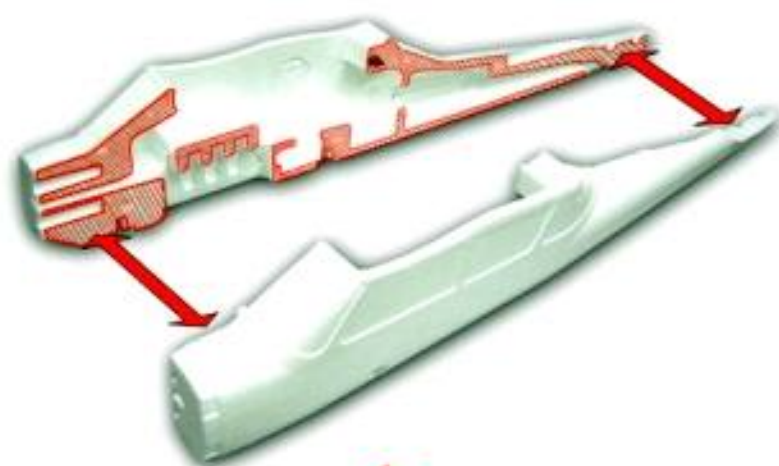
10. For bigger servo, please cut the red portion on fuselage.
欲裝大型之伺服機請將紅線切除



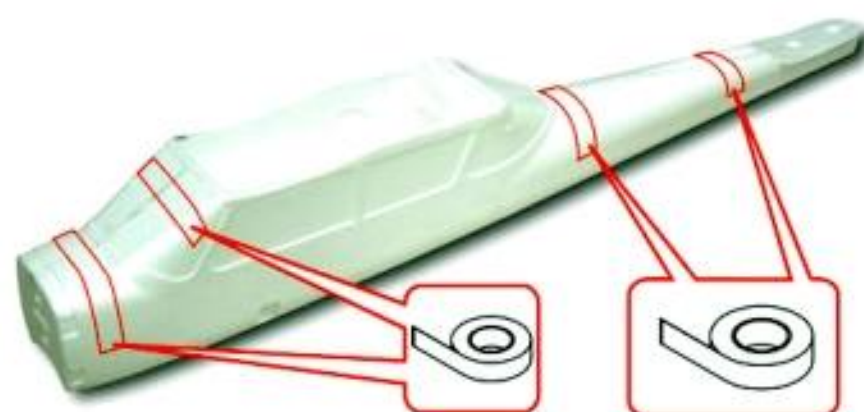
11. For bigger batteries, please cut the red portion.
欲裝大型之電池請將紅線切除



12. Once glued, fix in places in 5 or 6 position using either a very low tach masking tape and secure with tape that does not come in contact with the painted foam.



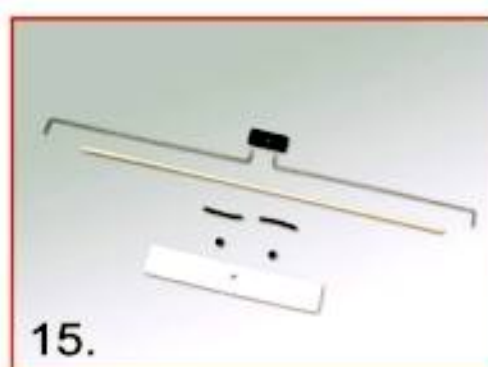
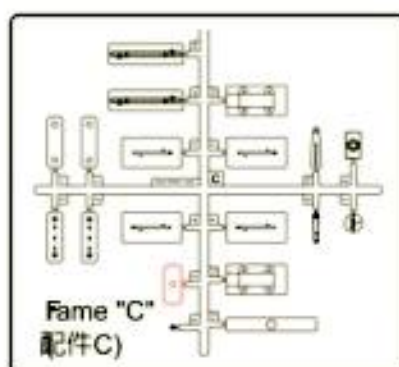
13. Apply GWS glue at the indicated area.
For faster cure time, you may use a 6-minute epoxy instead of the included glue.
將機身之一側如圖上專用膠水接著



14. 左右機身對齊接合，並以紙膠帶暫時固定，待膠水凝固約30分鐘後撕除

主翼組裝 MAIN WING ASSEMBLY

Step 1 步驟一



15. Prepare wing accesories



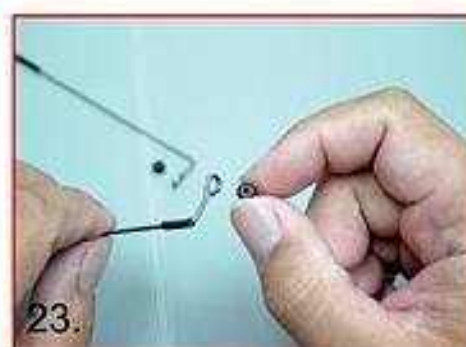
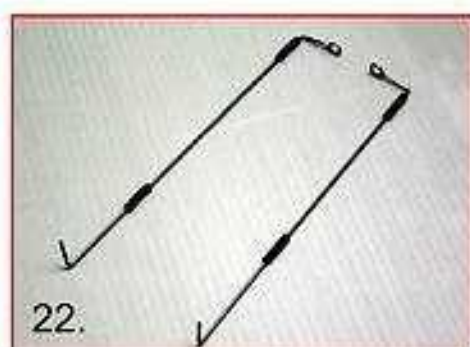
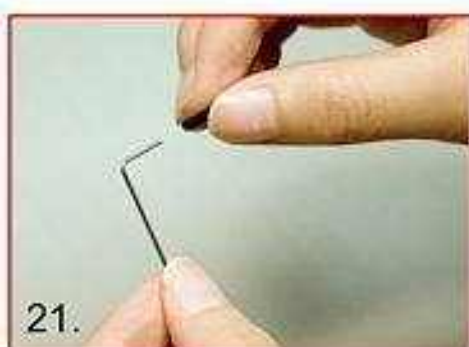
16. Cut the aileron apart from the main wing (both right & left) with a knife as per the groove.

17. 以美工刀沿副翼裁切線，裁切分離

Note: When you are cutting out the aileron some of the bevel on the hinge line needs to be cleaned with a sanding block.



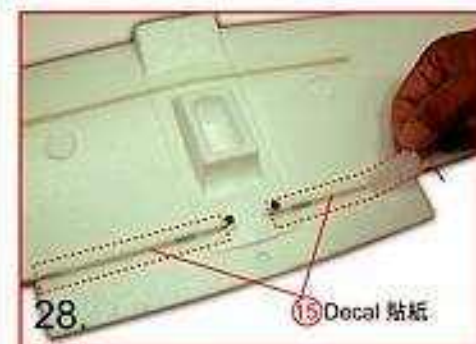
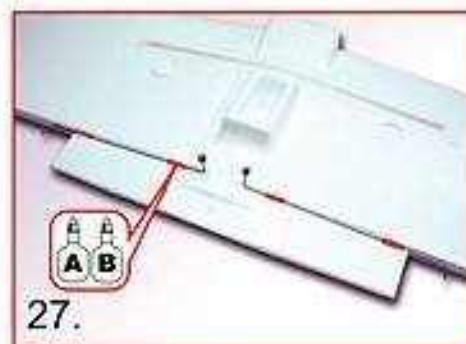
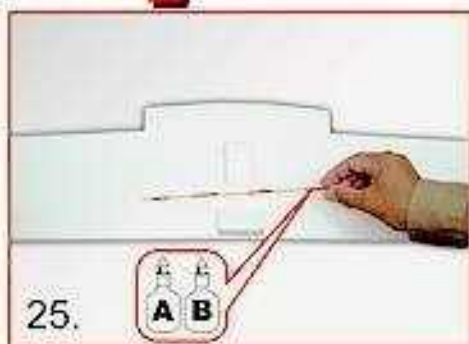
Step 2 步驟二



- (1) Aileron linkage wire (L&R)
- (2) Black rubber tube (X2 pcs)
- Cut the black rubber tube in half.
- Slide two of the rubber tube onto the aileron linkage wire.
- Push the rubber grommet into a coil of the aileron linkage wire.

