XFS15

MST max SPEED TECHNOLOGY

BRUSHED ESC MANUAL

601002

SPECIFICATION

❶ Input Voltage : 7.2V~8.4V(Ni-Cd/MH) / 7.4V(Li-Po) / 6.6V(Li-Fe)
① Cell number NiCd/NiMH: 6 or 7 (7.2V/8.4V), but there is no integrated LiPo low voltage protection!
② Cell number Lipo: 2 (7.4V)
③ Cell number LiFe: 2 (6.6V)
❷ Output : Forward Rating 70A Peak: 500A/10sec, Backward Rating: 100A (FET specified)
Steady current (Forwards) : 5 minutes/70A, 30 seconds/80A, 1 second/106A
Steady current (Backwards) : 5 minutes/35A, 30 seconds/40A, 1 second/53A
❸ Out max power : 504W BEC 5V 1A (MAX 1.5A)
❹ Size/Weight : 33.4mm x 34.5mm x 27.5mm / 50g
❺ Motor limit : 15 turns [≦ 7.2V (6 cells)], 17 turns [8.4V (7 cells)]
❻ Pulse frequency : 1 KHz

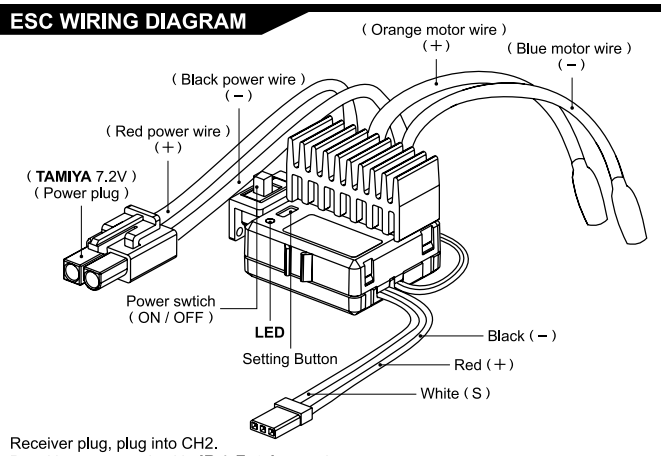
LOW POWER BARRERY AUTO-CUT OFF

Battery / Volt	7.2V	7.4V	6.6V
AUTO	Initial Detected Voltage ×70%		
Ni-Cd/Ni-MH	5.4V		
Li-Po		6.0V	
Li-Fe			4.8V

OVER TEMPERATURE PROTECTION

Motor will be intermittently turned off & on when the temperature reaches around (98+− 3~5)˚C

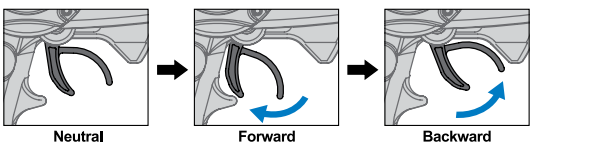
ESC WIRING DIAGRAM



Receiver plug, plug into CH2.
Polarities only match with **JR** & **Futaba** receiver.
Be careful to check for other brand receivers before plugging.

TEST OF THROTTLE DIRECTION COINCIDENCE

1 Wiring ESC according to left diagram. → **2** Switch on the transmitter. → **3** ESC denotes a sound and starts setting neutral. → **4** Denotes by another confirmation sound after succeed in setting neutral.



Refer to the above test sequence right above setting is completed.
Push the throttle trigger forwards, quickly pull the throttle trigger backwards & hold it. If the system keeps braking, the throttle direction test is ok.
Otherwise, if it drives reversely, the throttle and ESC forward direction does not coincide with each other. Change the throttle reversing switch of the transmitter, turn off & then turn on the ESC power again will correct the problem.

	Neutral	Forward	Full throttle
LED	Yellow	Red blinking fast	Red

	Brake	Full throttle
	Red blinking slowly	Red

	Backward	Full throttle
	Red blinking slowly	Red

WARNING

❶ Avoid touching ESC heat sink or motor casing right after operation for not burning your body or skin.
❷ To avoid poor contact or overheat melting of connector and power abnormal cut off be sure to always use better current rated connector & wires while replacing the original ESC connector or elongating the connecting wires.
❸ Connect the battery pack just before driving, disconnect & take it out of the car immediately after termination. Don't solder ESC wires directly to the battery. A proper connector is a must to be used in between.
❹ Always make sure connecting the ESC to a proper power source that has the correct voltage & polarity. Incorrect voltages or reversed polarity will damage the ESC. Don't solder ESC wires directly to the battery. A proper connector is a must be used in between.

