為了確保正確的操作和服務，請先閱讀手冊上的說明，然後再進行安裝和操作

廠牌：MAXXIS / 品名：無線胎壓接收器
型號：M168+
MAXXIS TPMS 無線胎壓監測系統操作手冊

目錄

為了確保正確的操作和服務，請先閱讀手冊上的說明，
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MAXXIS TPMS 無線胎壓監測系統

無線胎壓監測系統（TPMS）可提高駕車時的安全。一旦安裝在您的車輛，系統會自動監測您輪胎的實際壓力和溫度。當輪胎的壓力或溫度出現異常時，監測系統會主動警示，並顯示出數字提醒使用者。該系統輔助的安全，可以延長輪胎壽命和降低燃油消耗。

警告

NCC 警語

低功率電波輻射性電機管理辦法

第十二條

型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指依電信法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

本器材須經專業工程人員安裝及設定，始得設置使用，且不得直接販售給一般消費者。

警告 任何的自行修改或變更系統本體將無法保證操作者的權益繼續受到保護。

產品警告

本系統是利用無線胎壓感測發射器量測輪胎內的壓力及溫度並以無線電訊號傳輸，在正常運作過程中，無線胎壓監測器會以數值來表示接收到正常的輪胎壓力或溫度，當系統中的任一個或多個無線胎壓感測發射器偵測到輪胎處於異常之胎壓或胎溫時，無線胎壓感測發射器會立即傳送警告訊號至車內的無線胎壓監測系統，當無線胎壓監測器收到輪胎有異常的訊號後，會立即發出"嗶"聲警告並同時以紅色數字顯示通知駕駛者需立即檢查及修復輪胎，以避免因輪胎胎壓不足或溫度過高之類問題而造成意外發生。

警告 本系統是無線傳輸訊號，因此在某些特殊環境狀況下有該系統可能會因為干擾因素或錯誤操作方法或不當的安裝方法致使無線訊號減弱或收不到訊號之狀況發生，若無線胎壓監測器持續 20 分鐘接收不到某一輪胎之訊號時，該輪胎的顯示數值會顯示"E2"。此時應將汽車遠離目前位置(可能附近有強烈的無線訊號干擾)或盡速前往指定的輪胎保修廠檢查輪胎內的無線胎壓感測發射器是否有故障發生或輪胎內無線胎壓感測發射器之電池耗盡(電池可能因為經常有異常狀況出現，而需要連續發射無線電波訊號警告駕駛人，使得電池壽命比正常使用年限短)。若系統持續 20 分鐘以上接收不到任何一輪的訊號，則可能為無線胎壓監測器故障，此時四輪輪胎的顯示數值皆會顯示"E1"，請將裝汽車遠離目前位置(可能附近有強烈的無線訊號干擾)或將無線胎壓監測器送回經銷商檢修。

系統安裝及使用

無線胎壓監測系統要求要有正確的安裝方法並經由合格操作人員依照安裝手冊之步驟進行系統安裝，該系統才能正確動作並提供保固。因安裝不當或拆卸而損壞無線胎壓感測發射器者，將不受產品保固。本系統適用於轎車，越野車和吉普車的輪胎使用，最大可量測壓力為 74 psi (表壓力)，本系統不適用於鐵製輪框。

※強烈建議每年定期更換或檢查"輪胎氣門嘴"，避免輪胎氣門嘴有漏氣等現象發生。

系統警告方式

當警告燈號及嗶聲響起時，應該減低速度並尋找安全停靠位置檢查輪胎並立即到就近合格之輪胎修護廠進行修復。

胎壓過低警告表示輪胎胎壓之壓力已經洩漏至安全胎壓值以下。

溫度過高警告表示輪胎溫度已經高過安全標準值。

電瓶電壓過低警告表示電瓶電壓已經低於 11.0 伏特。

化學物品使用

密封膠或特殊輪胎充填化學物質可能導致胎壓監測系統的誤動作或影響無線胎壓感測發射器的動作。

廢電池請回收

無線胎壓監測系統規格

無線胎壓監測器規格表	
操作電壓	直流 12V
操作電流	< 200mA
儲存溫度	-30°C to 75°C
工作溫度	-25°C to 75°C
無線胎壓感測發射器規格表	
儲存溫度	-40°C to 125°C
工作溫度	-40°C to 125°C
工作濕度	最大 95%
工作頻率	433.92MHz ± 50kHz
胎壓監測範圍	0~74 psi
胎壓讀取誤差值	正常壓力狀態下± 1psi
胎溫讀取誤差值	± 4°C (一般正常環境下)
無線胎壓感測發射器功率	最大 75 dBμV/m
電池電壓	3V
無線胎壓感測發射器重量	28g ± 3g

系統安裝

無線胎壓監測系統分成兩個部份，分別說明安裝方法如下：

1. 無線胎壓監測器安裝於車內
2. 無線胎壓感測發射器安裝於輪胎內

【* 強烈建議先安裝無線胎壓監測器後，再安裝 4 組無線胎壓感測發射器 】

保固範圍包含”無線胎壓監測器,無線胎壓感測發射器和電源連接線”，其餘配件皆屬消耗品不在保固範圍內。

注意：欲將已在使用中的無線胎壓感測發射器安裝到另一輪胎及更換無線胎壓感測發射器時，建議將所有氣嘴和螺絲全面換新。

無線胎壓監測系統配件清單

NO.	產品單元名稱	數量
A	無線胎壓監測器(內建無線接收電路及 LED 顯示器)	1
B	魔鬼氈	2
C	電源連接線(點煙器電源接頭)	1
D	無線胎壓感測發射器	4
E	輪胎氣嘴	4
F	氣嘴鎖附螺絲(耐落處理螺絲)	4
G	磁性擋風玻璃吸附支架(依實物為主)	1

【警告 】本產品之電源連接線不得用於其它產品，亦不支援 USB 介面，請勿連接至任何 USB 裝置，以免發生故障。

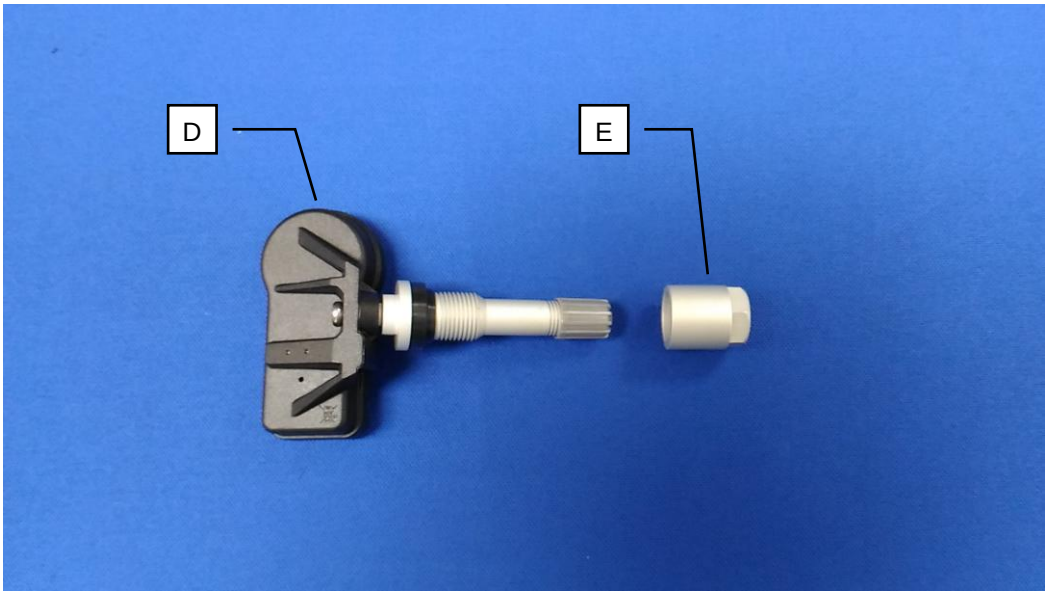
無線胎壓監測器安裝

1. 將電源線(C)的一端插入無線胎壓監測器(A)的下方的電源接孔處。
2. 將電源線(C)的一端點煙器接頭插入汽車的點煙座內。
   (或是切斷點煙器接頭，將 ACC、正極、負極電源線接入保險絲盒。)

