

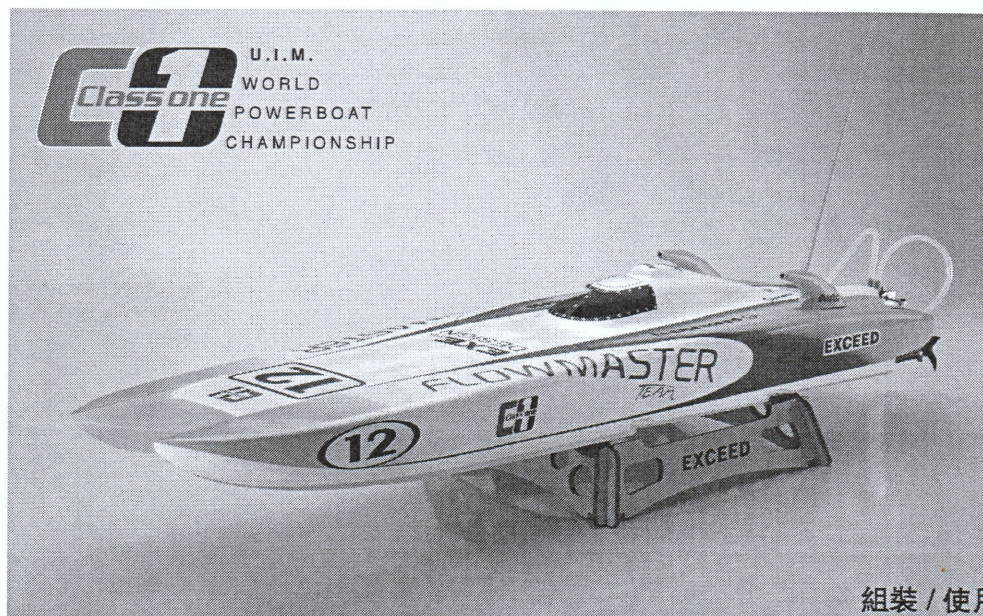
在動手組裝模型之前，請先詳細閱讀這本組裝使用說明書！
Before beginning assembly, please read these instructions thoroughly!

LENGTH: 720mm (28.3')
BEAM: 173mm (6.8')
BATTERY REQUIRE:
11.1V 2200-4500mAh



WARNING!
警告

Don't use battery over 11.1v unless upgrade ESC!
請勿使用高于11.1v的電池，除非將ESC升級！



組裝 / 使用說明書

INSTRUCTION MANUAL

FLOWMASTER RACING BOAT

INDEX 目錄

● 安裝要求配備 REQUIRED FOR OPERATION	2
● 組裝前注意 BEFORE YOU BEGIN	2-3
● 無線電遙控準備 RADIO PREPARATION	3
● 設備的裝配 ASSEMBLY	4-8
● 安全事項 OPERATING YOUR MODEL SAFELY	9
● 正確運行與故障處理 HOW TO HANDLE AND TROUBLESHOOTING	10-11



安全忠告及注意事項

這是無線電遙控模型并不是玩具！

- 如果你是一名新手或者是第一次接觸遙控模型，請在組裝、操控模型前尋求富有經驗的模型愛好者、模型店的幫助，以令商品的性能可完美發揮。
- 請勿在小孩可以觸及到的地方組裝、操控模型。
- 在操控這架模型之前請先確定好一個安全的場所，以及安全方面的準備工作，因為在模型的安全上你負有完全的責任。
- 請妥善保管好你的組裝說明手冊。

R B R C



Ni-Cd



Ni-Cd

- 請按當地法規妥善處理好手頭上失效的可充、放電電池，請勿隨意棄置，因其可能含有對環境造成惡劣影響的成份。
- The product you have purchased is powered by a rechargeable battery. The battery is recyclable. At the end of its useful life, under various national / state and local laws, it may be illegal to dispose of this battery into the municipal waste stream. Check with your local solid waste officials for details in your area for recycling options or proper disposal.



SAFETY PRECAUTIONS

This radio control model is not a toy.

- First-time builders should seek the advice of experienced modellers before commencing assembly and if they do not fully understand any part of the construction.
- Assemble this kit only in places out of children's reach!
- Take enough safety precautions prior to operating this model. You are responsible for this model's assembly and safe operation!
- Always keep this instruction manual ready at hand for quick reference, even after completing the assembly.

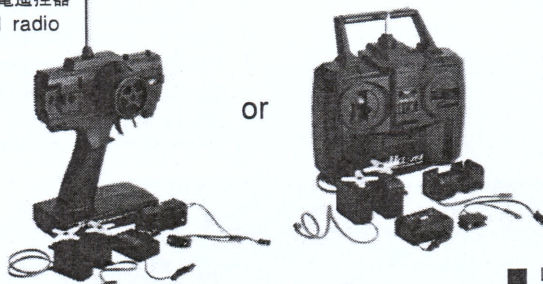
安裝要求配備 REQUIRED FOR OPERATION

2頻道R/C模型無線電遙控器，附帶2伺服機及電池盒。
2 channel & 2 servo radio for R/C models, and battery box.

● 以FUTABA遙控器為例。

Explanations on the radio are based on the FUTABA radio.

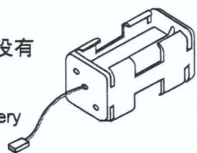
■ 2頻道無線電遙控器
2 channel radio



OR

■ 電池盒
Battery Box

● 如果遙控器已附帶電池盒，就沒有必要另外購買。
If already supplied with the radio, there is no need to purchase a battery box separately.

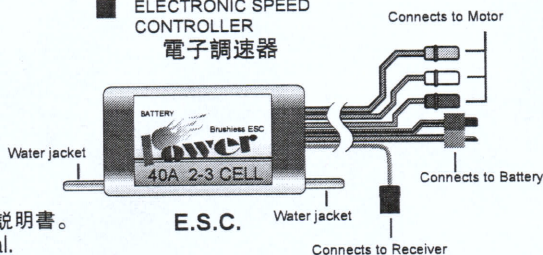


■ AA-尺寸電池8個 (發射機用)
AA-size Batteries
(For Transmitter) ... 8 Pcs.



*遙控器的使用方法請參閱遙控器附屬的使用說明書。
For proper radio handling, refer to its manual.

■ ELECTRONIC SPEED CONTROLLER
電子調速器

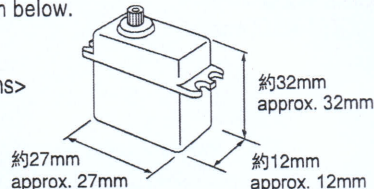


標準的無線接收裝置
with any other radio:

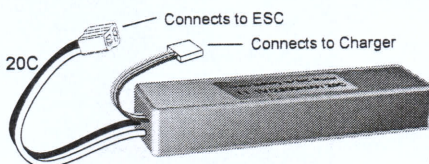
● 請你按以下圖表的尺寸，檢查你的伺服器的體積是否符合安裝要求。

If you are using your own radio, ensure its servos correspond in size to the servos in the diagram below.

<適合的伺服器尺寸>
< Suitable servo dimensions >



■ Li-poly Rechargeable Battery
11.1V2200-4400mAh ≥ 20C



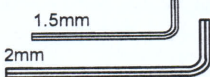
2-3CELL BALANCE CHARGER



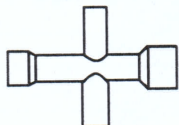
■ 直流充電器
DC CHARGER

組裝時必須用到的工具 TOOLS REQUIRED

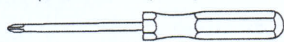
■ 內六角扳手
Hex wrench



■ 十字型扳手
Cross Wrench



■ 十字螺絲起子 (大、中、小)
Phillips Screwdriver (L.M.S)



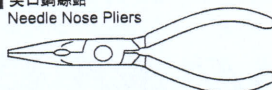
■ 模型刻刀
Sharp Hobby Knife



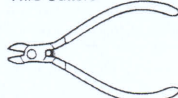
■ 鉗子
AWI



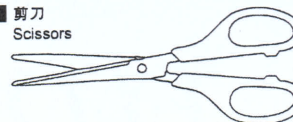
■ 尖口鋼絲鉗
Needle Nose Pliers



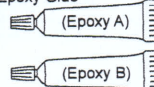
■ 剪鉗
Wire Cutters



■ 剪刀
Scissors



■ 環氧樹脂膠
Epoxy Glue



■ 瞬間粘劑
Instant Glue



組裝前的注意事項 (1) BEFORE YOU BEGIN

1 在你開始組裝之前，請詳細閱讀這本說明手冊，這樣你將會有一個該做什麼的概念。

Read through the manual before you begin, so you will have an overall idea of what to do.