SET PROCESS

LED indication: Red for selection of setting mode.,
Yellow for selection of mode parameter

Set Detail: (Number of ● = Blinking times, for example
● = 1 time,
●● = 2 times and so forth)

SETTING MODE (RED)

Mode select LED		Setting mode (Red)	Selection of mode parameter
Red	●	Reverse Power	4 phase (OFF LO MI HI)
Red	●●	Start Power	4 phase (Starting power from lowest to highest proportionally)
Red	●●●	Drag Break	4 phase (Breaking power from lowest to highest proportionally)
Red	●●●●	Battery Type	4 phase (Auto Ni-cd/Ni-MH Li-po 7.4V Li-Fe 6.6V)

SETTING MODE (YELLOW)

	●	●●	●●●	●●●●
Reverse Power	OFF	LO	MI	HI
Start Power	Standard	LO	MI	HI
Drag Break	OFF	LO	MI	HI
Battery Type	AUTO	Ni-Cd / MH	Li-Po 7.4V	Li-Fe

Press set button then power on
↓
Denoted by 3 beeps of " DDD" –> Release set button, LED turns to Red color & blinks one time, now it's at the 1st set mode (Reverse Power)
↓
Quickly press set button one time
↓
Red Led blinking two times, at the 2nd set mode
↓
and so forth...

Selection of mode

Press set button and hold it , Denoted by a short beep and a long beep of " D", Release set button. LED color turns to yellow from red. It's now at the selection of mode parameter.
Reverse Power

selection of mode parameter continuous.

OFF → Quickly press set button one time → LO → Quickly press set button one time → MI → Quickly press set button one time → HI

Press down set button more than1 second, after denoted by a short beep and a long beep of "D". ESC setting is now completed & ready to use.

Press set button and hold it , Denoted by a short beep and a long beep of " D", Release set button. LED color turns to yellow from red. It's now at the selection of mode parameter.
Start Power

selection of mode parameter continuous.

Standard → Quickly press set button one time → 2 → Quickly press set button one time → 3 → Quickly press set button one time → 4

Press down set button more than1 second, after denoted by a short beep and a long beep of "D". ESC setting is now completed & ready to use.

026033

XFS15

MST max SPEED TECHNOLOGY

有刷變速器說明書

601002

規格

❶ 輸入電壓：7.2V~8.4V(Ni-Cd/MH) / 7.4V(Li-Po) / 6.6V(Li-Fe)
❷ 輸出能力：前進連續 70A 瞬間最大 500A，後退連續 100A(FET規格)
❸ 最大輸出功率：70A / 7.2V (MAX 504W)
❹ BEC：5V 1A
❺ P.W.M：1KHz
❻ 尺寸 / 重量：33.4mm X 34.5mm x 27.5mm / 50g
❼ MOTOR：支援高於 15T 以上之 540 規格馬達 / 7.4V

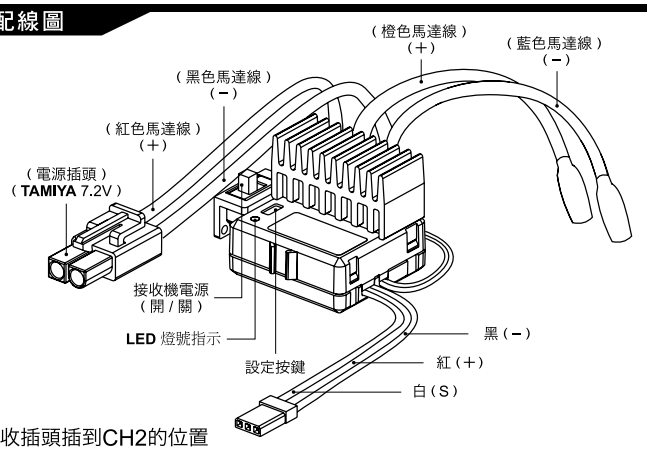
截止電壓

Battery / Volt	7.2V	7.4V	6.6V
AUTO		開機電壓 ×70%	
Ni-Cd/Ni-MH	5.4V		
Li-Po		6.0V	
Li-Fe			4.8V