【注意】將 ACC、正極、負極電源線接入保險絲盒，當 ACC 啟動後 LED 燈才會顯示，ACC 關閉時 LED 燈就會熄滅。

3. 安裝無線胎壓監測器於汽車儀表板適合位置 - 將(B)2 個分別黏貼在無線胎壓監測器(A)背面及儀表板中適合位置。
4. 安裝完畢後請移除無線胎壓監測器上的保護貼。

無線胎壓感測發射器安裝



步驟	操作流程	圖示
1	使用千斤頂將車體抬高。建議請參考完整的車輛使用手冊，或尋求專業的合格技工人員協助。	
2	拆下輪胎並將輪胎洩氣，然後將輪胎拆下並將鋁圈上的氣嘴移除(必須更換成的特殊標準型氣嘴)，此步驟通常需要合適的輪胎更換機器或工具。	
3	確認 4 組無線胎壓感測發射器(D)上的號碼及對應安裝的輪胎位置。(非常重要，必須依照順序分別安裝於正確輪胎位置) **a. RF – 1 = 右前輪, No. 1** **b. RR – 2 = 右後輪, No. 2** **c. LR – 3 = 左後輪, No. 3** **d. LF – 4 = 左前輪, No. 4**	
4	安裝新的胎壓監測系統標準氣嘴(E)在鋁鋼圈上。 使用板手固定氣嘴，再將氣嘴螺帽鎖緊，鎖附扭力要 40~45kgf-cm (4~4.5Nm)。	
5	確認清除輪胎內部染物或水漬，以避免染物或水漬影響或破壞無線胎壓感測發射器。	

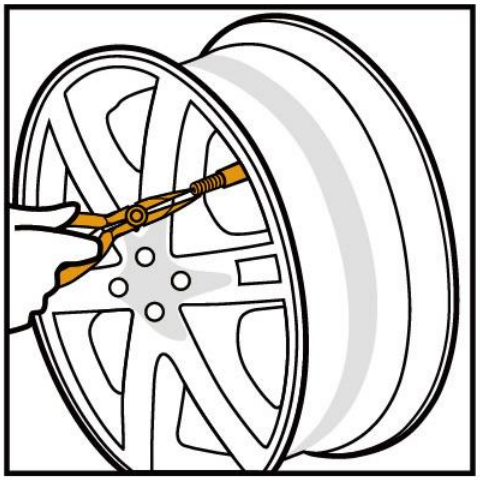
6	充氣到輪胎中，並校正輪胎的平衡： a. 將輪胎架設於輪胎平衡器上校正輪胎平衡。 b. 可能需要加放鉛塊來校正輪胎平衡。 c. 校正輪胎平衡直到輪胎平衡機顯示”OK”。 上述步驟需要輪胎調整服務機器，校正輪胎平衡對於 TPMS 中的無線胎壓感測發射器正常運作十分重要。	  
7	依照同樣安裝程序將其他三個輪胎安裝完成。	
8	啟動汽車電源直到電源啟動點煙器，視車型不同可能是在第一或第二位置，車內無線胎壓監測器將被啟動，監測器上的功能鍵可以依使用者需求來控制監測器顯示各輪胎的壓力值或溫度值。	

1

Jack up the car and de-mount the tire.

使用千斤頂將車體提高

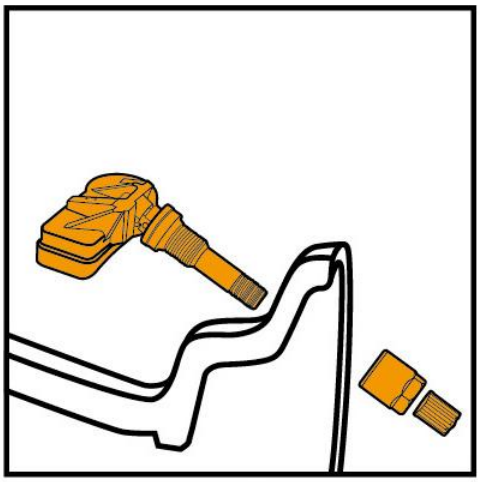
2



Remove original valve.

取出原氣嘴,小心清理殘留物

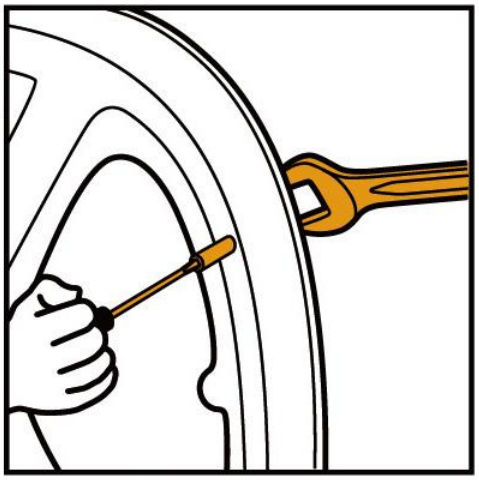
3



Sensor Assemble

無線胎壓傳感器安裝

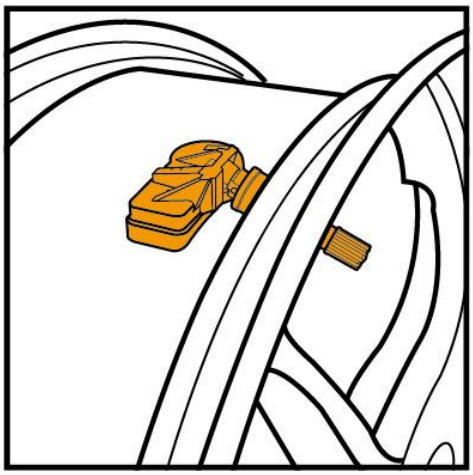
4



Tighten the valve by wrench and screw it (Torque value must be ≧ 4Nm)

使用扳手固定氣嘴,再鎖緊螺帽
(鎖附扭力要≧4Nm)

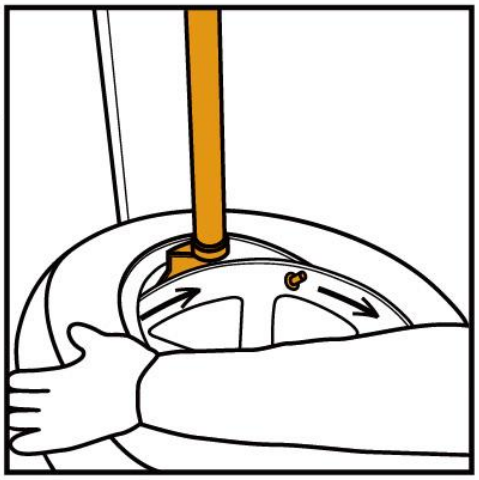
5



Tighten up screw

先調整無線傳感器的角度並盡量貼附於鋁鋼圈上, 再鎖緊固定

6



Install the tire from left side of the valve clockwise direction, avoid tire bead hits valve and sensor.

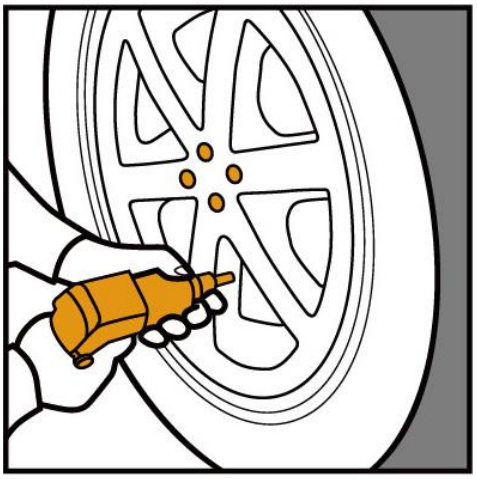
安裝輪胎,從氣嘴的左側為起始點, 務必避開傳感器及氣嘴,以避免破壞傳感器

7

Balance the tire.

輪胎平衡矯正,可能需要加放鉛塊, 直到輪胎平衡機顯示" 平衡OK"

8



Mount the tire to it's position.