- 取出左右副翼連動桿及黑色膠管X2
- 先將黑色膠管以美工刀等份對切成兩半
- 再把左右副翼連動桿分別各穿入兩段黑色膠管
- 套上膠墊
- 完成圖

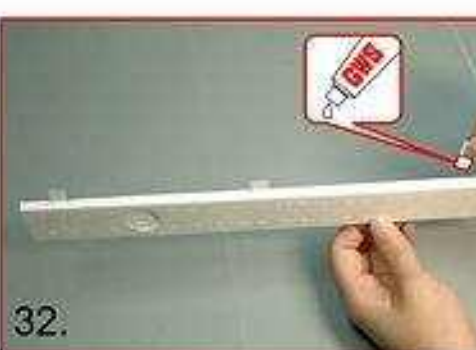
Step 3 步驟三



- Glue the bamboo stick for wing enforcement on the bottom of the wing. (leading edge)
 - Put the aileron linkage wire into the aileron slot and glue the rubber tube in places and trim the aileron wire as shown.
- Note: The channel for aileron torque rod needs to be cut deep so torque rod is on aileron hinge line.

- 將3x240竹棒置入凹槽內並塗上AB膠，再用14號貼紙貼上如圖：(25)(26)
- 將副翼拉桿放入凹槽內，並在套管上塗上AB膠，然後貼上15號貼紙。如圖：(27)(28)

Step 4 步驟四

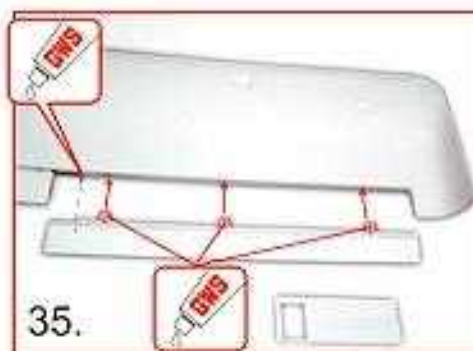
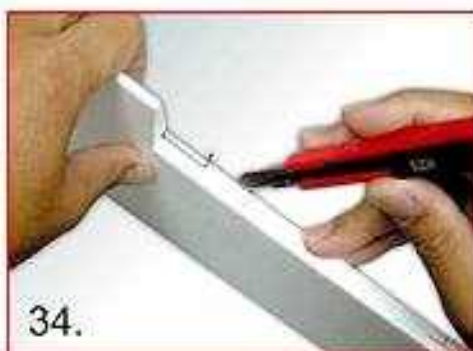


- Mark out the hinge (3 each side) and linkage wire location. Make a sign on the main wing, aileron and linkage wire.
- Drill 1.5 mm dia. & 10mm deep hole on the aileron and cut a slot to accommodate the wire.

- 在主翼副翼活頁位置及連動桿位置做上記號如圖：(29)
- 於連桿記號上鑽1.5mm孔並割除連桿導構如圖：(30)(31)

主翼組裝 MAIN WING ASSEMBLY

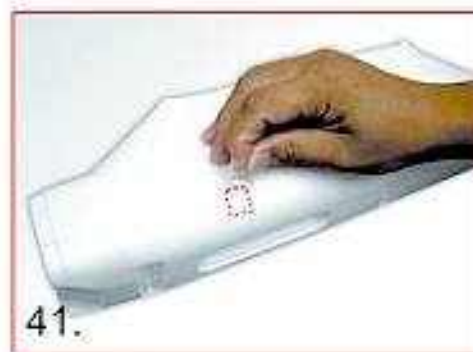
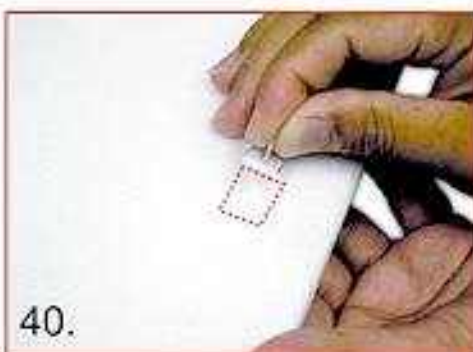
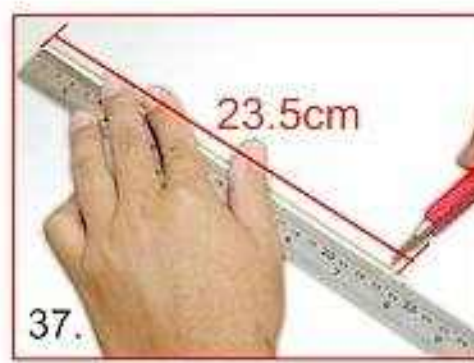
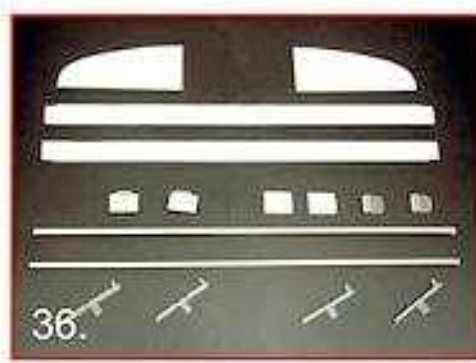
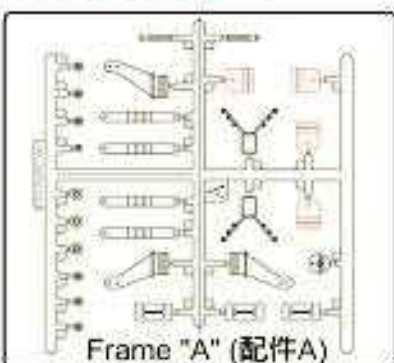
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- Cut a slit (10mm x 10mm) at 3 places for hinge installation on the main wing and aileron.
- Apply glue on all hinges and aileron wire then insert them to the wings securely.

- 在記號位置切約10X10mm切口如圖：(32)
- 將活頁以專用膠水局部上膠，分別插入副翼活頁切口如圖：(32)~(35)
- 塗抹膠水在副翼連動桿上，在將之裝配到機翼上。