2 檢查包裝盒內所有的零部件，如果發現有任何的瑕疵或故障，你可以聯絡當地的經銷商或直接與我們聯繫。

Check all parts. If you find any defective or missing parts, contact your local dealer or our Dragon Hobby Distributor.

3 這本說明書所用到的符號：

Symbols used throughout the instruction manual, comprise:



將灰色部分剪切。
Cut of shaded portion



左右兩邊的裝配方法相同。
Assemble left and right sides the same way.



使用瞬間黏接劑黏接。
Apply instant glue (CA glue, super glue).



鑽孔 (這裏是：2mm)。
Drill holes with the specified diameter (here: 2mm).



組裝時請注意這裏。
Pay close attention here!



另外購買
Must be purchased separately!



按指定的次數裝配 (這裏兩次)。
Assemble as many times as specified (here: twice).



組裝後可順暢運動。
Ensure smooth non-binding movement while assembling.



剪切多餘的部分。
Cut off excess.



使用環氧樹脂膠合。
Apply epoxy glue.



試驗性的收緊螺絲。
Tentatively tighten.



按編號順序組裝。
Assemble in the specified order.



塗抹滑脂。
Apply grease.



禁止事項。
Do not do that!

警告
不要忽視這個符號
Do not overlook this symbol!



組裝前注意 BEFORE YOU BEGIN (2)

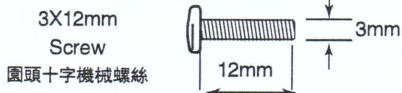
4 此套件包含許多不同種類的螺絲，下圖出示各種螺絲的尺寸大小供你參考。

This kit contains many screws in and other hardware different metric sizes and shapes. For your reference, the figures in the manual show actual sizes. (some screws are extras.)

● Types of screws: 螺絲釘的種類:



● How size of screw is given: 螺絲的尺寸:

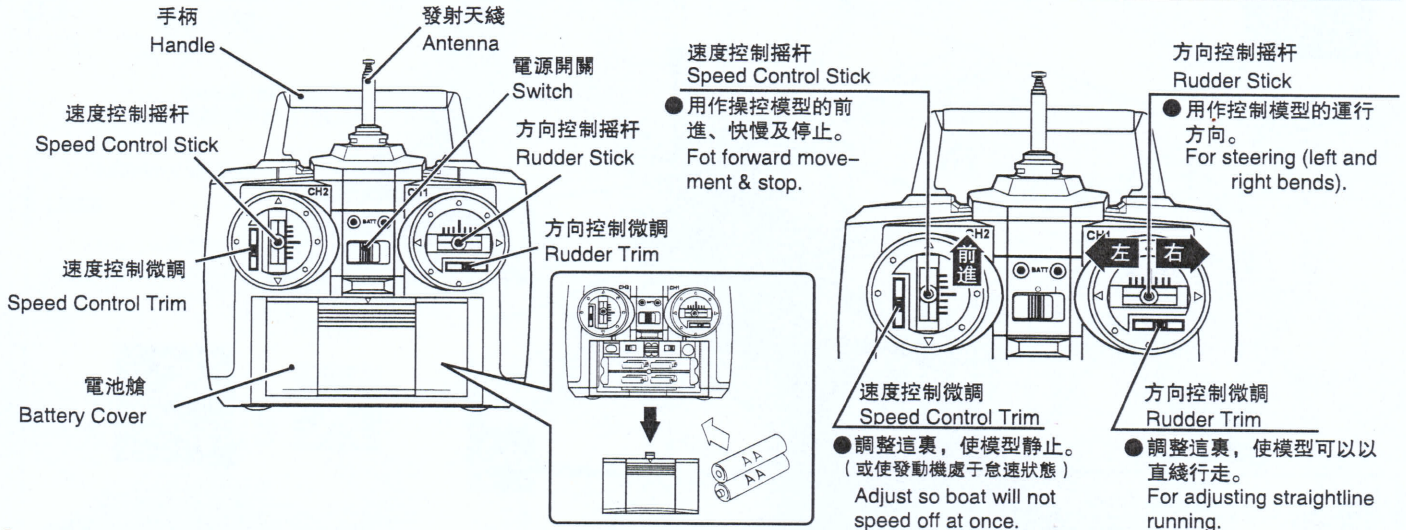


5 自攻螺絲是靠外力攻出螺紋進入部件，過度的力量將導致部件永久損壞。建議當部件恰好接觸或當自攻螺絲完全進入部件後，感覺有阻力時，應立即停止。

Self-tapping (TP) screws cut threads into the parts when being tightened. Excessive force may permanently damage parts when tightening TP screws. It is recommended to stop tightening when the part is securely attached or when some resistance is felt after the threaded portion enters the plastic.



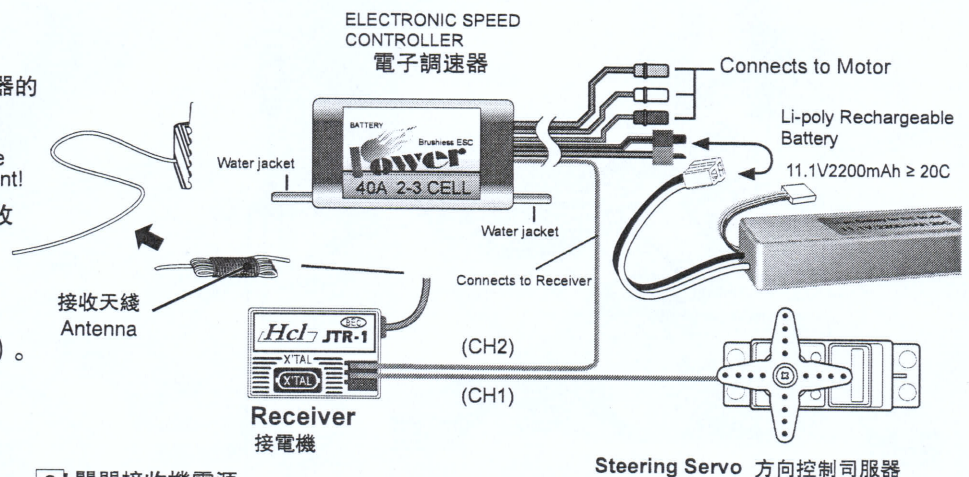
無線電遙控器的準備 RADIO PREPARATION



● 按下面的向導設置你的遙控器系統。
Set up a radio control system as indicated below.

- 1 將各部件接頭連接好。
Plug in connectors.
- 2 安裝AA-尺寸電池。
Install the AA-size batteries.
- 3 拉出遙控器發射機天線，否則，遙控器的接收範圍將不能達到理想狀態。
Extend the transmitter antenna. If not, the range of the transmitter will not be sufficient!
- 4 展開接收機天線，否則，遙控器的接收範圍將不能達到理想狀態。
Undo the receiver antenna. If not, the range of the receiver will not be sufficient!
- 5 將各微調的位置調整到中位(發射器)。
Center all trims. (Transmitter)
- 6 打開遙控發射器的電源開關。
Switch on. (Transmitter)
- 7 打開接收機的電源開關。
Switch on. (Receiver)
- 8 檢查遙控器與伺服器的動作是否一致。
Check that the servos move according to your inputs. (Transmitter)




Connections when a E.S.C. DHP- P40A are used.