依照輪胎位置將已裝好無線傳感器之輪胎分別裝回原位

系統操作

當系統被安裝之後，系統會自動開始進行輪胎的胎壓及胎溫監測，一旦汽車電源被啟動後並開動汽車，系統將會顯示出各個輪胎實際的胎壓和胎溫。

系統警告

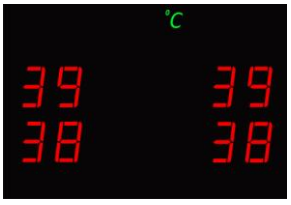
如果胎壓過低情況發生時，警報會啟動，然後顯示胎壓數值，反之胎溫過高時，警報會啟動，然後顯示胎溫數值，如果胎溫過高或胎壓過低的情況同時發生時，系統將會先顯示胎壓過低，然後顯示胎溫，兩者 6 秒交替輪流顯示。
警報會持續直到關閉警報或異常狀況得到解決，請參閱使用手冊『系統設定方法』。

系統設定方法

使用者可依照下列指示步驟進行系統調整及各種警告默認值變更。

※注意：輪胎標準進行默認值設定，若自行調整設定值時，需先詢問請教專業人員是否該自行調整值到輪胎安全警告範圍。

選擇觀看胎壓顯示或胎溫顯示

步驟	操作流程	圖示
1	按壓功能鍵，將轉換胎壓顯示、溫度顯示、汽車電瓶電壓及胎壓和胎溫單位兩者前後重覆交替顯示，使用者可自行設定選擇。	  
2	如果選擇在胎壓單位，按住功能鍵三秒鐘，顯示板上會切換於 kPa、 psi、 bar 之間，一旦選定單位後即可放開功能鍵。（例如於 psi 壓力單位下，按住功能鍵三秒鐘後放開，切換到 bar 壓力單位，再次按住功能鍵三秒鐘後放開，切換到 kPa 壓力單位，再次按住功能鍵三秒鐘後放開，切換回 psi 壓力單位，依此循環。）	  
3	如果選擇在胎溫單位，按住功能鍵三秒鐘，顯示板上會切換於°C、°F 之間，一旦選定單位後即可放開功能鍵。（例如於°C 胎溫單位下，按住功能鍵三秒鐘後放開，切換到°F 胎溫單位，再次按住功能鍵三秒鐘後放開，切換回°C 胎溫單位，依此循環。）	 

前/後輪標準胎壓值設定

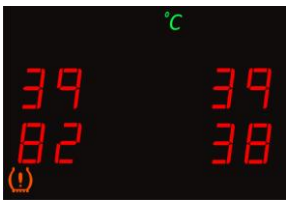
步驟	操作流程	圖示
1	按住設定鍵超過三秒鐘後進入前輪標準胎壓值設定模式。	【Set】Key
2	顯示板將會顯示預設前輪標準胎壓值(單位為 psi 初始設定值為 34 psi，單位為 kPa 初始設定值為 230 kPa，單位為 bar 初始設定值為 2.3bar) 。	
3	按下功能鍵可進行變更前輪標準胎壓值設定，每按一下功能鍵會增加 1psi，可調範圍為 20 psi~48 psi(單位為 kPa 可調範圍為 140 kPa~330 kPa，每次增加 10 kPa，單位為 bar 可調範圍為 1.4 bar~3.3 bar，每次增加 0.1 bar)，反覆循環，使用者可依不同類別輪胎的特殊要求進行調整。	【Function】Key
4	預設標準胎壓值 34psi/230kpa 而言，胎壓過高警示設定值為標準壓力值 1.5 倍為 51psi(單位為 kPa 初始設定值為 345kPa，單位為 bar 初始設定值為 3.5bar)； 胎壓過低警示設定值為標準壓力值 0.8 倍為 27psi (單位為 kPa 初始設定值為 184 kPa，單位為 bar 初始設定值為 1.8bar)。	
5	按下設定鍵則完成前輪標準胎壓值，系統會自動進入後輪標準胎壓值設定模式。	【Set】Key
6	後輪標準胎壓值設定，相同步驟 1～5 的前輪標準胎壓值設定。	

胎溫過高警告值設定

步驟	操作流程	圖示
1	完成後輪標準胎壓設定值後，系統自動進入胎溫過高警告設定模式。	
2	顯示板將會顯示胎溫過高警示設定值(單位為°C 初始設定值為 80°C，單位為°F 初始設定值為 176°F) 。	
3	按下功能鍵可進行變更胎溫過高警告值設定，每按一下功能鍵會增加 1°C，可調範圍為 60 °C ~100 °C (單位為 °F 可調範圍為 140 °F ~212 °F，每次增加 1 °F)，反覆循環，若輪胎溫度高於該設定值時則系統自動會進行警告的動作，使用者可依不同類別輪胎的特殊要求進行調整。	【Function】Key

4	設定完成後，按下設定鍵即完成胎溫過高設定並自動回到監控狀態。	**【Set】Key**

異常警告說明

形態	異常說明	圖示
1	右前輪胎壓 22 psi 低於胎壓過低警示設定值 27 psi，顯示板顯示胎壓數值，並啟動警報聲"嗶"來提示使用者，按下設定鍵可暫時關閉警報聲。（請前往修配廠健檢，解決異常問題，以確保您的行車安全）	
2	左前輪胎壓 52 psi 高於胎壓過高警示設定值 51 psi，顯示板顯示胎壓數值，並啟動警報聲"嗶"來提示使用者，按下設定鍵可暫時關閉警報聲。（請前往修配廠健檢，解決異常問題，以確保您的行車安全）	
3	左後輪胎溫 82 °C 高於胎溫過高警示設定值 80 °C，顯示板顯示的胎溫數值，並啟動警報聲"嗶"來提示使用者，按下設定鍵可暫時關閉警報聲。（請前往修配廠健檢，解決異常問題，以確保您的行車安全）	
4	胎壓無線胎壓感測發射器內的電池電量不足時，電池符號亮起。	
5	汽車電瓶電壓低於 11v，如果切換於其他模式下，則畫面右上角會閃爍電瓶符號來提示使用者。	
6	當無線胎壓監測器在超過 20 分鐘未收到其中一個感測器的訊號，監測器會顯示 E2 來通知使用者。當無現胎壓監測器在超過 20 分鐘均未收到四個無線胎壓感測器的訊號，監測器會顯示四個 E1 來通知使用者。	 

警告 當顯示 E1 或 E2 時，可能附近有強烈的無線訊號干擾或請送回經銷商檢修。

系統設定輪胎更換位置方式

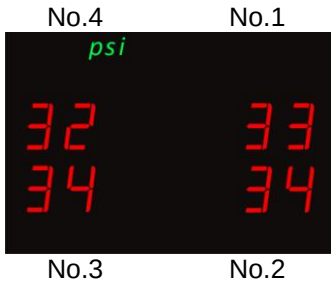
當汽車行駛一段里程後，可能需要更換輪胎位置以延長輪胎使用壽命。此時由於胎壓無線胎壓感測發射器為無線訊號傳輸設備，系統可做下列操作步驟進行重新設定，以確保輪胎位置與無線胎壓監測器顯示位置相同。

TPMS 無線胎壓監測系提供三種不同輪胎更換模式和一個任意的交換位置模式，另外一個單一無線胎壓感測發射器的更換模式。

本產品具備 Orange Tire Orientation (OTO ，Orange 輪胎自動定位技術)，當汽車更換輪胎位置或更換成新的發射機後，車輛只需行駛一段時間，即可自動完成調胎後或更換成新的發射機所需的重新設定操作程序，免除相關重新設定的煩瑣操作。

Mode 1：前輪和後輪互換
Mode 2：輪胎對角線互換
Mode 3：前輪對角線更換至後輪，後輪平行更換至前輪
Mode 4：任意更換輪胎
Mode 5：單一無線胎壓感測發射器更換

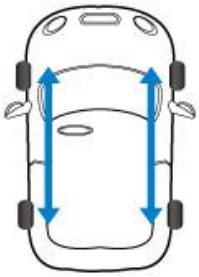
No.1 → 前方右輪
No.2 → 後方右輪
No.3 → 後方左輪
No.4 → 前方左輪



警告

1.進行輪胎自動位置更換模式期間，若將無線胎壓監測器電源關閉會導致系統設定失敗，但再重新供電後仍會依上一次的設定繼續進行輪胎監測。
2.系統設定完成後，請先測試系統是否皆能正常接收 4 個輪胎的訊息，倘若無法順利接收時，則需要確認依照步驟再重新設定(此時可採用進入輪胎更換模式中的模式五，進行單一輪更換動作)。