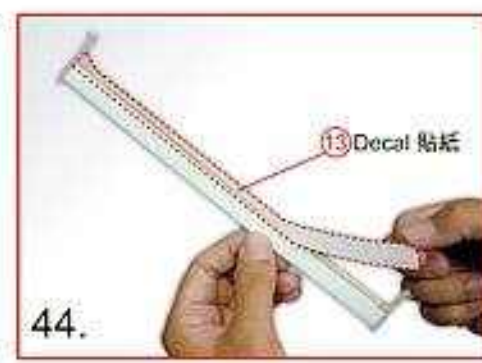
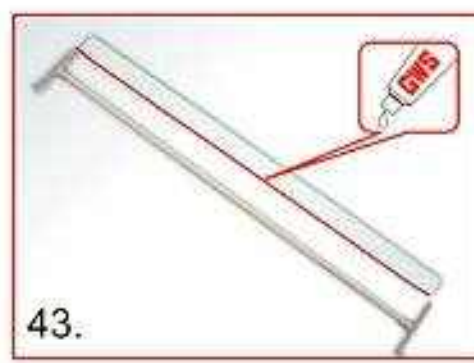
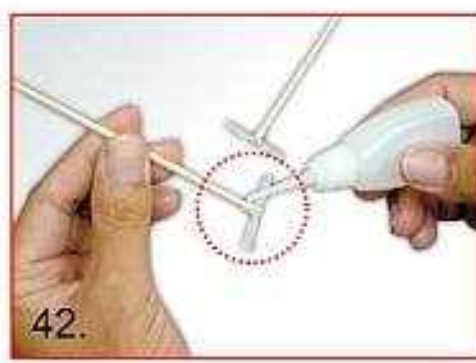
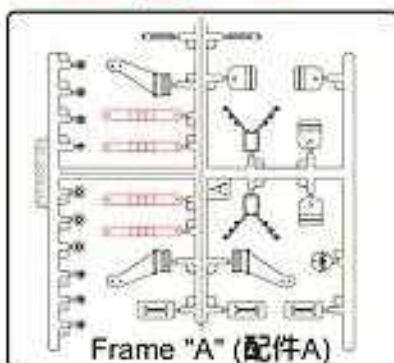
Step 5 步驟五



- Cut a 23.5 cm bamboo stick.
- Insert the strut fixing base A-7 to the polystyrene foam sheet and glue them to the designated positions located on both side of the fuselage as shown.

- 取出固定主翼斜支桿之所需另件如圖：(36)
- 將竹棒切成23.5cm如圖：(37)
- 將另件A-7套上固定片並塗上AB膠，貼於機身及主翼共四個地方如圖：(39)(40)(41)

Step 6 步驟六

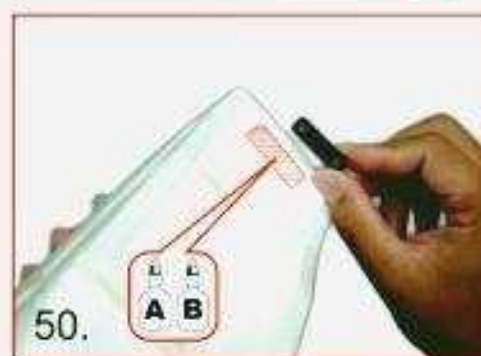
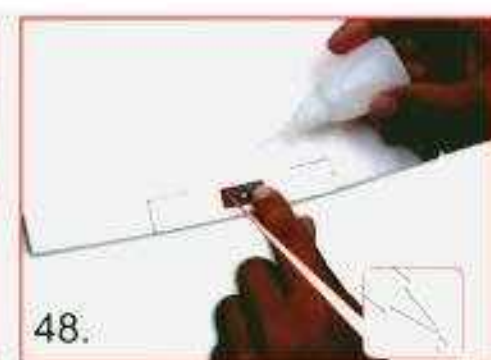
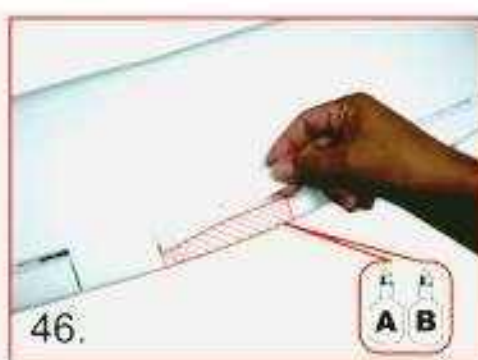
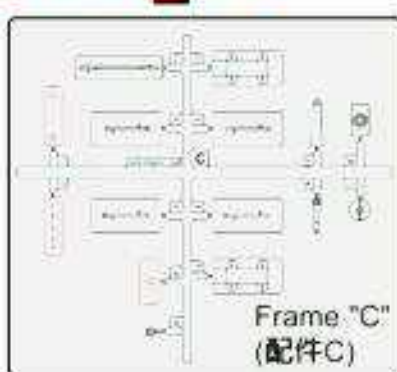


- 45.
- (1) Slide two bamboo sticks into plastic frame "A(6)".
- (2) Then glue the polystyrene foam to the bamboo sticks.

- 將A6套上竹棒點瞬間膠 如圖：(42)
- 斜支桿加強片塗上GWS膠水黏上竹棒並貼上13號貼紙如圖：(43)(44)



Step 7 步驟七

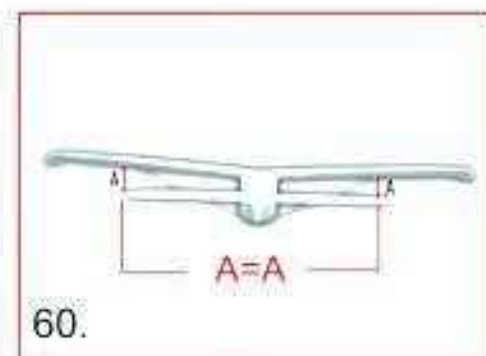


- Glue the plastic part C-1 on the center top of the wing with epoxy (Trailing edge).
- Glue the plastic part C-5 on the center top of the wing with GWS glue. (Trailing edge)
- Drill a 3mm hole on the plastic part C.
- Glue the plastic part C-1 with epoxy on the fuselage.
- Drill 3mm hole through the plastic part C-1 on the fuselage.
- Put the part C-2 in the indicated place.
- Apply epoxy glue to bond the part C-2.
- Trial fit the wing onto the fuselage and secure by 3x30 screw.
- Link the struts to the strut fixing bases on the L&R wings & fuselage.

- 於機身以AB膠黏上主翼加強片 (46)
- 取出主零件(C-5)並以瞬間膠黏上 (47)(48)
- 用手鑽鑽開主翼上的螺絲孔 (49)
- 在機身上以AB膠黏零件C-1 (50)
- 用手鑽鑽開機身上的卡榫孔 (51)
- 套上零件C-2 (52)
- 塗上AB膠 (53)
- 主翼往前推緊後於後端鎖上3X30螺絲如圖：(54)(55)
- 夾上步驟九完成之斜支撐 (56)

尾翼組裝 TAIL ASSEMBLY

Step 1 步驟一

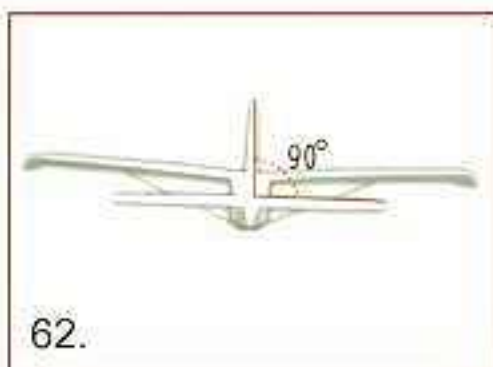
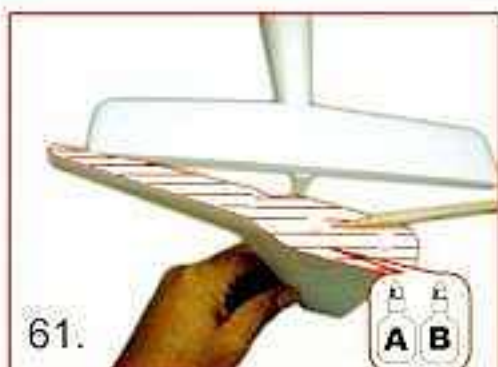


- Cut the elevators apart from the horizontal stabilizer with a knife as per the groove.
- Glue the horizontal stabilizer to the fuselage with epoxy glue.