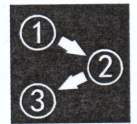
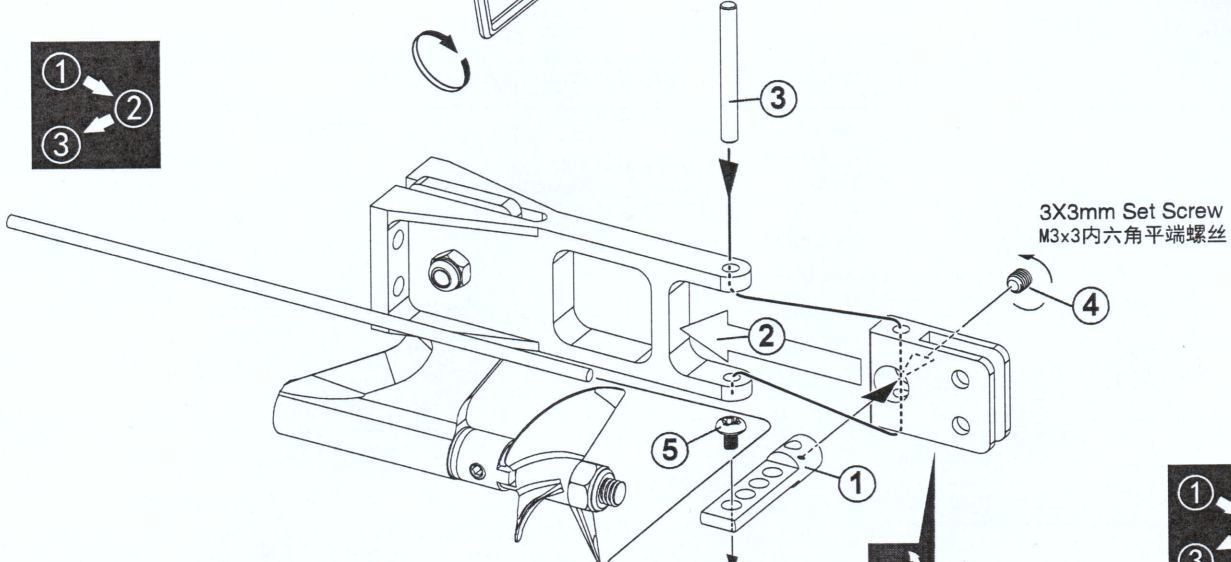
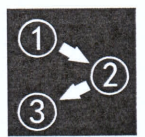
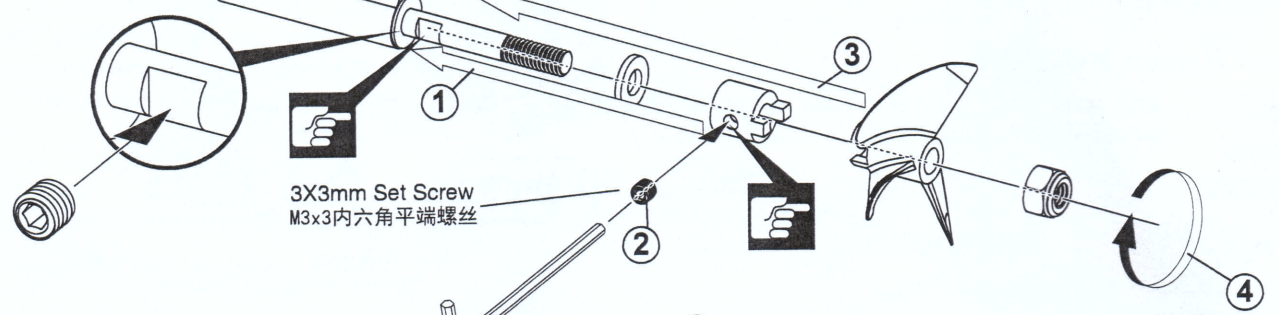



- 9 關閉接收機電源。
Switch off. (Receiver)
- 10 關閉發射器電源。
Switch off. (Transmitter)
- 11 收回發射器天線。
Retract the antenna. (Transmitter)

在遙控器的使用上，除了以上所說到的，你還應該詳細閱讀遙控器所附帶的產品使用手冊。
In addition to this page, read the instruction manual supplied with your radio as well.

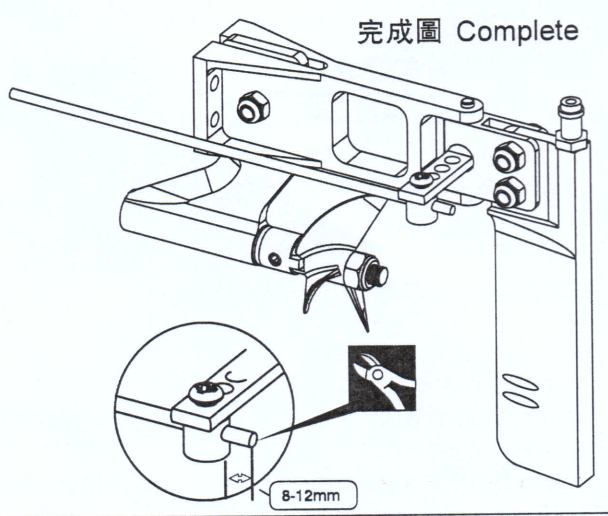
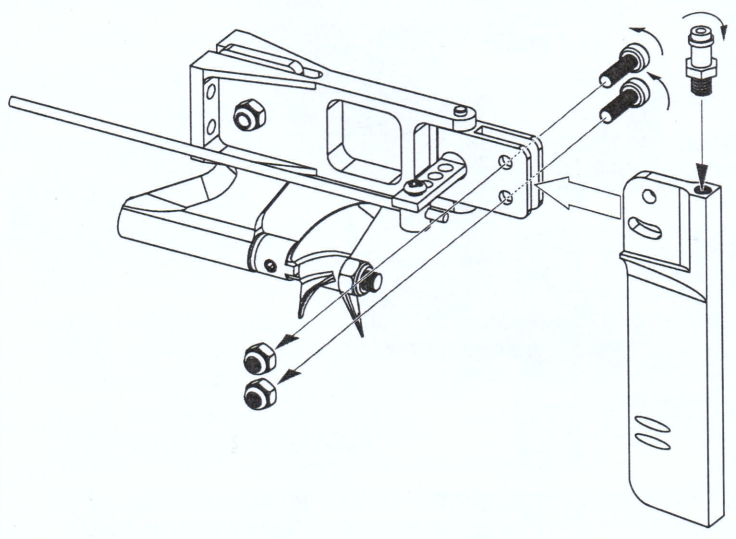
01 **RUDDER 尾舵**
DRIVE SHAFT 推進器