Mode 1：前輪和後輪互換

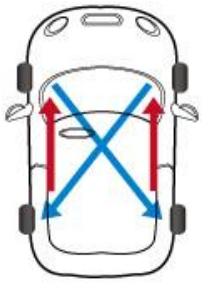


步驟	操作流程	圖示
1	更換輪胎前輪至後輪，後輪至前輪。為防止錯誤安裝輪胎位置，請標示記號。	
2	同時按住設定鍵及功能鍵 5 秒鐘，此時顯示板會紅色閃爍跳動之後會有"嗶"聲響後，系統則會自動進入輪胎位置變更設定模式，使用者可以放開按鈕系統將會進入選擇模式一。	**【Function】Key** **【Set】Key**
3	3-1 在選擇模式一等待約 2 秒鐘系統自動進入模式一。 3-2 LED 燈上的數字代表的是輪胎的編號，畫面①與③表示該輪胎未改變前位置，畫面②與④則表示該輪胎改變後位置。 3-3 操作只需要按住設定鍵約 3 秒鐘之後聽到"嗶一聲"，這表示模式一已經互換四個輪胎的位置，系統將自動回到監控狀態。	  ①  ②  ③  ④

Mode 2：輪胎對角線互換

步驟	操作流程	圖示
1	將輪胎對角線互換，為防止錯誤安裝輪胎位置，請標示記號。	
2	同時按住設定鍵及功能鍵 5 秒鐘，此時顯示板會紅色閃爍跳動之後會有"嗶"聲響後，系統則會自動進入輪胎位置變更設定模式，使用者可以放開按鈕系統將會選擇模式一，接著在按一下功能鍵 系統切換到選擇模式二。	**【Function】Key** **【Set】Key**
3	3-1 在選擇模式二等待約 2 秒鐘系統自動進入模式二。 3-2 LED 燈上的數字代表的是輪胎的編號，畫面①與③表示該輪胎未改變前位置，畫面②與④則表示該輪胎改變後位置。 3-3 操作只需要按住設定鍵約 3 秒鐘之後聽到"嗶一聲"，這表示模式一已經互換四個輪胎的位置，系統將自動回到監控狀態。	  ①  ②  ③  ④

Mode 3：前輪對角線更換至後輪，後輪平行更換至前輪



步驟	操作流程	圖示
1	將前輪胎對角線更換至後輪，後輪平行更換至前輪，為防止錯誤安裝輪胎位置，請標示記號。	
2	同時按住設定鍵及功能鍵 5 秒鐘，此時顯示板會紅色閃爍跳動之後會有"嗶"聲響後，系統則會自動進入輪胎位置變更設定模式，使用者可以放開按鈕系統將會進入選擇模式一，接著再按二下功能鍵 系統切換到選擇模式三。	**【Function】Key** **【Set】Key**
3	3-1 在選擇模式三等待約 2 秒鐘系統自動進入模式三。 3-2 LED 燈上的數字代表的是輪胎的編號，畫面①與③表示該輪胎未改變前位置，畫面②與④則表示該輪胎改變後置。 3-3 操作只需要按住設定鍵約 3 秒鐘之後聽到"嗶一聲"，這表示模式三已經互換四個輪胎的位置，系統將自動回到監控狀態。	  ①  ②  ③  ④

Mode 4：任意更換輪胎位置

步驟	操作流程	圖示
1	輪胎保修廠會檢查輪胎並更換至適當的位置。	
2	同時按住設定鍵及功能鍵 5 秒鐘，此時顯示板會紅色閃爍跳動之後會有”嗶”聲響後，系統則會自動進入輪胎位置變更設定模式，使用者可以放開按鈕系統將會進入選擇模式一，接著再按三下功能鍵 系統切換到選擇模式四。	**【Function】Key** **【Set】Key**
3	3-1 在選擇模式四等待約 2 秒鐘系統自動進入模式四。 3-2 進入模式四 LED 燈上的數字會停留在”1”(代表輪胎的編號)，請將輪胎 No.1 洩壓至胎壓過低警告值設定(依使用者設定標準胎壓值換算，廠內設定為 27psi)，當顯示板接收到輪胎 No.1 會發”嗶、嗶、嗶...”聲響，然後將輪胎充氣到大於胎壓過低警告值設定，此時”嗶、嗶、嗶...”聲會自動關閉。 3-3 上述動作完成後，模式四 LED 燈上的數字會從”1”自動變換到”2”。	    
4	重複 3-2 的步驟完成輪胎 2 至輪胎 4，系統將自動回到監控狀態，並重新開始接收胎壓的訊號。	

Mode 5：單一無線胎壓感測發射器更換

步驟	操作流程	圖示
1	拆除損壞的無線胎壓感測發射器並替換成新的無線胎壓感測發射器。(如果在模式四操作之下，您只是檢查訊號問題，無須拆除無線胎壓感測發射器)	
2	同時按住設定鍵及功能鍵 5 秒鐘，此時顯示板會紅色閃爍跳動之後會有"嗶"聲響後，系統則會自動進入輪胎位置變更設定模式，使用者可以放開按鈕系統將會進入選擇模式一，接著再按四下功能鍵 系統切換到選擇模式五。	**【Function】Key** **【Set】Key**
3	3-1 在選擇模式五等待約 2 秒鐘系統自動進入模式五。 3-2 按壓設定鍵可選擇已替換新的無線胎壓感測發射器的輪胎，LED 燈會以 1、2、3、4 來表示輪胎的選擇。 3-3 當輪胎 No.1 需要更換無線胎壓感測發射器時，將輪胎 No.1 洩壓至胎壓過低警告值設定(依使用者設定標準胎壓值換算，廠內設定為 27psi)，當顯示板接收到輪胎 No.1 會發"嗶、嗶、嗶..."聲響，然後將輪胎充氣到大於胎壓過低警告值設定，此時"嗶、嗶、嗶..."聲會自動關閉。	    
4	上述操作完成後，系統將自動回到監控狀態，並重新開始接收胎壓的訊號。	

附錄 1

符號及專業用語說明

kPa	輪胎壓力單位：每平方單位之公斤壓力指數
psi	輪胎壓力單位：每平方英吋之英鎊壓力指數
bar	輪胎壓力單位：每平方單位之 0.01 公斤壓力指數
˚C	攝氏溫度讀取單位
°F	華氏溫度讀取單位
輪胎充氣的環境溫度	建議車廠之輪胎充氣的環境溫度為 25˚C / 77 °F。
胎壓過低警告	當輪胎壓力低於胎壓過低警告值時(初始設定值 27psi)，本系統會有視覺及聽覺之警告提醒駕駛者。
胎壓過高警告	當輪胎壓力高於胎壓過高警告值時(初始設定值 51psi)，本系統會有視覺及聽覺之警告提醒駕駛者。
胎溫過高警告	當輪胎溫度高於胎溫過高警告值時(初始設定值 80˚C)，本系統會有視覺及聽覺之警告提醒駕駛者。
無線胎壓監測器	該無線胎壓監測器為電子產品內含無線電接收晶片、微處理器、顯示裝置與警告喇叭。
無線胎壓感測發射器	該無線胎壓感測發射器為微電子產品需安裝於輪胎內部，感測晶片會將輪胎內的壓力及溫度值以無線訊號傳輸方式傳送至無線胎壓監測器顯示。

附錄2

kPa , psi, bar 胎壓單位轉換表

kPa	psi	bar	kPa	psi	bar	kPa	psi	bar
10	1	0.1	210	30	2.1	410	59	4.1
20	3	0.2	220	32	2.2	420	61	4.2
30	4	0.3	230	33	2.3	430	62	4.3
40	6	0.4	240	35	2.4	440	64	4.4
50	7	0.5	250	36	2.5	450	65	4.5
60	9	0.6	260	38	2.6	460	67	4.6
70	10	0.7	270	39	2.7	470	68	4.7
80	12	0.8	280	41	2.8	480	70	4.8
90	13	0.9	290	42	2.9	490	71	4.9
100	15	1	300	44	3.0	500	73	5
110	16	1.1	310	45	3.1	510	74	5.1
120	17	1.2	320	46	3.2	520	75	5.2
130	19	1.3	330	48	3.3	530	77	5.3
140	20	1.4	340	49	3.4	540	78	5.4
150	22	1.5	350	51	3.5	550	80	5.5
160	23	1.6	360	52	3.6	560	81	5.6
170	25	1.7	370	54	3.7	570	83	5.7
180	26	1.8	380	55	3.8	580	84	5.8
190	28	1.9	390	57	3.9	590	86	5.9
200	29	2	400	58	4.0	600	87	6