- 將升降及方向舵面切開如圖：(57)(58)
- 於機身塗上AB膠並黏上水平安定面並注意須與主翼保持平行如圖：(59)(60)

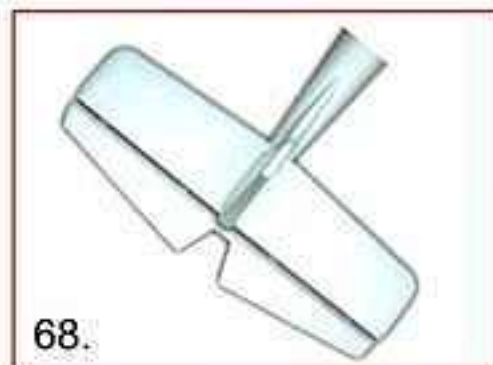
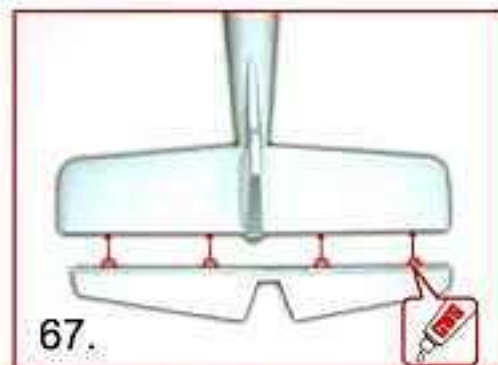
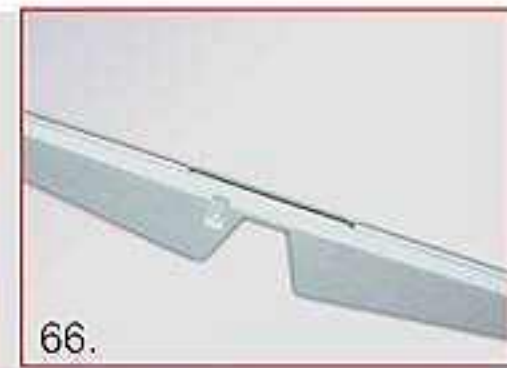
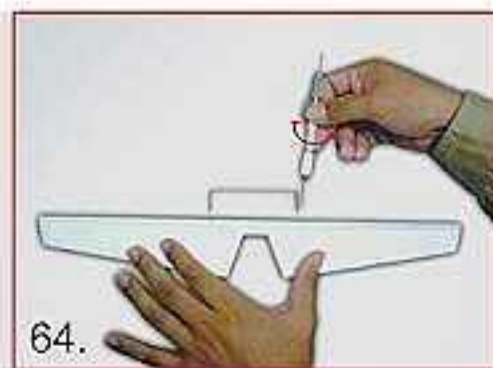
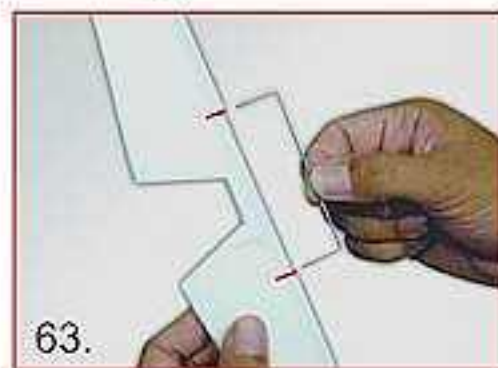
尾翼組裝 TAIL ASSEMBLY

E-STARTER
R/C ELECTRIC AIRCRAFT 電動飛機



- Glue the vertical fin to the horizontal stabilizer with epoxy glue.
- Ensure that the horizontal stabilizer is perpendicular to the fuselage and vertical fin.
- 於垂直安定面底部塗上AB膠並黏上水平安定面，注意須與水平安定面及主翼呈90°垂直如圖：(61)(62)

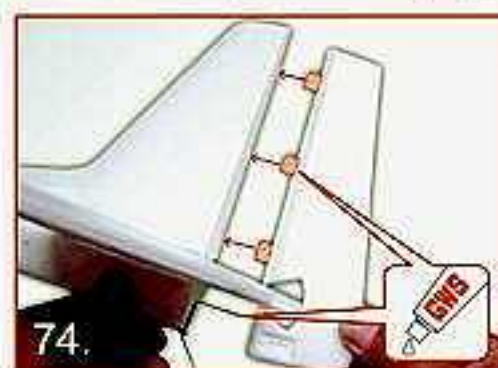
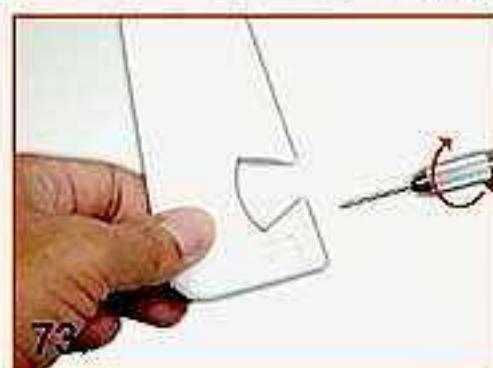
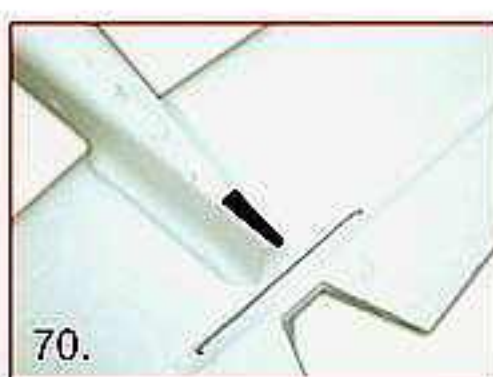
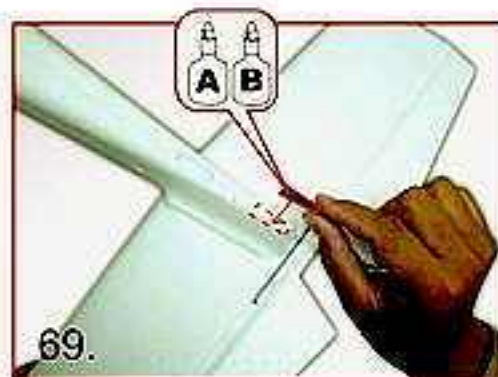
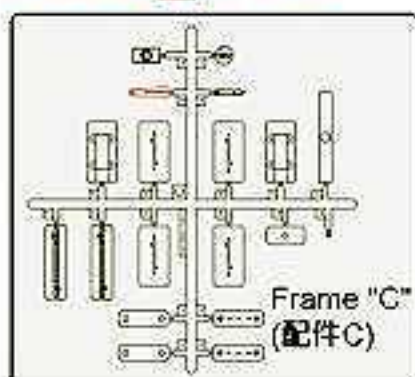
Step 2 步驟二



- Cut a slit (10mm x 10mm) at 3 places for hinge installation on the horizontal stabilizer and aileron.
- Cut a slit at 2 places for the elevator and insert the elevator linkage wire with GWS glue.
- Apply GWS glue on all hinges and elevator linkage wire insert them to the horizontal stabilizer and elevator.
- 於U型連桿位置劃上記號鑽1.5mm孔如圖：(63)(64)

- 以美工刀割出U型凹槽，再將U型連桿塗上GWS膠水放入如圖：(65)(66)
- 和組合副翼一樣，黏上升降舵如圖：(67)(68)