	Shaft	1
軸		
	3X3mm Set Screw	3
M3x3內六角平端螺絲		
	Nylon Nut	1
5mm 螺母		



	3X16mm Cap Screw	1
M3x16內六角圓柱頭螺絲		
	Nylon Nut	1
M3尼龍防鬆螺母		

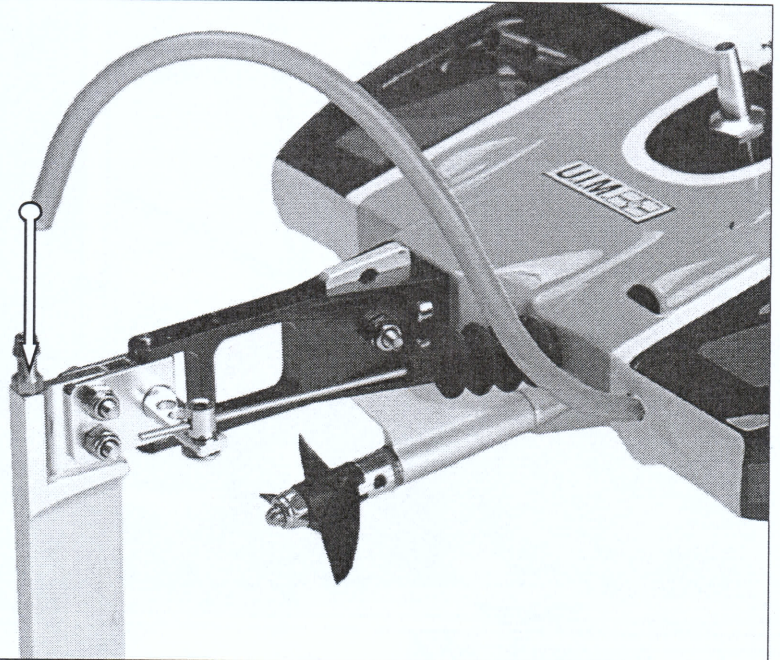
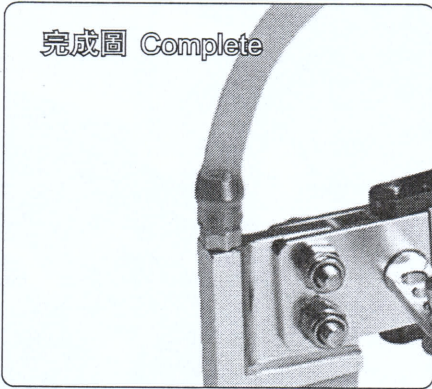
3X3mm Set Screw
M3x3內六角平端螺絲



-  按編號順序組裝。
Assemble in the specified order.
-  組裝後可順暢運動。
Ensure smooth non-binding movement while assembling.
-  剪切多餘的部分。
Cut off excess.
-  組裝時請注意這裏。
Pay close attention here!

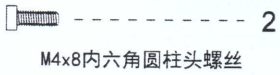
02 RUDDER

完成圖 Complete

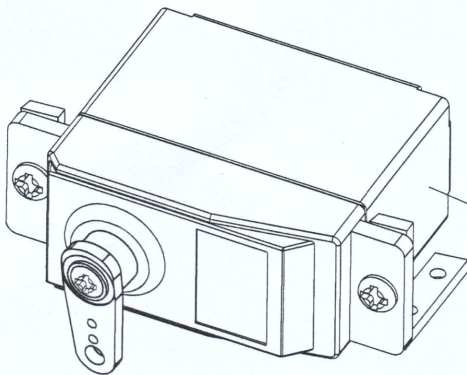
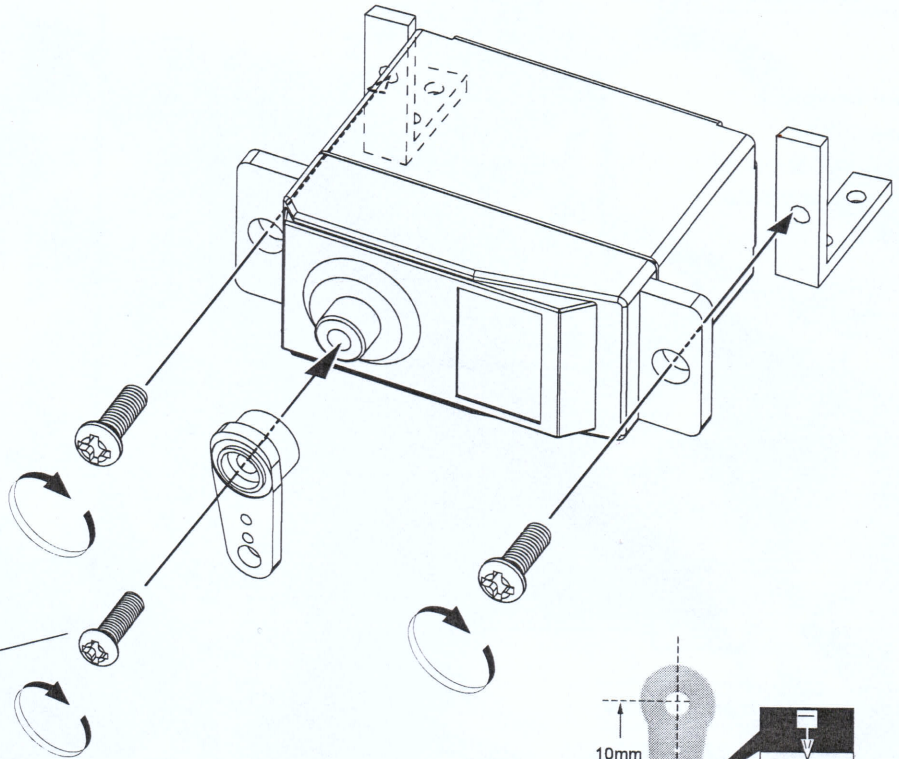


03 Radio Box
接收機艙

4X8mm Cap Screw



Rudder Servo
方向控制伺服器



Rudder Servo
方向控制伺服器
完成圖 Complete

10mm

2mm

Use this hole
使用這個孔

3mm

3mm

X 另外購買
Must be purchased separately!

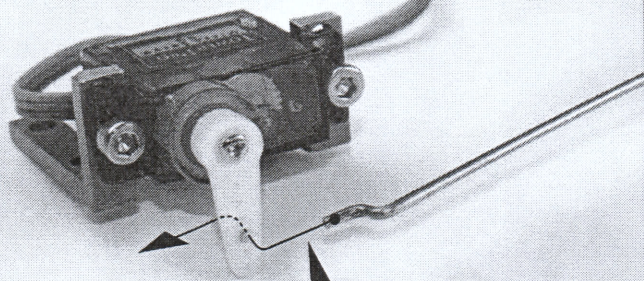
2mm 鑽孔 (這裏是: 2mm)。
Drill holes with the specified diameter
(here: 2mm).



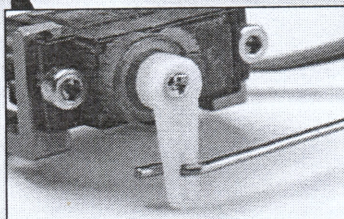
將灰色部分剪切。
Cut of shaded portion

04

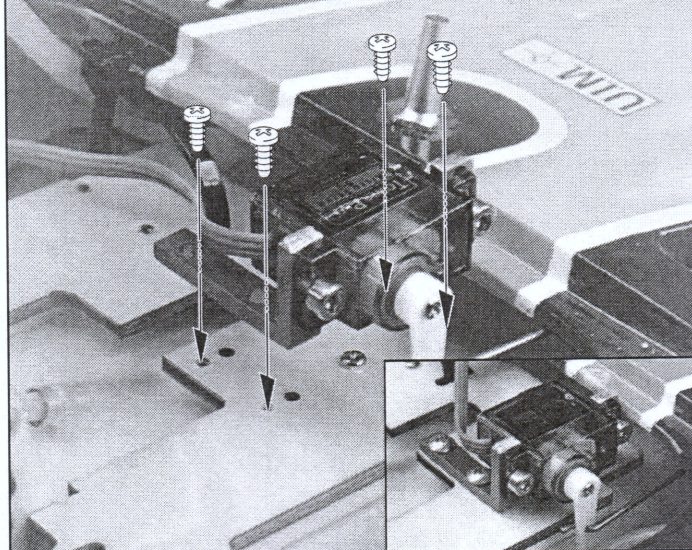
Radio Box
接收機艙



Rudder Servo
方向控制伺服器



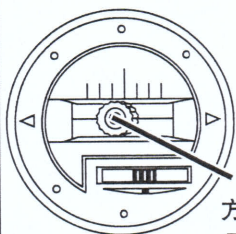
Rudder Servo
方向控制伺服器



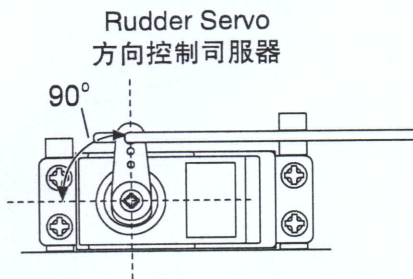
05

Radio Box
接收機艙

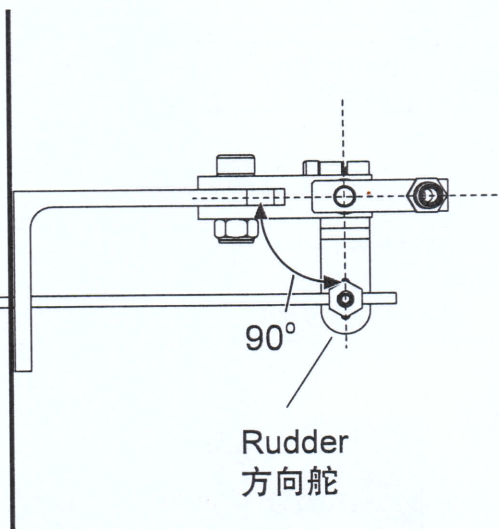
- With the Rudder Stick in neutral.
in neutral.
遙控器方向搖杆置于中立位置時,方向舵與伺服器的夾角成90度。