°C / °F 溫度單位轉換表					
°C	°F	°C	°F	°C	°F
-40	-40	20	68	80	176
-30	-22	30	86	90	194
-20	-4	40	104	100	212
-10	14	50	122	110	230
0	32	60	140	120	248
10	50	70	158	125	257

系統保固

本系統將自購買日起開始計算提供一年(365 日)的產品免費保固，以提供客戶購買權益及 TPMS 的產品質量保証。該保固期間，若產品在正常操作使用狀況下(人為或意外或無法抗拒的天然災害所造成的損壞，將不列入以下保固範圍)出現質量不良的問題，本公司將免費提供替換品或修復不良品讓客戶取得質量保障以表示本公司對產品質量的負責態度。
保固範圍包含”無線胎壓監測器,無線胎壓感測發射器和電源連接線”，其餘配件皆屬消耗品不在保固範圍內。
注意：欲將已在使用中的無線胎壓感測發射器安裝到另一輪胎及更換無線胎壓感測發射器時，建議將所有氣嘴和螺絲全面換新。

但是本保固政策須符合下列條件：

1. 客戶必須將損壞不良品提供至原始購買代理商，以確認不良品發生原因及購買日期。
2. 產品必須依照本操作手冊進行正常操作使用。
3. 產品必須有加蓋經銷商確認保固章之保固卡。
4. 產品不得自行拆解。
5. 產品損壞原因並非本公司原廠出品之不良品(意外或人為因素損壞或組裝未依照標準程序或未經合格供應商而自行安裝或天然不可抗拒之天然因素所造成的故障品將不列入本公司產品保固範圍內)。

警告!!!

1. 更換無線胎壓感測發射器必須只能使用 TPMS 感測器 (可以從代理商購買)，不能使用其他品牌的無線胎壓感測發射器替代件，使用其他品牌的感應器替代件會造成收接失敗並且會使保固無效。

2. 本產品之電源連接線不得用於其它產品，亦不支援 USB 介面，請勿連接至任何 USB 裝置，以免發生故障。

異常排除

情況一、接收顯示面版上的數字缺亮、顯示異常或無任何資訊

1. 電源線與接收顯示面版並無完全連接
排除方法：重新連接電源線並確認連接完全，以及檢查車上點煙座有無供電；或點煙分享器是否正常運作。
2. 電源線損壞
排除方法：更換新的電源線。
3. 車上電瓶電壓供電不足
排除方法：檢查電瓶的儲存能力，如電瓶電壓始終低於 9V，建議至該汽車原廠或維修服務中心進行檢查維修。
4. 接收顯示面版之 LED 或內部電路故障損壞
排除方法：將損壞的接收顯示面版送回【原安裝據點】或【各區代理經銷商】檢修，並以模式 4 重新學碼四輪的感測器 ID。
5. 接收顯示面版內保險絲燒毀
排除方法：將損壞的接收顯示面版送回【原安裝據點】或【各區代理經銷商】檢修，並以模式 4 重新學碼四輪的感測器 ID。

情況二、接收顯示面版上的按鍵無作用

1. 接收顯示面版內部電路故障損壞
排除方法：將損壞的接收顯示面版送回【原安裝據點】或【各區代理經銷商】檢修，並以模式 4 重新學碼四輪的感測器 ID。

情況三、接收顯示面版顯示 E2(表示任一、二或三輪訊號接收失敗)

1. 車上有其他電子設備的干擾訊號
排除方法：先將車內其他電子設備電源移除，判斷是否為其他干擾訊號造成。
2. 該輪的 ID 設定錯誤
排除方法：以模式 5 重新學碼 E2 對應輪胎內之感測器 ID。
3. 該輪發射器異常故障
排除方法：以模式 5 重新學碼 E2 對應輪胎內之感測器 ID，若接收器仍無訊號顯示，將感測器送回【原安裝據點】或【各區代理經銷商】檢修。

情況四、接收顯示面版顯示 E1(表示四輪訊號全部接收失敗)

1. 車上有其他電子設備的干擾訊號
排除方法：先將車內其他電子設備電源移除，判斷是否為其他干擾訊號造成。
2. 接收顯示面版內接收器電路故障損壞
排除方法：將損壞的接收顯示面版送回【原安裝據點】或【各區代理經銷商】檢修，並以模式 4 重新學碼四輪的感測器 ID。

情況五、接收顯示面版蜂鳴器無聲音輸出

1. 接收顯示面版內內部蜂鳴器故障損壞
排除方法：將損壞的接收顯示面版送回【原安裝據點】或【各區代理經銷商】檢修，並以模式 4 重新學碼四輪的感測器 ID。

情況六、接收顯示面版上的壓力或溫度顯示位置錯誤

1. 四個輪胎 ID 設定錯誤
排除方法：以模式 4 或模式 5 重新學碼四輪的感測器 ID。
2. 輪胎檢修對調後，無同步設定感測器 ID 對調
排除方法：以模式 4 或模式 5 重新學碼四輪的感測器 ID。

◎關於任何其它產品問題可直接洽詢**【原安裝據點】**或**【各區代理經銷商】**。

關於 TPMS 無線胎壓監測系統最新訊息，可至 Orange 公司網站觀看。

最後，感謝您的支持與購買 TPMS 無線胎壓監測系統，並預祝您行車安全。

製造商:
Orange Electronic Co., LTD
www.orange-electronic.com
台中市中部科學工業園區科雅路 29 號 5 樓
電話 : 04-2560-2766　客服專線 : 0800-351-558
◎產品建議客服 service@orange-electronic.com

To ensure correct operation and service please read these instructions before installing and operating the TPMS

MAXXIS M168+ TPMS Manual

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To ensure correct operation and service please read these instructions before installing and operating the TPMS

Tire Pressure Monitoring Systems, TPMS

Tire Pressure Monitoring Systems (TPMS) improves safety while driving. Once installed in your vehicle, the system will automatically monitor your tires in real-time for pressure and temperature. When any tire's pressure and/or temperature appear abnormal, the system will, in real-time, transmit signals to active an alarm and show a digital figure to warn the driver of a problem. The system aids safety, can extend the tire life and help reduce fuel consumption.

NOTICE

FCC Notice

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the factoring measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected

Caution: Any changes or modifications in construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To comply with the FCC RF exposure compliance requirements, this device and its antenna must not be co-located or operating to conjunction with any other antenna or transmitter.

System Scope of Use and Warnings

Tire Pressure Monitoring System, TPMS

This system is a sensing device designed to measure and display tire operation and / or activate an alert to the driver when pressure and temperature irregularities are detected. It is the responsibility of the driver to react promptly and with discretion to alerts. Abnormal tire inflation pressure should be corrected at the earliest opportunity.

Caution: The system is wireless RF product; therefore, it may not receive signal due to interference environment or incorrect operating or installation. When the system continually cannot receive signal from one of the tire sensor more than 20 minutes since the system be switched on, the system will show " E2 ". In this case, it may cause by a RF interference environment and driver needs to drive the vehicle to other place. If the display still cannot receive any correct signal from tire sensor, then, driver needs to find a nearby qualified tire maintain service for checking and maintain. It may cause by a tire sensor damaged or battery power consumption is low (the battery consumption will be lower than under normal using condition due to sensors need to send warning signal continually to driver) . If the system continually cannot receive signal from any sensors more than 20 minutes, the system might damaged and will show "E1". Driver needs to drive to other place (there might be a interference nearby) or send the system to agent for repair

∗System Installation and Usage

Use of the TPMS requires that qualified personnel according to the instructions here have properly installed it. This system is suitable for use on a passenger car, SUV and 4X4 tires, with up to maximum cold inflation pressure of 74 Psi (Gauge), below instruction is Gauge value mentioned.

∗Reacting to Alerts

When an alert or warning is received, reduce vehicle's speed and proceed to a safe location to stop where the tire can be inspected and /or serviced.

The low-pressure alert indicates that the air pressure has dropped to a selected minimum and a high-temperature alert indicates that the temperature of the tire content has surpassed the threshold value set. When the battery voltage icon flash, it means the battery voltage of vehicle is below battery voltage default (11v).

∗Use of Chemicals

Temporary resealing or re-inflation products containing internal sealants or propellants in any tire assembly may adversely affect the operation of the sensor/transmitter.