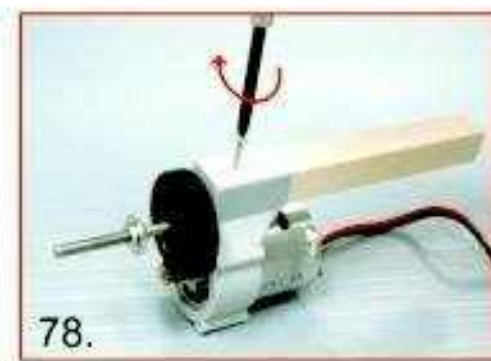
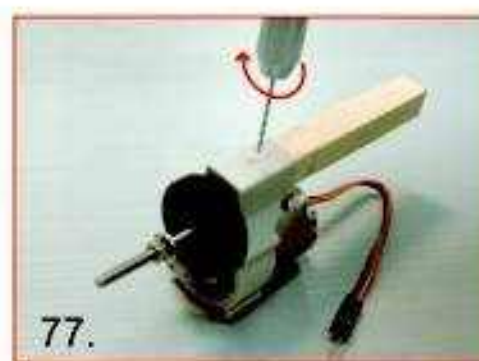
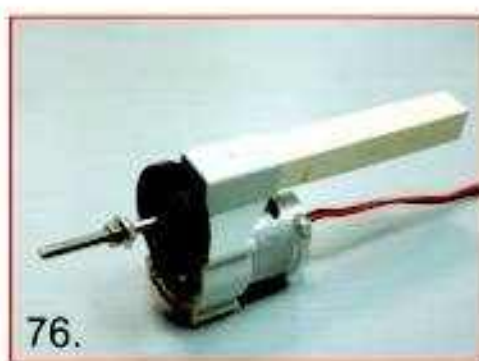
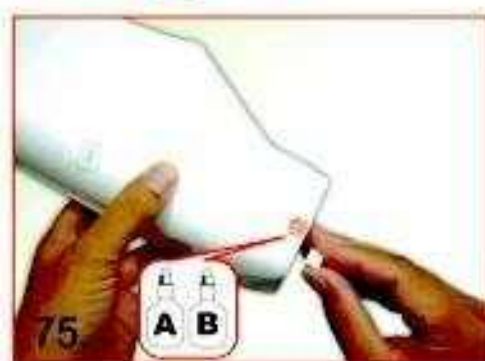
Step 3 步驟三



- Glue the frame "C-10" to the tail fuselage with epoxy glue.
- Install the tail gear to the tail fuselage and mark on the rudder.
- For the tail gear wire, cut a 1 mm x 1 mm x 20 mm slit and drill 1mm dia & 25mm deep hole on the rudder.
- Apply GWS glue on all hinges and insert elevator linkage wire to vertical fin and rudder.

- 取出零件C-10塗上AB膠黏上於機身尾端如圖：(69)(70)
- 裝上尾輪架後在方向舵上做記號如圖：(71)
- 以美工刀割出尾輪架導溝，再以手鑽鑽孔如圖：(72)(73)
- 取相對位置於垂直尾翼上切出兩條活頁縫，把方向舵粘到垂直尾上：(74)

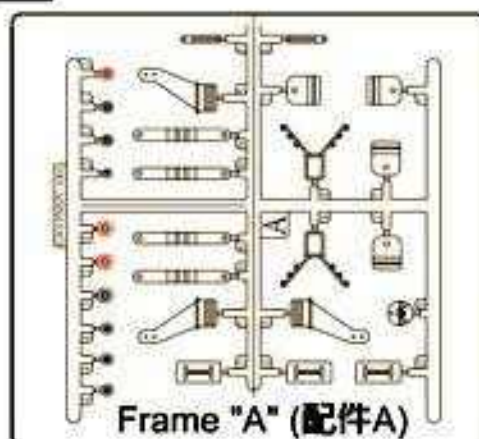
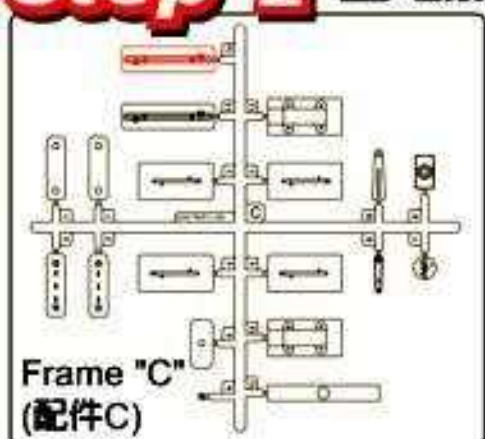
Step 1 步驟一



- Drill a 1mm hole by handdrill as picture shown.
- Put the power system in the fuselage upper chamfer, making sure it fits and is not too tight, then pull it out.
- Apply GWS glue to the cowling mount and bonding on the nose of the fuselage.
- Insert the EPS mount to the electric power system (EPS). Make sure that the mount is pushed into the EPS by 20mm, if it is too tight to insert the mount, trim the mount slightly with knife or sand paper.

- 於機身上以AB膠黏上整流罩固定座如圖：(75)
- 將動力系統套上木製動力座鑽1mm孔後鎖上螺絲如圖：(76)(77)(78)
- 將動力座塗上GWS膠水後置入固定孔如圖：(79)或(80)

Step 2 步驟二



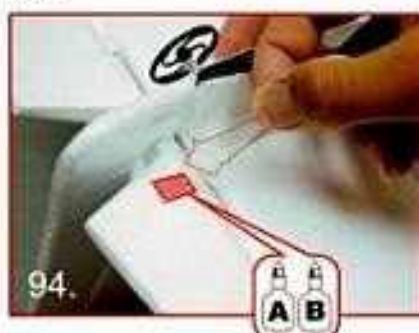
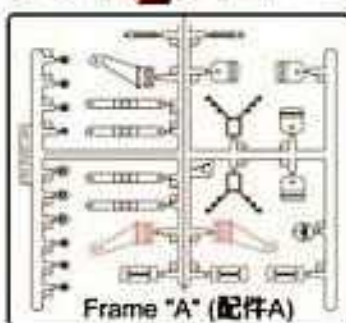
- Cut out the extra material of the cowling.
- Put the cowling in position and drill 1mm dia. holes, then fix the cowling with 4 screws.
- Apply epoxy glue to the frame "C-14" and secure the landing gear to the mount by screws.
- Cut out the excess material of the battery holder. Insert the battery holder with epoxy glue to the indicated place.
- Drill a ϕ 1.4mm hole through the retainer.
- Install the main wheel & tail wheel rims on the main landing gear & tail wheel.

- 剪下整流罩如圖：(81)(82)(83)
- 將整流罩前圓孔中心對準傳動軸中心點如圖：(84)
- 鎖上1孔如圖：(85)
- 鎖上螺絲如圖：(86)
- 取出零件C-14塗上AB膠如圖：(87)
- 裝上主輪架鎖上螺絲如圖：(88)
- 取出電池蓋剪下橫條塗上AB膠如圖：(89)(90)
- 置入凹槽如圖：(91)
- 裝上主輪及尾輪(主輪檔套為A-3)如圖：(92)
(尾輪檔套為A-1)如圖：(93)

遙控裝備組裝及調整

RADIO CONTROL SYSTEM

Step 1 步驟一



- Glue the horns frame "A-5" on the elevator & rudder with epoxy glue.
- Put the push - pull rod through the guided plastic tube , for rudder please use left side tube . For elevator use right side tube , fix the control horn to rudder and elevator push - pull rod.
- 用AB膠將A-5舵角器與升降舵與方向舵黏合如圖：(94) (95)
- 推拉桿穿過機身內推拉桿套，並裝入舵角器孔內如圖：(96)