方向控制搖杆
Rudder Stick



Rudder Servo
方向控制伺服器

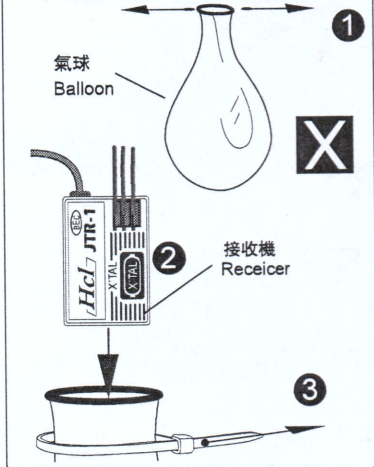


Rudder
方向舵

06

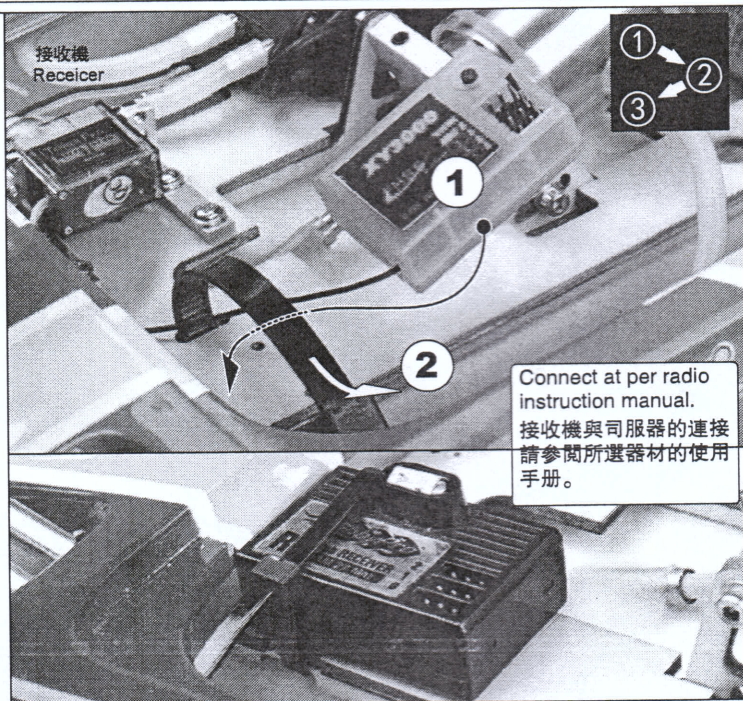
Radio Box
接收機艙

The watertightness handles
水密處理



氣球
Balloon

接收機
Receiver

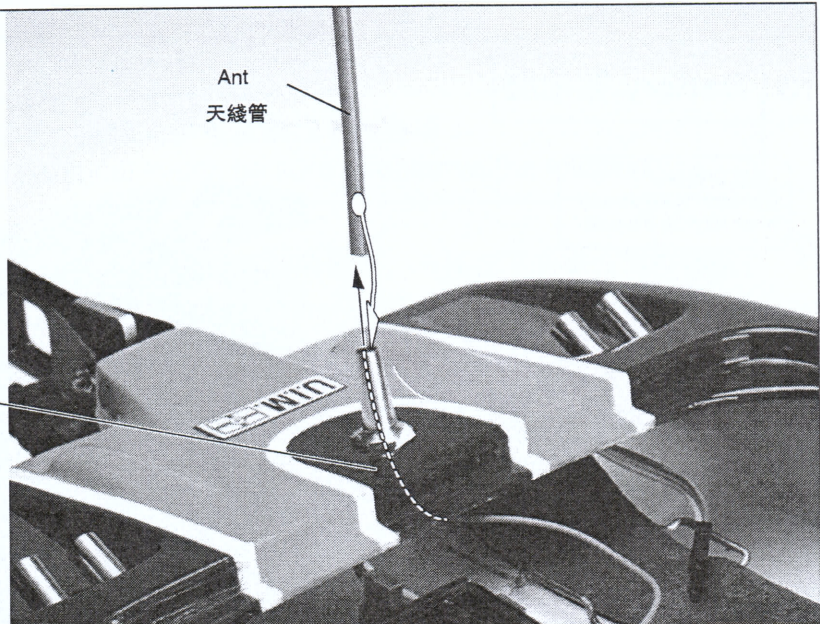
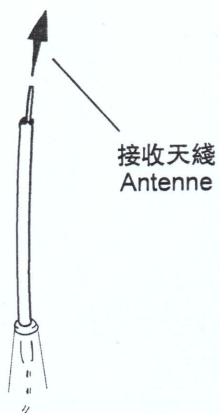


接收機
Receiver

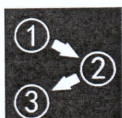
Connect at per radio instruction manual.
接收機與伺服器的連接請參閱所選器材的使用手冊。

X 另外購買
Must be purchased separately!

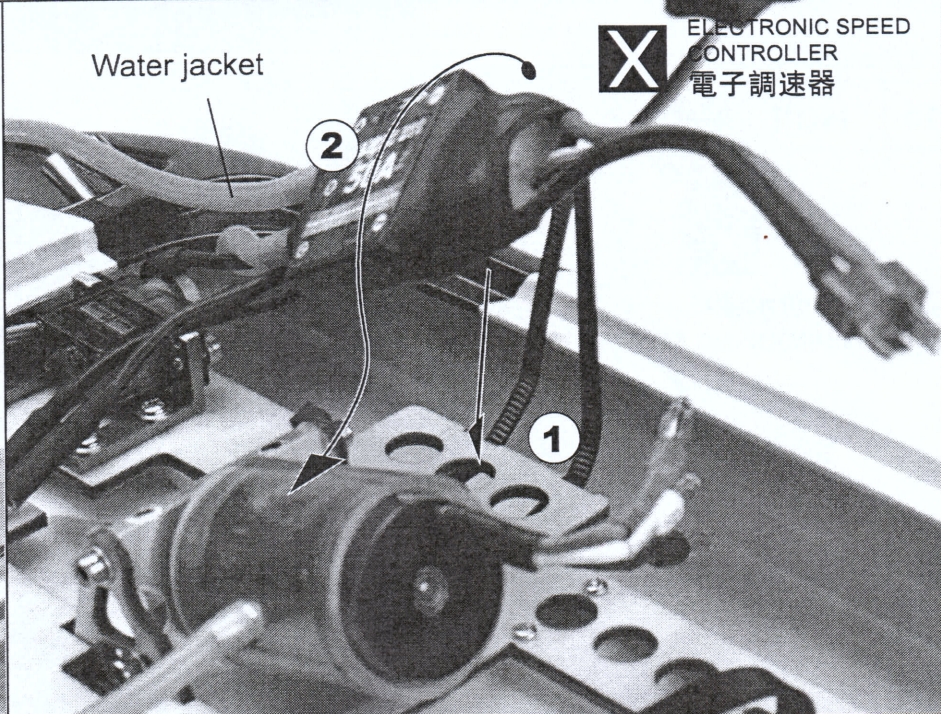
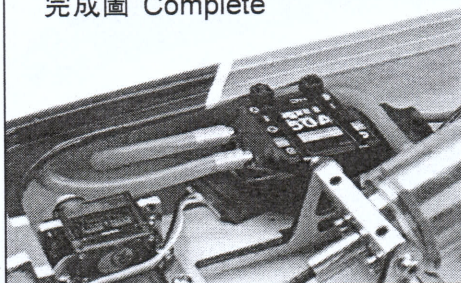
07 Battery 電池艙