Specifications of TPMS

RECEIVER SPECIFICATIONS	
Operating voltage	12V DC
Operating current	< 200mA
Storage temperature	-30°C to 75°C
Operating temperature	-25°C to 75°C
SENSOR AND TRANSMITTER SPECIFICATIONS	
Storage temperature	-40°C to 125°C
Operating temperature	-40°C to 125°C
Operating humidity	Max 95%
Operating frequency	433.92MHz ± 50kHz
Pressure monitoring range	0~74 psi
Pressure reading accuracy	At Normal condition ± 1psi at normal pressure range
Temperature reading accuracy	± 4°C in normal environmental condition
Transmission power	Max 75 dBμV/m
Battery	3V
Sensor weight	28g ±3g

System Installation

There are two parts of system installation

3. Setting up the display unit in the vehicle
4. Installing the transmitter unit sensor in each tire.

We strongly suggest installing the display unit first, and then install the tire transmitters.

Note: Warranty including “Wireless Display Unit and Wireless Transmitter Sensor and Power Connection cable”, not including other accessories.

When remove transmitter sensors to different tires and replace new transmitter sensors, suggest to change all of the valve steams and screws.

Accessories for Tire Pressure Monitoring System

NO.	Accessory Name	Quantity
A	Wireless Receiver and Display Unit	1
B	Velcro for Display	2
C	Power Connection for Cigarette Lighter	1
D	Wireless Transmitter Sensor (Remote Sensing Module)	4
E	Tire Valves	4
F	Screw for Tire Valves (Nylok screw)	4
G	Magnetic windshield holder	1
	Manual	1

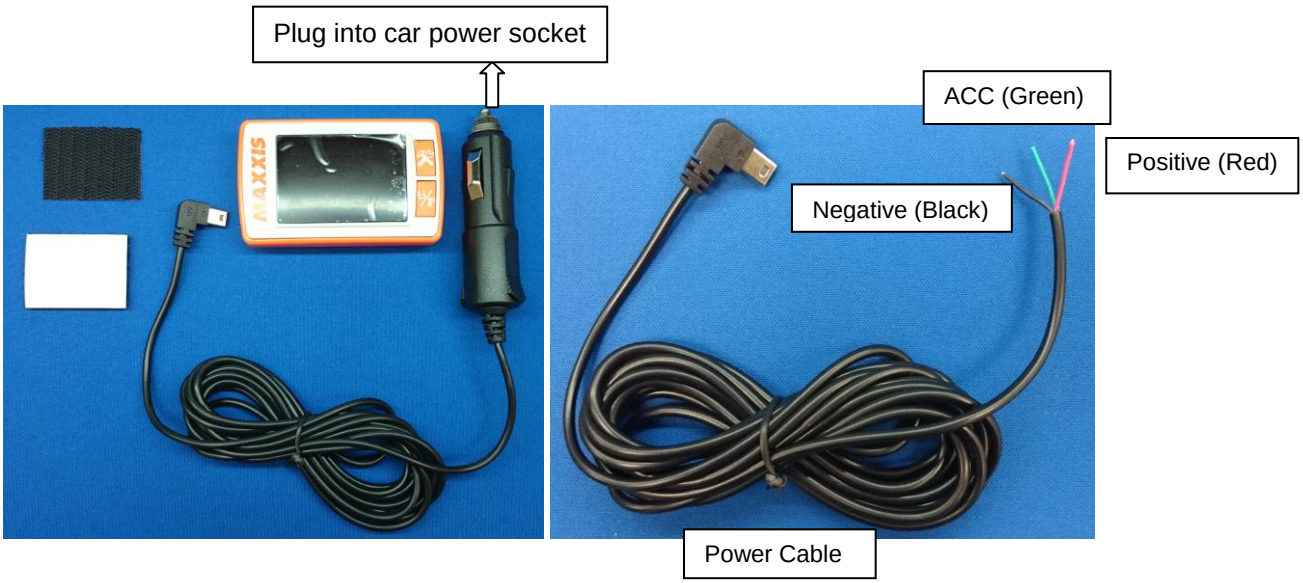
Caution: the power connection is NOT COMPATABLE with USB interface; please do not plug in any USB devices.

Display Unit Installation

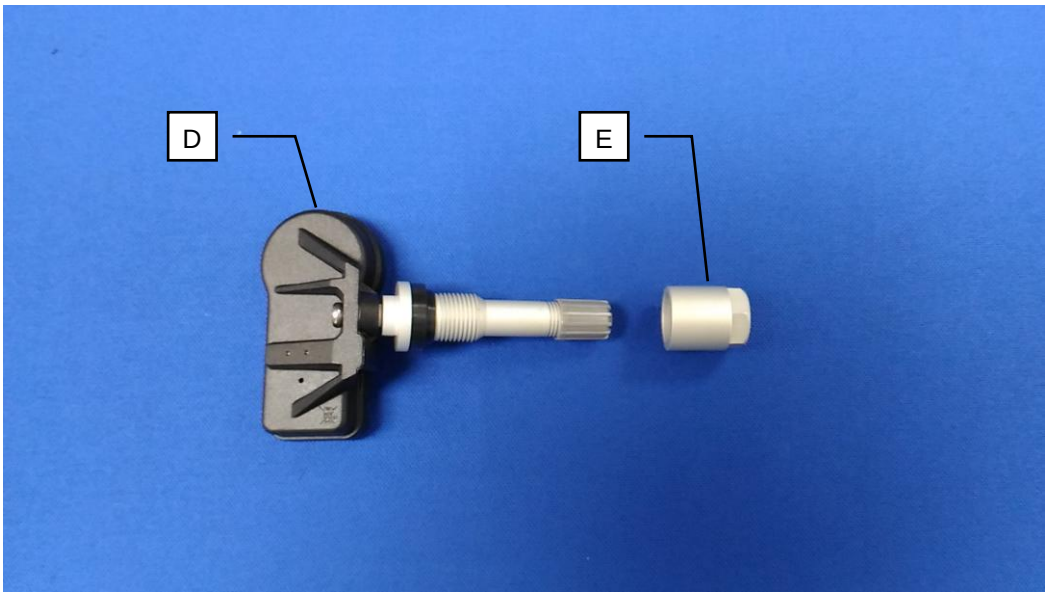
1. Plug in one side of C the power cable connection into A the display located on the side.
2. Connect the power cable into the vehicle's cigarette lighter socket for power connection.
   (or cut the cigar jet. plug the power cable with ACC, Positive, Negative into fuse box)

Note: Plugging the power cable with ACC, Positive, Negative into fuse box, the LED light will turn on only when ACC is on and the LED light will be off when ACC is turned off.

3. Install the display unit in front of driver at an appropriate position.
   Stick the Velcro B into the bottom of the display unit A, and Stick the unit into the convenient place.
4. After set up the monitor please take off the protection film from the panel of monitor.



Wireless Transmitter Sensor Installation



Step	Operation Process	Photograph
1	Use a jack to raise the vehicle and place jack stands underneath the vehicle for safety. Refer to vehicle owner's manual for full service advice. Seek the assistance of a qualified motor mechanic if required.	
2	Take off the tires and bleed the air. Then take off the air valve of the tire from the wheel. (NOTE: You must change the valve to TPMS valve). This part of the process will normally require the service of a tire fitting service or mechanic.	
3	Recognize the number on each sensor (D) with position of tire on the vehicle. (VERY IMPORTANT) **e. RF – 1 = Right Front, No. 1** **f. RR – 2 = Right Rear, No. 2** **g. LR – 3 = Left Rear, No. 3** **h. LF – 4 = Left Front, No. 4**	
4	Set up the new TPMS special valve (E) in the wheel. Use wrench to fix the valve, and then tighten nut to 40~45kgf-cm (4~4.5Nm).	
5	Use the new TPMS special Nylok screw (F) to tighten the transmitter sensor into the valve on the wheel. Torque value must be 40~45kgf-cm (4~4.5Nm).	