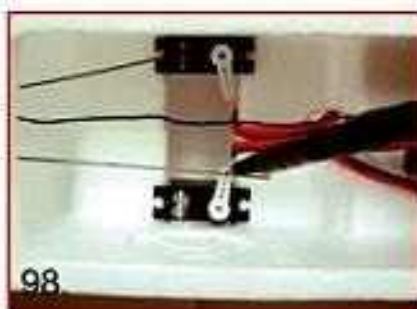


CAUTION

The horn has 2 holes if you use inner hole the moving angle are bigger then if you use outer hole

使用內孔舵面角度小
使用內孔舵面角度大

Step 2 步驟二



- Apply the double side foam tape to the servos and stick on the fuselage as picture. Use a marking pen mark out the connecting point on the push-pull rod.
Note: You will need to turn on the power while servos assembling to make sure neutral position and directions .
- Bend a "Z" connector on marked point of push-pull rod and cut the excess wire.
- 伺服機黏上雙面泡棉膠帶固定於機身如圖：(97)
- 於伺服機舵角器上在推拉桿上做上記號。如圖：(98)
(注意：須先將伺服機通上電源，並將確定正逆轉開關及微調中立)
- 以尖嘴鉗或Z字鉗將推拉桿夾成Z字型如圖：(99)



CAUTION

The horn has 3 holes if you use inner hole the moving angle are bigger then if you use outer hole

使用外孔舵面角度大
使用內孔舵面角度小

Step 3 步驟三



100.



101.



102.



103.



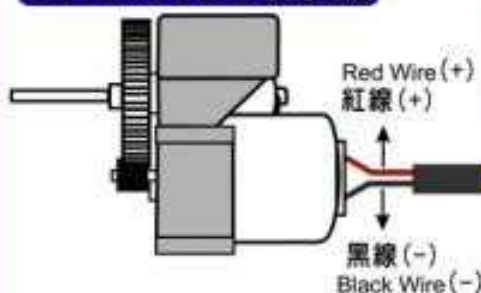
104.

- For bigger servos :
You may apply GWS glue to servos and insert the servo to servo slot. (Pic.101)
- PICO & NARO Servos :
1. Cut out the extra reinforcement to a suitable lamination as picture. (Pic.102)
2. Cut the excess swell of servo slot away as picture. (Pic.103)
3. Glue the servo & lamination to the main wing with GWS glue as picture. (Pic.104)
4. Connect the push-pull rod to the main wing. (Pic.105)

1. 較大型伺服機可直接塗上GWS膠水置入凹槽。如圖：100

2. PICO, NARO型伺服機：

- ① 將支架加強片剩餘部分切下薄片如圖：101
- ② 切下伺服機凹槽加高部分如圖：102
- ③ 於伺服機及薄片上塗上GWS膠水如圖：103
固定於主翼上，並結合推拉桿如圖：104

EPS-100C 系統
EPS-300C SYSTEM

注意 CAUTION:

Please read the instruction careful before installation. Please follow the scheme showing wiring diagram to connect the wire and be sure the servo are in neutral position. When you are testing the servo, please do not connect the motor wire and be sure to turn on the transmitter first.

1. 安裝前請先詳閱各元件使用說明。
2. 安裝前請依以上配置線路將伺服機中正點歸正。
3. 安裝伺服機測試前請先不要接動力組之電源，並請先開啓。
4. 發射機電源再接通接收機電源。

Electronic Speed Controller
電子變速器 ICS-100

GWS Ni-cd Battery

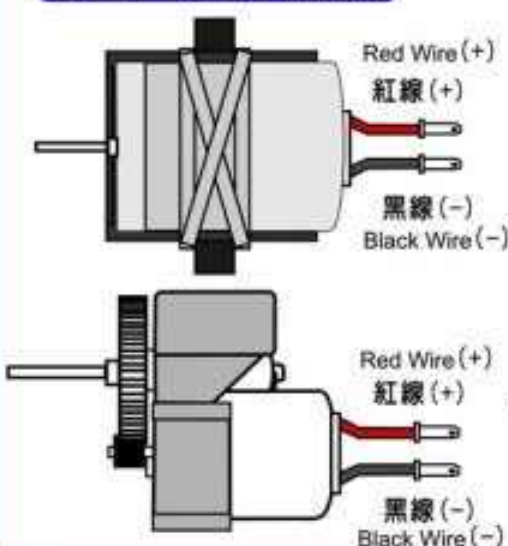
Receiver GW/R-4M
接收機
GW/R-6M
GW/R-8M

延長線 Extension Wire

6N7.2V350mAh~600mAh(Ni-Cd) (鎳鎘)
7N8.4V~500mAh~730mAh(Ni-MH) (鎳氫)
AILERON 副翼 (PICO/NARO/MINI系列)

ELEVATOR 升降舵 (PICO/NARO系列)

RUDDER 方向舵 (PICO/NARO系列)

EPS-400C 系統
EDP-400C SYSTEM

電子變速器
Electronic Speed Controller
ICS-400

6N7.2V600mAh(Ni-Cd) (鎳鎘)
7N8.4V730mAh(Ni-MH) (鎳氫)

GWS Ni-cd Battery

Receiver GW/R-4M
接收機
GW/R-6M
GW/R-8M

延長線 Extension Wire

AILERON 副翼 (PICO/NARO/MINI系列)

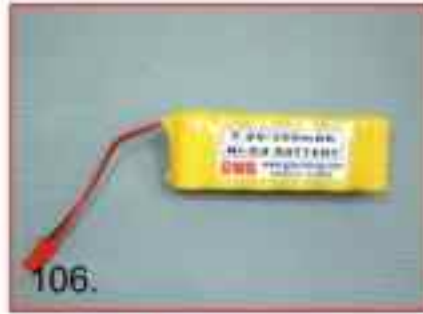
ELEVATOR 升降舵 (PICO/NARO系列)

RUDDER 方向舵 (PICO/NARO系列)

Note: We highly recommend GWS 8.4 V 730 mAh Ni-MH batteries over and above when you use servos the weight over NARO's.

控制系統的測試 BEFORE FLYING

E-STARTER
R/C ELECTRIC AIRCRAFT 電動飛機



Please Note:

Below photos show stick position using a Mode 1 transmitter. Mode 2 transmitters used in the U.S. market will have throttle control on the left and aileron/elevator control on the right.

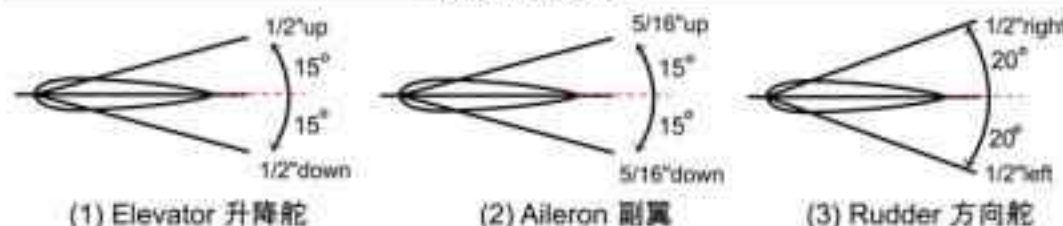
- Turn on your transmitter.
- Place the battery in to the battery compartment of fuselage.