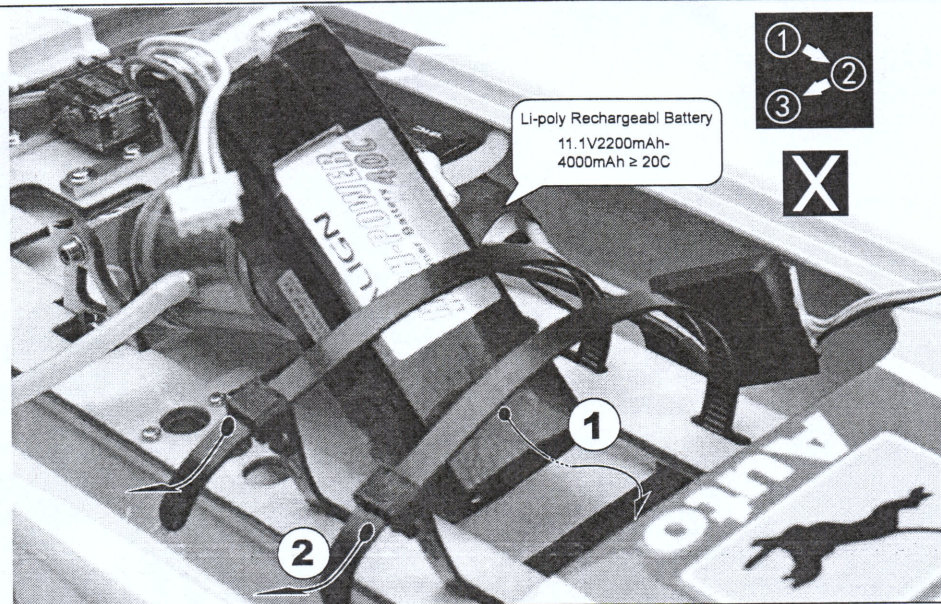
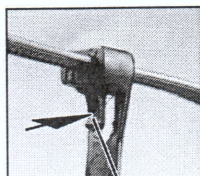
08 INSTALLING THE ESC



完成圖 Complete



09 Battery 電池艙



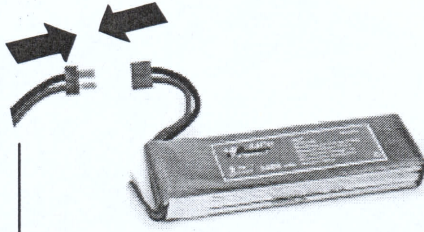
另外購買
Must be purchased separately!



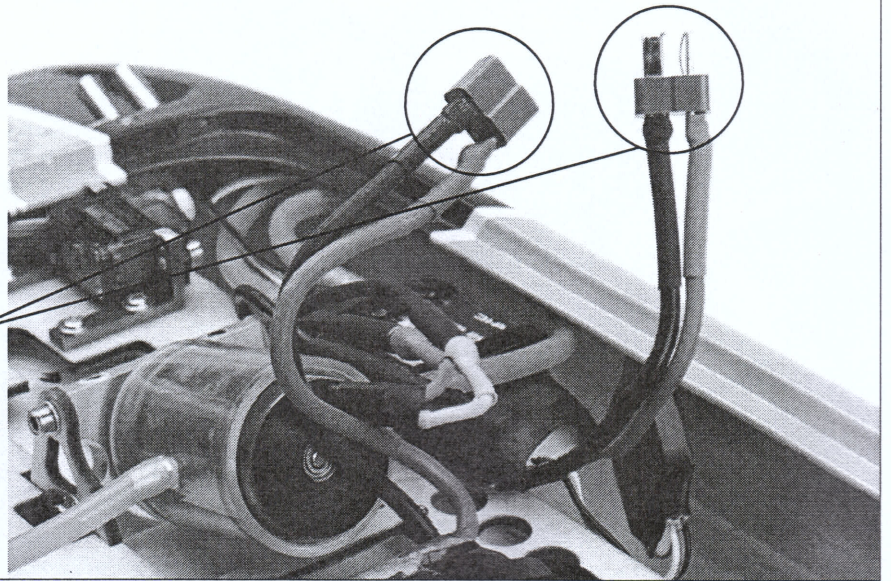
按編號順序組裝。
Assemble in the specified order.

10 Battery 電池艙

出航前接合。
Connect the cords only
when running the boat.



ELECTRONIC SPEED
CONTROLLER
電子調速器

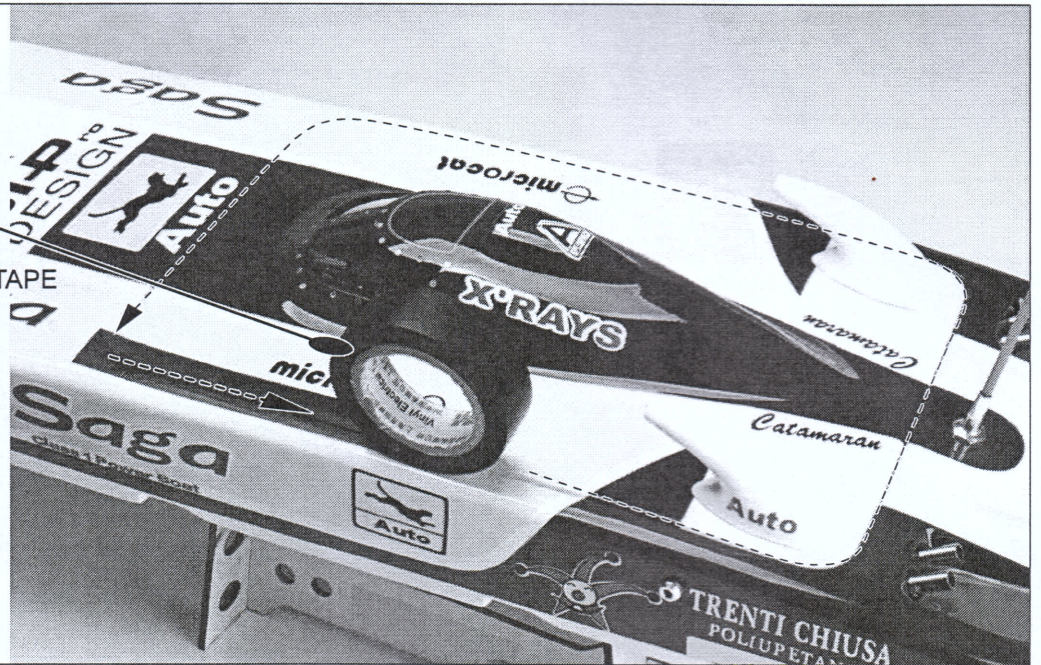


11 Hull 船體

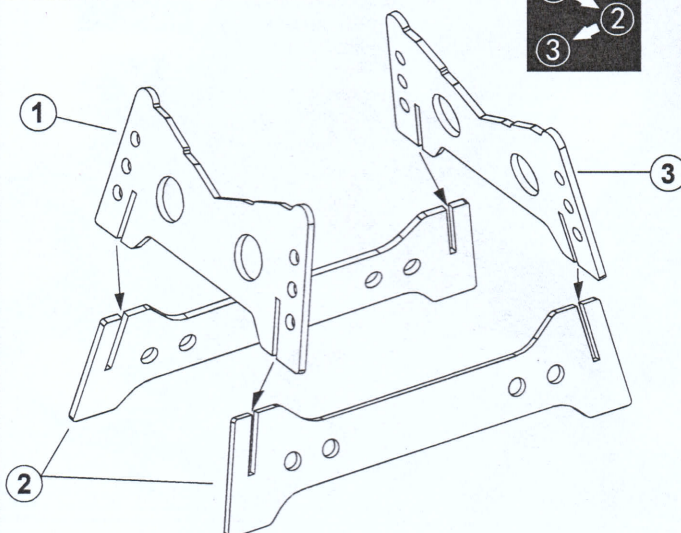
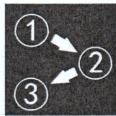


防水膠紙

WATERPROOFING CLEAR TAPE



12 Stand 船臺



Finished Stand



另外購買
Must be purchased separately!