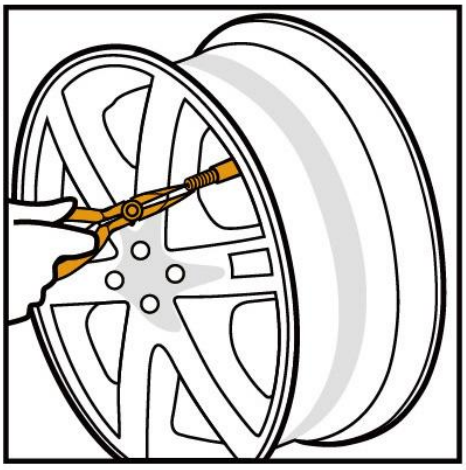
6	**Inflate the tires**. Balance the tire d. Balance tires using a balance machine e. A lead tire weight may need to be added for balancing. f. Balance until the tire balance shows balance as "**OK**" The Steps above will require the assistance of a tire fitting service or a mechanic. It is important that the wheels are balanced after the fitting of the TPMS sensors in order to ensure the safe operation of the tire when refitted to the vehicle. ◦	  
7	Set up the other three tires in the same manner.	
8	Turn the ignition key of the vehicle until the power is activated on the cigar lighter, this may be first or second position depending on the car manufacturer. The in-car display will be activated. The function button of the display unit can be switched to pressure or temperature depending on the customer's need.	

1

Jack up the car and de-mount the tire.

使用千斤頂將車體提高

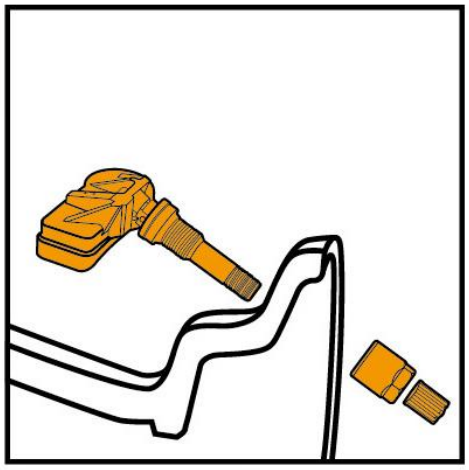
2



Remove original valve.

取出原氣嘴,小心清理殘留物

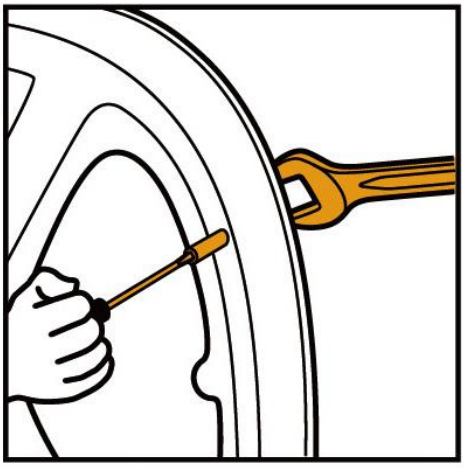
3



Sensor Assemble

無線胎壓傳感器安裝

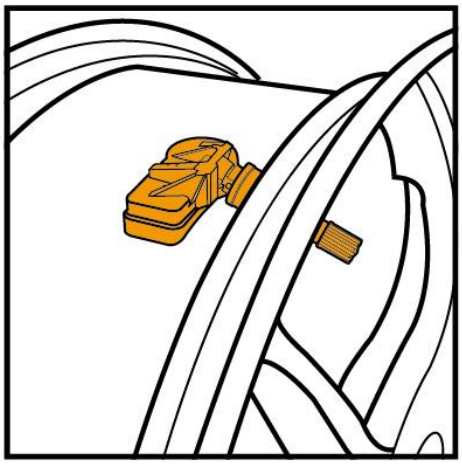
4



Tighten the valve by wrench and screw it (Torque value must be ≧ 4Nm)

使用扳手固定氣嘴,再鎖緊螺帽
(鎖附扭力要≧4Nm)

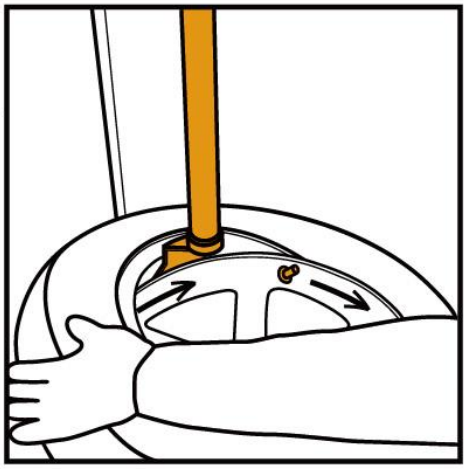
5



Tighten up screw

先調整無線傳感器的角度並盡量貼附於鋁鋼圈上, 再鎖緊固定

6



Install the tire from left side of the valve clockwise direction, avoid tire bead hits valve and sensor.

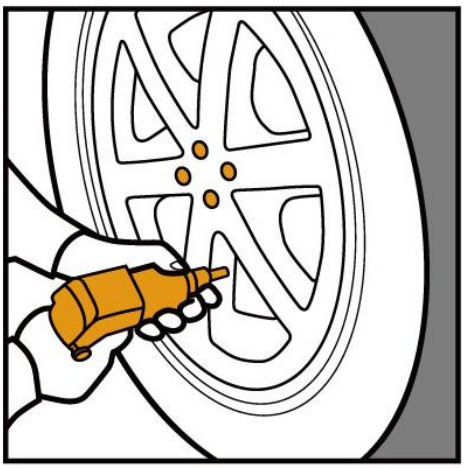
安裝輪胎,從氣嘴的左側為起始點,務必避開傳感器及氣嘴,以避免破壞傳感器

7

Balance the tire.

輪胎平衡矯正,可能需要加放鉛塊,直到輪胎平衡機顯示” 平衡OK”

8



Mount the tire to it’s position.

依照輪胎位置將已裝好無線傳感器之輪胎分別裝回原位

System Operation

After the system is installed, it will automatically monitor the tire pressure and temperature. Once the ignition is turned on, and the vehicle is in motion, the display will show the real-time tire pressure and temperature individually.

System Alarm

The alarm system will start, if tire pressure is too low, and if tire temperature is too high, the alarm system will start too, and tire pressure will show on display. If high tire temperature and low tire pressure situation happen at the same time, the system will show low tire pressure at first and then show tire temperature, both of tire pressure and temperature will show on the screen for six seconds by turns.

The alarm will keep making sound till turning off alarm system or solving abnormal situation, and below the manual will explain operation process.

Setup Method

The driver can follow the steps to adjust the system of pre-loaded values

※Notice: The system has been pre-set with alert figures. If the driver wants to change the figure, then follow the professional tire technician's instruction.

Choosing preferred Pressure Units and Temperature Units

Step	Operation process	Photograph
1	By pressing the **function key**, it will switch among displaying the pressure unit, displaying the temperature unit, displaying the battery voltage, and displaying both pressure unit and temperature unit by turns. The operator can choose which one to set up first.	  
2	If the pressure unit is chosen. Press the **function key** for 3 seconds, it will switch to kPa, psi, bar in turn. Once the preferred unit is chosen release the **function key**.	  
3	If the temperature unit is chosen. Press the **function key** for 3 seconds, it will switch to ^{o}C and °F in turn. Once the preferred unit is chosen release the **function key**.	 

Standard Front/Rear Tire Pressure Setting

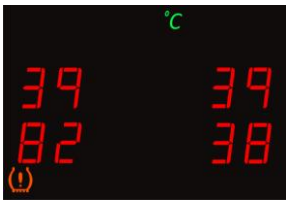
Step	Operation process	Photograph
1	Pressing the **set key** for over 3 seconds can change to the front tire standard pressure set up mode.	【Set】Key
2	The wireless receiver and *d*isplay unit will show the preset front tire standard pressure default (34 psi / 230 kPa / 2.3 bar).	
3	By pressing the **function key** once, the psi value will add 1 unit; and the unit value will return to 20 psi when it has reached 48 psi. (the kPa value will add 10 units; and the unit value will return to 140 kPa when it has reached 330kPa / the bar value will add 0.1 units; and the unit value will return to 1.4bar when it has reached 3.3 bar) The system will use this setting as the standard value for low tire pressure monitoring, which means when the tire has deflated to a pressure value lower than this setting, the system will automatically start to warn the driver.	【Function】Key
4	As for the preset standard value 34psi/230kpa for tire pressure monitoring. High tire pressure monitoring which means when tire pressure has reached 51psi or 1.5 times of the original standard value (the initial preset value is 345kPa or 3.5 bar). For low tire pressure monitoring which means when tire pressure has reached 27psi or 0.8 times of the original standard value (the initial present value is 184 kPa or 1.8bar).	
5	Press the **set key** to complete the front tire pressure warning value setup mode. The system will automatically enter the rear tire pressure set up mode.	【Set】Key
6	Set up rear tire standard pressure value by using the same steps 1~5 from front tire pressure warning value set up mode.	