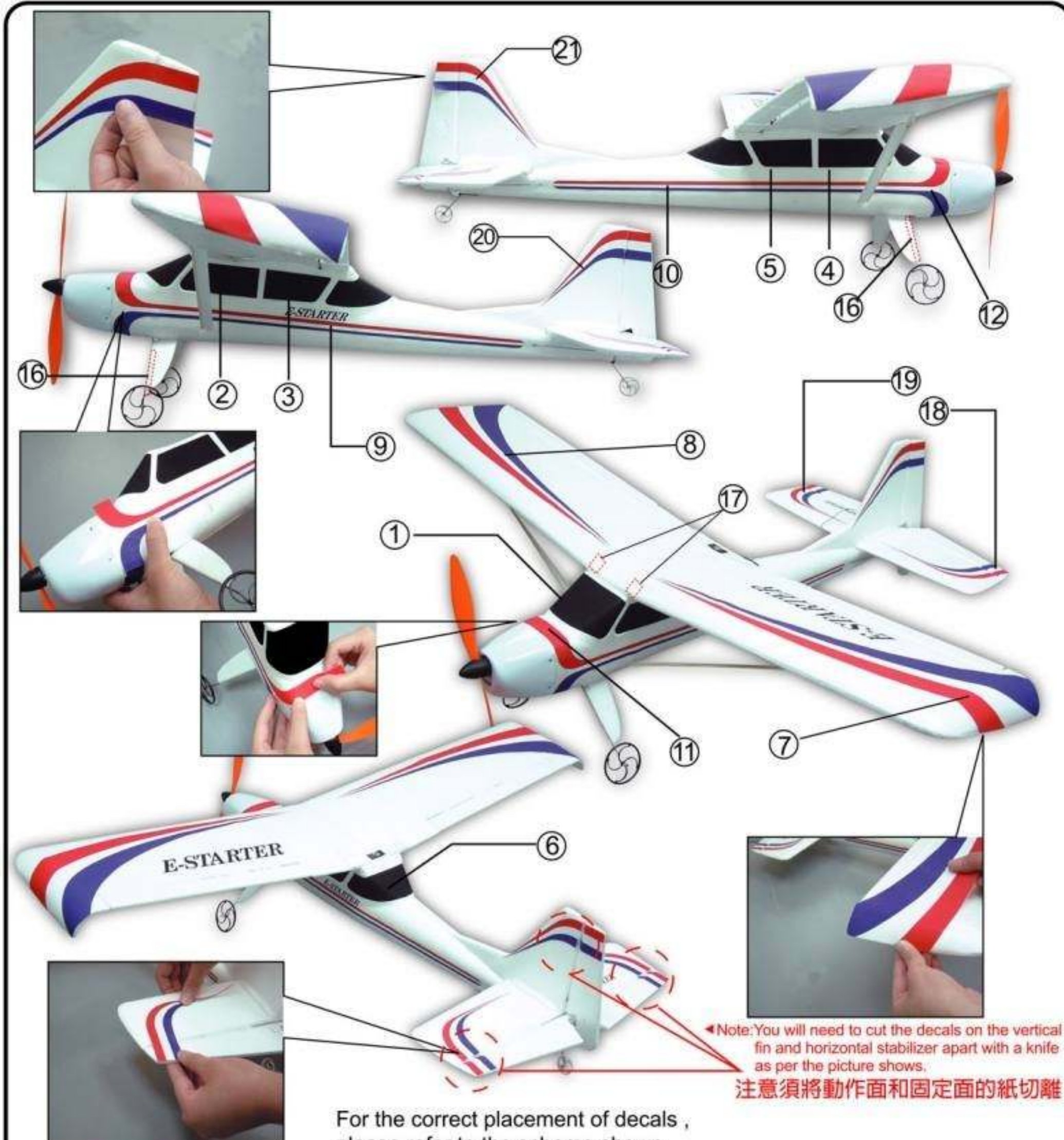
- 先打開發射機之電源
- 置入電池
- 接上電源線，同時將電池放至電池座裡。
- 副翼測試副翼操縱桿打左，左副翼會向上動作，右副翼則向下。
- 試著將油門操縱桿漸往上推看馬達運轉是否同步逐漸加大。
- 油門測試試著把油門收到最底油門微調位置收到最底看馬達是否完全靜止。
- 方向舵測試方向舵操縱桿打左，方向舵會往左動作。
- 副翼操縱桿回到正位時，副翼應回至中立點。
- 副翼操縱桿打右，左副翼會向下動作，右副翼則向上。
- 方向舵操縱桿打右，方向舵會往右動作。
- 升降舵操縱桿往下打，方向舵會向上動作。
- 升降舵操縱桿往上推，升降舵會向下動作。
- 升降舵操縱桿回到正位時，升降舵應回至中立點。

- Connect power wires and turn on the receiver.
- Pull down the throttle to the lowest position and also the micro adjustment to the minimum. The motor should in neutral position and no operation.
- Push up the throttle stick slowly and watch the reaction of the motor. The motor should run from low to full throttle as you adjust the stick upward.
- Stick move to left, the left side aileron on the airplane will move up, and right side aileron move down. Stick location on the transmitter varies by mode.
- Aileron stick move to right. The right side aileron on the airplane will move up, and left aileron move down.
- Stick in neutral position. All aileron on the airplane should return to neutral. If the movement of aileron are working in opposite direction, please switching the aileron reverse switch on the transmitter.
- Moving the stick to the left should move the rudder to the left.
- Moving the stick to the right should move the rudder to the right.
- Moving the stick down should move the elevator up.
- Moving the stick up should move the elevator down.
- When the stick is in neutral, the elevator should return to neutral.

(MOVEMENT OF ALL MOVING SURFACE)

各舵面行程大小





For the correct placement of decals ,
please refer to the scheme shown.

請參考圖片依位置貼上貼紙



PAINTING:

機身塗裝注意事項:

- Choose emulsion paint suitable for polystyrene.
- Before Paint ,wipe all surface with medical alcohol and remove oil, dust, dirt etc.
- For best results, hold the spray can about 20cm away from the surface. Do not over painting for the sake of each additional layer will increase the weight of the airplane.Please remember the lighter the better for the airplane.
- 請採用水性噴漆，以免造成保利龍損壞。