按編號順序組裝。
Assemble in the specified order.



為了避免意外事件和個人受到傷害，請認真參考及執行下列各項：
In order to avoid accidents and personal injury, be sure to observe the following:

- 籍着 R/C 遙控船，帶領你步入樂趣無窮的遙控世界。在河流、湖泊操控遙控船之時，請留意其他正常航行的船祇，做足安全措施，避免意外事件的發生。
With R/C boats, discover a new world of pleasure. Whether you run your boat on lakes, rivers or elsewhere, take precautionary measures to avoid accidents.

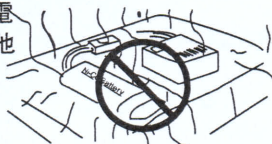
- 請不要嘗試將你的手和其他物件靠近或阻擋高速轉動的部件，因為這樣會造成無法彌補的傷害。
Do not put your hands or any objects into rotating parts, as this could result in serious accidents!



- 因為電池和馬達在運行一段時間後，會產生一定的熱量，請待他它們冷卻後再觸摸。
The motor and Ni-Cd battery get hot from running. Do not touch them for a while after running.



- 充電中的 Ni-Cd 電池與充電器會產生高熱，請不要將他們靠近易燃物體，以避免火警的發生。

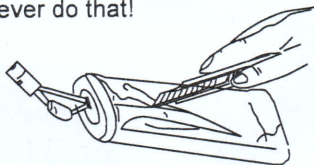


Never put the charger and Ni-Cd battery near flammable material while charging as this may cause fires!

- 在以下的操作中，可能會令電池短路，從而觸發火警的發生，或其他意外事件。

Under the following circumstances, short circuits may occur and result in fires or other accidents:

- 請不要將 Ni-Cd 電池分解、改造。
When disassembling or modifying Ni-Cd batteries. Never do that!



有爆炸的危險
EXPLOSIVE

- 當 Ni-Cd 電池投入火中時，會發生爆炸或產生有毒的氣體，這樣做非常危險，絕對禁止！

Never dispose of Ni-Cd batteries into a fire, as these can explode or emit noxious gases from heavy metals used in Ni-Cd batteries!



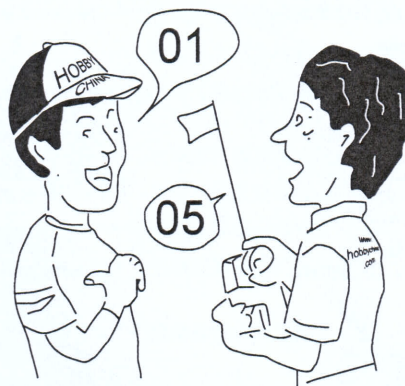
有爆炸的危險
EXPLOSIVE

- 為預防事故的發生，不要在下列場合操控模型：
For accident prevention, do not run your model under the following circumstances:

在人群聚集的地方。
in places where many people gather!

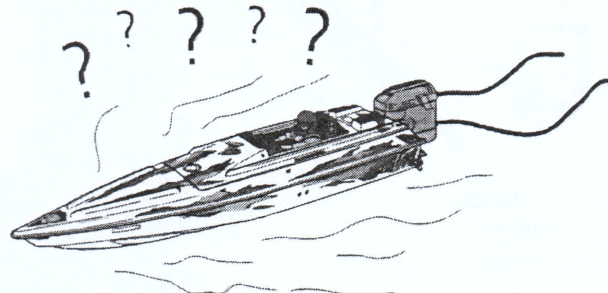
當江河漲潮、水位增高時，它們的涌流是非常強大的！
when rivers are swollen or their current is strong!

每個遙控模型操縱者在接通發射機開關之前，必先確認周圍沒有相同頻率的人。
Also make sure that nobody is using the same frequency as you do at the same time!



- ▶ 密切關注接收機的剩餘電量！
with weak radio batteries!

- ▶ 當船體姿態、操控異常時！
when the boat behaves or operates strangely!



- 當模型不使用時，請將遙控器及接收機的電源切斷，並將 Ni-Cd 電池電源拔掉，放到安全的地方。

When NOT using the model, always switch off the receiver and transmitter! Furthermore, disconnect the Ni-Cd battery and remove it from the model! This may lead to overheat and fires!



檢查
CHECK

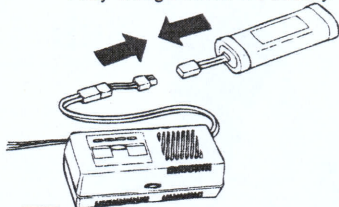
- 不要隨意拋棄廢舊的 Ni-Cd 電池，請將他們送回零售商店！
Do not dispose of Ni-Cd batteries! Return them to the retail shop!

出航前檢查 PRE-RUN CHECKLIST

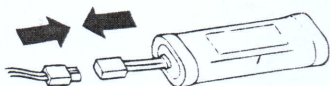
- | | |
|--|---|
| <ul style="list-style-type: none"> <input type="checkbox"/> 所有的螺絲有沒有按要求上緊? <input type="checkbox"/> 遙控器的電池有沒有充滿電? <input type="checkbox"/> 用作動力的Ni-Cd電池有沒有充滿電? <input type="checkbox"/> 方向舵動作是否與遙控器的設定一致? <input type="checkbox"/> 速度控制裝置的動作是否與遙控器的設定一致? <input type="checkbox"/> 用作動力的Ni-Cd電池是否安裝牢固? <input type="checkbox"/> 航行的區域有沒有安全隱患? <input type="checkbox"/> 周圍有沒有使用相同頻率發訊的人? <input type="checkbox"/> 螺旋槳是否牢固可靠? <input type="checkbox"/> 傳動部分有沒有塗抹潤滑油脂? <input type="checkbox"/> 可轉動部分是否流暢運行?有否卡死? | <ul style="list-style-type: none"> <input type="checkbox"/> Are all screws securely tightened? <input type="checkbox"/> Are the radio batteries fully charged? <input type="checkbox"/> Is the Ni-Cd battery fully charged? <input type="checkbox"/> Does the rudder operate according to your inputs on the transmitter? <input type="checkbox"/> Does the speed controller operate according to your inputs on the transmitter? <input type="checkbox"/> Is the Ni-Cd battery securely attached? <input type="checkbox"/> Is the running area safe? <input type="checkbox"/> Is nobody on your frequency when running at the same time in the same area? <input type="checkbox"/> Is the propeller securely attached? <input type="checkbox"/> Are all rotating parts greased? <input type="checkbox"/> Can all moving parts move freely, without binding? |
|--|---|

正確的操作步驟 PROPER OPERATING PROCEDURES

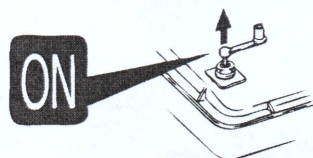
- 1** 給提供動力的電池充電。
Fully charge the Ni-Cd battery.



- 4** 接上動力電池。
Connect the Ni-Cd battery.