過溫保護

全時溫度偵測溫度達98度(±3至5度)時啓動保護功能，避免變速器因過溫操作而燒毀，啓動溫度保護時變速器會間歇性輸出。

配線圖

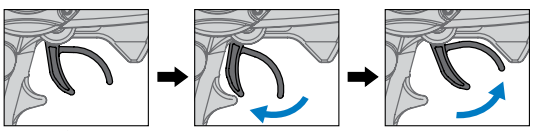


接收插頭插到CH2的位置

注意：這個插頭的極性目前只對應 **JR & Futaba** 的接收機，其他廠牌的接收機請自行確認極性。

設定及變速器方向檢測

1 依照左圖接線 → 2 打開發射機電源 → 3 變速器發出開機音，並自動抓取中立點。 → 4 抓取完成會再發出確認聲，即完成自動中立點設定。



完成設定後，接下來就是測試前進後退的方向是否正確。
測試方向如上圖示：
將油門往前進方向推進，然後迅速往後退方向推到底，如此時馬達呈煞車狀態即方向正確。
如呈馬上反轉，即遙控器油門 (**TH**) 正逆相反；此時需切換遙控器註明 **REV** (REVERSE) 之切換開關。切換後將變速器開關關閉再重新開啓即可。

以下表格為 LED 燈號顯示：變速器上之 LED 燈 [雙色 (紅 & 黃)]

	中立點	前進	全速	煞車	全煞	後退	全速
LED	黃燈恆亮	紅燈快閃	紅燈恆亮	紅燈慢閃	紅燈恆亮	紅燈慢閃	紅燈恆亮

注意事項

❶ 請勿將電源正負極逆接，因一旦輸入端的正負極性逆接，會對本變速器造成毀滅性且無法修復的傷害，在此狀況下本公司不負責保固責任。
❷ 如須延長輸入或輸出端的線長時，其線徑規格不可比現在的線徑規格小，較小的線徑在大電流情況下銅線的阻抗造成的損耗是以平方倍增加，造成導線發熱和電壓下降，另外選錯連接插頭也是造成壓降常見的原因之一，壓降太大常造成馬達轉速無法全速，導線發燙，如發生在輸入端則常造成BEC截止點提早發生等等。
❸ 遙控車的馬達及變速器在操作中會產生高溫，操作後要避免碰觸，操作完畢應將電池和變速器間的插頭拔開，並將電池和車體分開存放。
❹ 本電子變速器並不具備防水功能，使用時請避免使變速器進水，如不慎進水的話應立即拔開電池插頭，並用吹風機以中溫度吹乾後再通電測試。

設定操作說明

燈號顯示：**紅燈** (選擇模式) **黃燈** (設定模式)
燈號顯示說明：(右圖燈號閃爍次數以 ● 數量表示)
例如 ：● = 閃爍一次，●● = 閃爍兩次，以此類推 . . . .

設定模組 (紅燈)

燈號	閃爍次數	設定模組 (紅燈)	設定段數
紅燈	●	後退功率 (Reverse Power)	4段(OFF LO MI HI)
紅燈	●●	前進功率 (Start Power)	4段(1 ~ 4段 起步功率由弱至強)
紅燈	●●●	中立點煞車 (Drag Brake)	4段(OFF 10% 20% 30%)
紅燈	●●●●	電池規格 (Battery Type)	4段(AUTO Ni-Cd/Ni-MH Li-Po 7.4V Li-Fe 6.6V)

設定選項 (黃燈)

設定模組 (紅燈)	●	●●	●●●	●●●●
後退功率 (Reverse Power)	OFF	LO	MI	HI
前進功率 (Start Power)	Standard	LO	MI	HI
中立點煞車 (Drag Brake)	OFF	LO	MI	HI
電池規格 (Battery Type)	AUTO	Ni-Cd / MH	Li-Po 7.4V	Li-Fe

按住 SET 鍵後開啓電源
↓
聽到 Di Di Di 三聲後放開 SET 鍵
此時 LED 呈紅燈閃爍一次 (第一模組)
Reverse Power
↓
輕按一次 SET 鍵
↓
紅燈閃爍兩次 (第二模組)
Start Power
↓
以此類推 . . . .

選擇模組

按住 SET 鍵，聽到 Di 一短聲一長聲後放開，此時 LED 燈號由紅轉黃，即進入設定選項設定。
Reverse Power
選擇設定選項
OFF → 短按一次 SET 鍵 → LO → 短按一次 SET 鍵 → MI → 短按一次 SET 鍵 → HI
長按一次 SET 鍵，聽到 Di 一短聲一長聲即代表設定完成，可立即使用。

按住 SET 鍵，聽到 Di 一短聲一長聲後放開，此時 LED 燈號由紅轉黃，即進入設定選項設定。
Start Power
選擇設定選項
Standard → 短按一次 SET 鍵 → 2 → 短按一次 SET 鍵 → 3 → 短按一次 SET 鍵 → 4
長按一次 SET 鍵，聽到 Di 一短聲一長聲即代表設定完成，可立即使用。