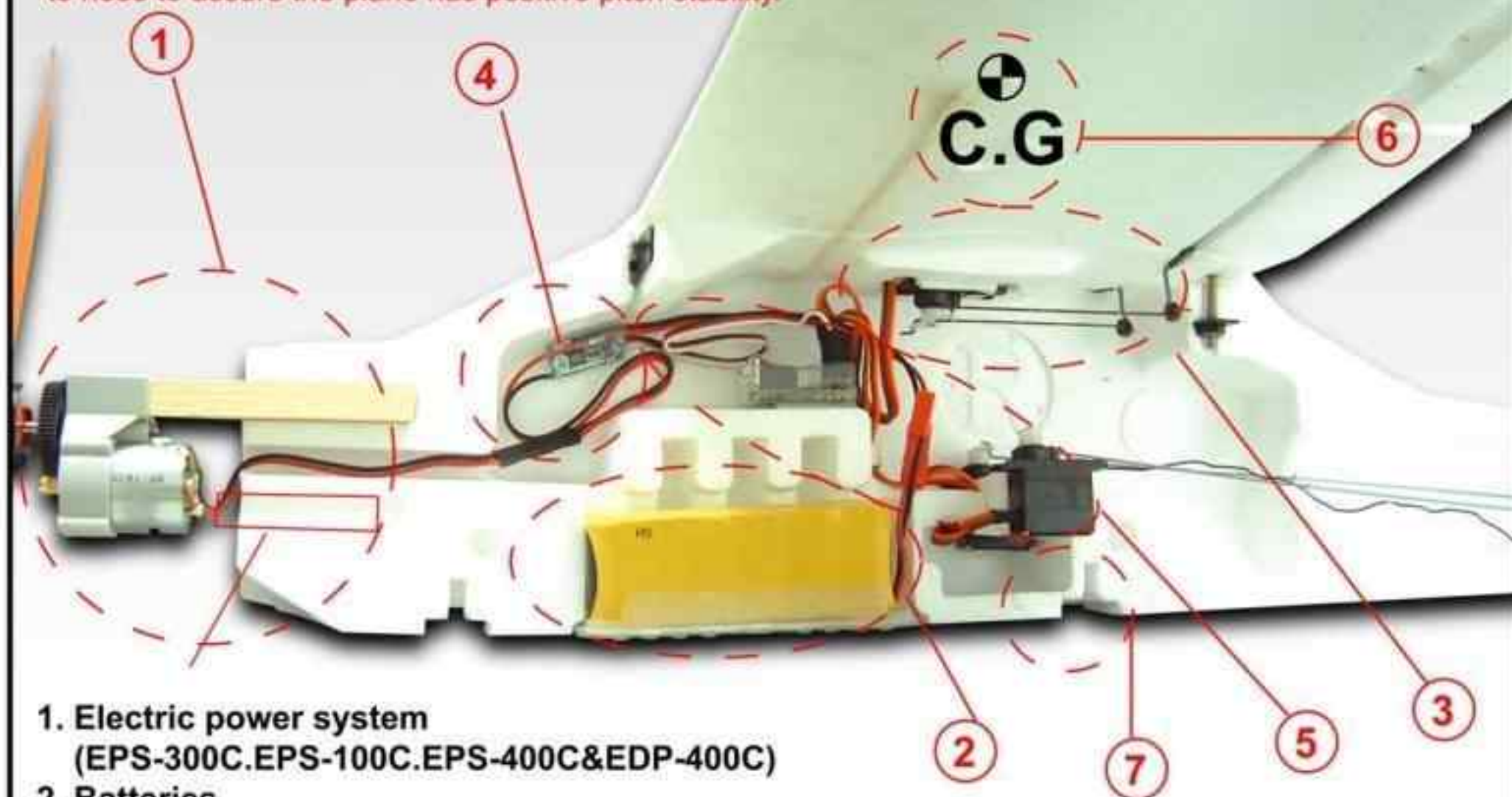


飛行前的注意事項 PREFLIGHT CHECKING LIST

E-STARTER

R/C ELECTRIC AIRCRAFT 電動飛機

The C.G. is very critical and it is important that you check and confirm the location for yourself before flying. Battery and other changes such as motors affect this position and may require the need for stick on lead weight to be added to the nose or the rear of the fuselage depending on whether the airplane is nose or tail heavy. Using the EPS300C motor may require approximately 3/4 oz of lead weight added to nose to assure the plane has positive pitch stability.



1. Electric power system
(EPS-300C.EPS-100C.EPS-400C&EDP-400C)
2. Batteries
3. Extention wire & aileron servo
4. Speed controller
5. Receiver, rudder servo and elevator servo
6. The Center of Gravity (C.G.)
7. Float stick preparatory portion

EDP-400C位置

- 1(EPS-300C.EPS-100C. EPS-400C)位置
- 2.電池位置
- 3.副翼伺服機位置
- 4.電子變速器位置
- 5.升降舵及方向舵伺服機位置
接收機位置
- 6.重心位置
- 7.浮筒架預留位置

EPS POWER SYSTEM SPECIFICATONS 動力系統規格數據

Note: When you use 7.2 V ~ 8.4 V battery please use GWS EP1080 propeller and please use EP9070 for 9.6 V battery.

GW/EPS-100C-AS							
螺旋槳 Propeller	電壓(伏特) Volts(v)	電流(安培) Ampere(A)	推力 Thrust		功率(瓦) Power	效率 Efficiency	
			公克 (g)	盎司(oz)		克/瓦 (g/w)	盎司/瓦 (oz/w)
EP-1080	7.2	2.7	164	5.79	19.44	8.44	0.30
	8.4	3.4	200	7.06	28.56	7.00	0.25

GW/EPS-300C-CS							
螺旋槳 Propeller	電壓(伏特) Volts(v)	電流(安培) Ampere(A)	推力 Thrust		功率(瓦) Power	效率 Efficiency	
			公克 (g)	盎司(oz)		克/瓦 (g/w)	盎司/瓦 (oz/w)
EP-1080	7.2	7.8	288	10.16	56.16	5.13	0.18
	8.4	9.7	332	11.1	81.48	4.07	0.14

GW/EPS-400C-CS							
螺旋槳 Propeller	電壓(伏特) Volts(v)	電流(安培) Ampere(A)	推力 Thrust		功率(瓦) Power	效率 Efficiency	
			公克 (g)	盎司(oz)		克/瓦 (g/w)	盎司/瓦 (oz/w)
EP-7035	7.2	11.30	340	11.99	81.36	4.18	0.15
	8.4	13.30	410	14.46	111.72	3.67	0.13

飛行前的注意事項 PREFLIGHT CHECKING LIST

CAUTION 飛行前注意事項:

1. It is best for you to fly your plane in a large open place.
2. Do not fly around some restricted location like airports, military bases, etc.
3. You will need to range check the transmitter to be sure you are not experiencing any interference. (If you are flying with other RC modeler at a field, do not turn on your transmitter until you are certain that no one else is using your channel.)
4. Always turn on the receiver last after turning on the transmitter and shut off the receiver first before turning off the transmitter.
5. If you are only a beginner to the radio control model flying, do not attempt to fly your model without any assistance or advice from advanced expert fliers.
6. Please refer to the instruction guide carefully and thoroughly before assembling equipment kits. Different power units and servos combination will lead to its various flight performance. Remember the lighter the better.
7. Watch the wind direction.

1. 飛行場所應以空曠無障為佳，避免於400公尺內有高壓電塔電線或建築物的範圍內飛行。
2. 避免在禁止場所飛行，如飛航管制區、軍事地點等場所。
3. 飛行前請先詢問並告知有無同頻率，避免相互干擾情況發生。
4. 飛行前請先開啓發射機，再接通飛機電源，以避免產生假性干擾現象。
5. 如無經驗者，建議先請教有經驗者，代為測試飛行。
6. 請依說明書搭配電池及螺旋槳，不當的改裝或搭配，將會影響飛機性能及電子設備、動力組使用壽命。
7. 注意起降時的風向。

Wind Direction 風向

TAKE OFF 起飛

1. Apply full throttle to speed up the airplane against the wind.
2. Keep the tracking straight using the tail steering during the take-off process.
3. Apply just a touch of up-elevator when the model reaches sufficient takeoff speed and the model lifts smoothly into the air.
4. Make the turn when the model is at a high altitude. Then the trim all control surfaces to achieve the level flight.

1. 由起跑點逆風加速讓飛機尾輪揚起助跑。
2. 助跑時以方向舵修正行進方向保持直線。
3. 待速度足夠時輕帶升舵讓飛機自然離地。
4. 爬昇至安全高度後再進行轉彎並保持爬昇。
5. 至較高空域後檢查各舵面進行微調。



Wind Direction 風向

LANDING 降落

1. Gradually reduce the throttle during the final pattern for speed down the airplane.
2. Slightly touch up-elevator to maintain a smooth ratio of the descent process. Do not apply too much up-elevator otherwise the plane may go into a stall.
3. Make a final turn against the wind and heading to the runway.
4. When the altitude approximately 30cm from the ground, pull a little more up-elevator and let the airplane nose-up and touch-down.

1. 逆風方向進場保持安全高度。
2. 視狀況漸收減油門讓飛機自然飄降(油門不宜全收至少帶約1/3油門)。
3. 當飛機飄降至離地約30公分左右再漸全收油門視狀況輕帶昇舵，讓主輪輕觸跑道後，直至減速後尾輪觸地為止。