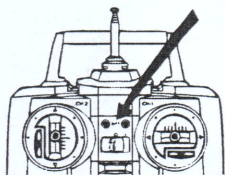


- 7** 打開接收機的電源開關。
Switch on the receiver.

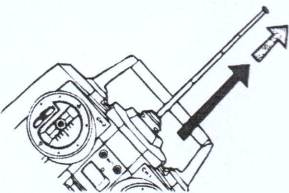


- 10** 確定出航的區域安全可靠。
Make sure the running area is safe.

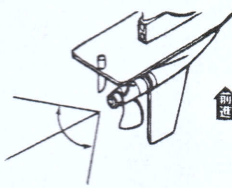
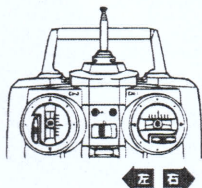
- 2** 檢查發射器電池
Check the transmitter batteries



- 5** 拉出發射機天線。
Extend the transmitter antenna

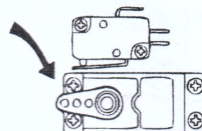


- 8** 確定方向舵的操控方向與你設定的方向一致。
Make sure the rudder operates according to your inputs on the transmitter.

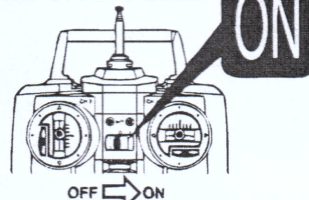


- 3** 確認速度控制伺服器在關的位置。

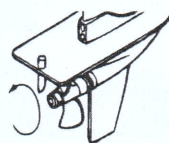
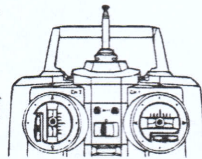
Ensure that the speed control servo is in off position.



- 6** 打開遙控器開關。
Switch on the transmitter.

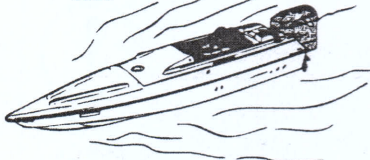


- 9** 確定速度控制器的動作與你在遙控器設定的動作一致。
Make sure the speed controller operates according to your inputs on the transmitter.

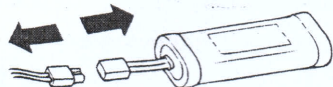


歸航後... AFTER RUNNING...

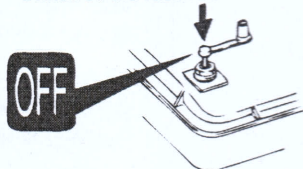
- 1** 歸航後將船收起。
After finishing running, collect your boat.



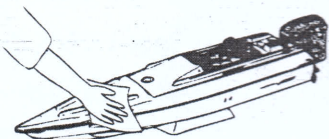
- 4** 分離動力電池。
Disconnect the Ni-Cd battery.



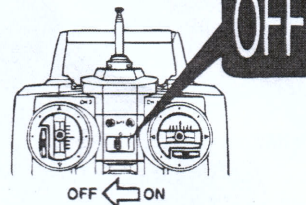
- 2** 關閉接收機電源。
Switch off the receiver.



- 5** 將船身的污垢擦淨。
Remove dirt from the hull.



- 3** 切斷發射機電源。
Switch off the transmitter



當模型不使用時，請將發射機及接收機的電源關閉，並將動力電池從船身移開，因其可能令船身過熱或造成火險隱患。When NOT using the model, always switch off the receiver and transmitter! Furthermore, disconnect the Ni-Cd battery and remove it from the model! This may lead to overheat and fires!



日常維護 EVERYDAY MAINTENANCE

- | | |
|--|---|
| <input type="checkbox"/> 確認螺絲等部件有沒有上緊，其他部件有沒有老化。
<input type="checkbox"/> 可轉動部件塗抹上滑脂。

<input type="checkbox"/> 檢查、整理連接纜線有否破損，不要讓他們纏繞在一起。
<input type="checkbox"/> 應該將損壞的伺服系統送回制造商修理。

<input type="checkbox"/> 確定所有部件都完好無損。

<input type="checkbox"/> 將船體的污垢清除乾淨。

<input type="checkbox"/> 排出船身的積水，讓其保持乾燥。 | <input type="checkbox"/> Make sure screws and nuts are securely tightened and other parts are not worn.
<input type="checkbox"/> Grease all rotating parts.

<input type="checkbox"/> Repair the wiring should cords be damaged or drag into rotating parts.
<input type="checkbox"/> Should servo cords and the receiver antenna be damaged, return them to the manufacturer for repair.
<input type="checkbox"/> Make sure all parts are neither worn nor damaged.

<input type="checkbox"/> Remove dirt from the hull.

<input type="checkbox"/> Draw out water from inside the hull. |
|--|---|

故障分析及處理

癥 狀	原 因	對 策
速度控制伺服器沒反應。	發射機或接收機電源還沒有打開。 發射機電源電力不足。 遙控系統安裝出錯。	將發射機或接收機電源打開。 換上電力充沛的電池。 參考《遙控器安裝使用手冊》重新安裝。
馬達不轉動。	電池電力不足。 線路安裝錯誤。 線路接觸不良。 馬達有問題。	對電池重新充電。 依照指導手冊改正。 重新上緊連接部分。 更換新馬達。
馬達正常轉動但船不動。	傳動機構安裝出錯或螺絲鬆動。	將傳動機構的螺絲上緊。
用手轉動傳動部分時覺得很緊或不轉動。	傳動部分有污垢。	清除乾淨并塗抹滑脂。
將速度控制搖杆降低，但船還是不停下來。	不正確的遙控設備調整。	調整速度搖杆微調。或依照使用說明手冊重新調整。

TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Speed control servo does not operate.	Transmitter and/or receiver is not switched on. Transmitter batteries are weak. Improper radio installation.	Switch on. Replace with new batteries. Correct as per radio instruction manual.
Motor does not rotate.	Ni-Cd battery capacity is insufficient. Improper radio installation. Loose connectors. Motor trouble.	Recharge Ni-Cd battery. Correct as per instruction manual. Make connectors tighter (e.g. with minus screwdriver). Replace with new motor.
Motor rotates but boat will not run.	Joint is not installed. Or, screws are loose.	Tighten screws holding joint.
When rotating by hand, propeller feels heavy or does not rotate.	Dirt entered rotating parts.	Clean and regrease.
Even when releasing speed control, boat will not stop.	Improper linkage adjustment.	Adjust speed control trim on transmitter. Should speed controller not return to neutral, readjust linkages as per instruction manual.

#10117 FLOWMASTER BRUSHLESS EP

Parts No.	Description	Unit
TEF3.2	TEFLON TUBE	PCS
M10117027XA	FLEXIBLE DRIVE SHAFT	PCS
M10006013	SHAFT COUPLER 3.18mm	PCS
M10001020	DRIVE DOG 4*8mm	PCS
P10001000	PROP SPACER	PCS
P432-3	PROPELLER D32 * P1.4 3BLADE	PCS
M10117036	CNC STRUT & RUDDER SET 8.5mm	SET
P10006010	MOTOR WATER COOLER	PCS
P10001001	SILICON TUBE 50cm	PCS
M12001043	AL ANT HOLDER	PCS
M10001024X	CONTROL ROD SET	SET
P10001022	FLEX-ROD BOOTS (2PCS)	PAIR
W10117001	BOAT STAND	PCS
MT2848-2636	BRUSHLESS MOTOT B2848-2636KV	PCS
ESC50A	BRUSHLEES SPEED-CONTROLER	PCS
BER 4*7F	BALL BEARRING 4 * 7F	PCS
BER 4*7	BALL BEARRING 4 * 7	PCS
NUT4	PROPELLER NUT 4mm	PCS
W10117039	PLYWOOD BATTERY TRAY 5pcs	PCS
M10018014X	SERVO MOUNT 2PCS	SET
P12001002	ANT TUBE	PCS

EXCEED