Tire Over Temperature Warning

Step	Operation process	Photograph
1	After the setting operation of standard tire pressure, the systems will automatically entry the setting mode of high tire temperature.	
2	The display unit will show tire over temperature warning setup value (**the factory default value is 80°C / 176°F.**) for the tires.	

3	Press the **function key** to change the high temperature figure. The high temperature figure set up range is from 60°C to 100°C (the **°F** value will add 1 unit; and the unit value will return to 140 **°F** when it has reached 212 **°F**), the driver can continually push the **function key** to adjust the appropriate high temperature figure. When the tire temperature exceeds this setting, the system will generate the warning signals.	**【Function】Key**
4	Press the **set key** to complete the high temperature setting operation.	**【Set】Key**

Alarm Instruction

Type	Warning Description	Photograph
1	The tire pressure of RF Tire (22 psi) is below tire pressure default (27 psi), and it will active an alarm with “Beep sound” to warn the driver, press **set key** to turn off the alarm.	
2	The tire pressure of LF Tire (52 psi) is above tire pressure default (51 psi), and it will active an alarm with “Beep sound” to warn the driver, press **set key** to turn off the alarm.	
3	The tire temperature of LR Tire (82 °C) is above tire temperature default (80 °C), and it will active an alarm with “Beep sound” to warn the driver, press **set key** to turn off the alarm.	
4	The battery voltage of Sensor is under battery voltage default, which the battery check icon will illuminate.	
5	When display is not in battery monitor mode, the battery voltage icon will flash to warn the driver, when the battery voltage of vehicle is below 11V.	
6	When it lasts 20 minutes above that wireless receiver couldn’t receive one of the signal from wireless transmitter sensor, the display will show E2; E1 indicates all wireless transmitter sensor not receivable.	

Note when display unite shows E1 or E2, place any wireless devices (cell phone, etc) further away from display unit or locate a qualified tire service center to correct the issue.

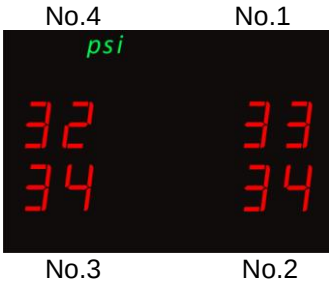
Reset for Tire Changes and Rotation

The rotation is necessary to prolong the life of your tires. The system requires resetting the tire position to ensure the transmitter sensor can indicate the right position of your tires on display unit. TPMS provides three modes of tire rotation methods and one mode for random repositioning and single sensor replacement.

The product has adopted Orange Tire Orientation (OTO).
The system will automatically reset tire position on driving for a while after tire or sensor change. OTO can efficiently help end user save time for resetting.

Mode 1: Front to Rear tires exchanged
Mode 2: Tires diagonal exchanged
Mode 3: Front tires diagonal exchanged, and Rear tires parallel exchanged to Front.
Mode 4: Random tire repositioning
Mode 5: Single sensor replaced

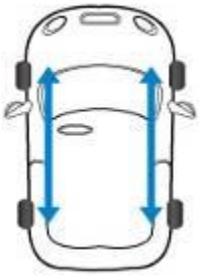
No.1 → Front-right tire
No.2 → Rear-right tire
No.3 → Rear-left tire
No.4 → Front-left tire



Warming

1. Do not turn off the vehicles power during this process. Doing so will immediately interrupt the repositioning setup process. The ignition can either be in the on or start position (At this time, enter Mode 5 to use single sensor replaced).
2. After repositioning, check the display is detecting all tire pressures correctly. If the system cannot work normally, please reset it and follow the instructions again.

Mode 1: Front to Rear tires exchanged

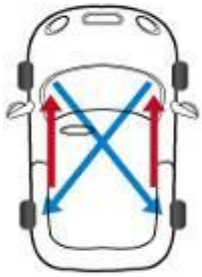


Step	Operation process	Photograph
1	Rotate the tires. Front to Rear, and Rear to Front. To prevent incorrect positioning, mark the tires.	
2	Press both the **set key** and **function key** simultaneously for 5 seconds. The display will flash red, and a "beep" sound will be heard. You can release the buttons, and the system will have entered into mode 1.	**【Function】Key** **【Set】Key**
3	3-1 After entering mode 1, the display will show "1". 3-2 Numbers show in LED lights stands for tires' ID, photograph ① and ③ means tires position before changing, photograph ② and ④ means after changing. 3-3 The operator only needs to press the **set key** for 3 second and listen for the "beep". This means that mode 1 has been chosen and will exchange all four sensors ID positions and will automatically return the monitoring status to normal.	  ①  ②  ③  ④

Mode 2：Tires diagonal exchanged

Step	Operation process	Photograph
1	Rotate the tires diagonally. To prevent from incorrect positioning, mark the tires.	
2	Press both the **set key** and **function key** simultaneously for 5 seconds. The display will flash red, and a “beep” sound will be heard. You can release the buttons, and the system has entered into mode 1. If presses **function key** again, then the system has entered into mode 2.	**【Function】Key** **【Set】Key**
3	3-1 After entering mode 2, the display will show “2”. 3-2 Numbers show in LED lights stands for tires’ ID, photograph ① and ③ means tires position before changing, photograph ② and ④ means after changing. 3-3 The operator only needs to press the **set key** for 3 second and listen for the “beep”. This means the mode 2 has been chosen and will exchange all four sensors ID positions and will automatically return the monitoring status to normal.	  ①  ②  ③  ④

Mode 3：Front tires diagonal exchanged, and Rear tires parallel changed to Front



Step	Operation process	Photograph
1	Rotate the front tires diagonally to the rear, and the rear tires parallel to the front. To prevent incorrect positioning, mark the tires.	
2	Press both the **set key** and **function key** simultaneously for 5 seconds. The display will flash red light, and a “beep” sound will be heard. You can release the buttons, and the system will have entered into mode 1. Re-press **function key** for 1 second and wait for “beep” then the LED will show “2”, re-press the **function key** you will then see “3”, the system will have entered into mode 3.	**【Function】Key** **【Set】Key**
3	3-1 After entering mode 3, the display will show “3” 3-2 Numbers show in LED lights stands for tires’ ID, photograph ① and ③ means tires position before changing, photograph ② and ④ means after changing. 3-3 The operator only needs to press the **set key** for 3 second and listen for the “beep”. This means that mode 3 has been chosen and will exchange all four sensors ID positions and will automatically return the monitoring status to normal.	  ①  ②  ③

		 ④

Mode 4：Random re-position tires

Step	Operation process	Photograph
1	The tire shop will check the tire for abrasion and rotate tires into the appropriate position.	
2	Press both the **set key** and **function key** simultaneously for 5 seconds. The display will flash red, and a “beep” sound will be heard. You can release the buttons the system will have entered into mode 1. Continue to press the function key, each time for one second and each time wait for the beep until the display shows”4”., After entering into mode 4 the LED will show “4”.	**【Function】Key** **【Set】Key**
3	3-1 It will take about two second after entering mode 4, and the display will show “4”. 3-2 When Tire No.1 needs to be reconfigured, deflate Tire No.1 once below 27 psi (tire low pressure default), and wait for the receiver to receive the signal. When tire No. 1 receives the signal, you will hear alarm “beep”. Then, start inflate the tire No.1, it will keep on “beep” till Tire No. 1 is completely inflated to normal pressure. 3-3 After finishing all the steps above. In the mode 4, the numbers will show “1” and turn to “2” automatically.	    

4	Repeat the 3-2 step above for tire No.2, No.3 and No.4 System will be back to monitoring condition automatically, and receiver start to receive signals of tire pressure & tire temperature.	

Mode 5： Single sensor replaced

Step	Operation process	Photograph
1	Take off the broken sensor and replace it with a new sensor. (if you are only checking for a signal problem from Mode 4 instructions, there is no need to take off the sensor)	
2	Press both the **set key** and **function key** simultaneously for 5 seconds. The display will flash red, and a “beep” sound will be heard. You can release the buttons, and the system will have entered into mode 1. Continue to repress the function key for four times, and then the system will switch into mode 5. ◦	**【Function】Key** **【Set】Key**
3	3-1 It will take about 2 seconds after entering mode 5, the display will show “5”	
	3-2 Press **set key** to choose tire which new sensor installed, LED will show Tire No.1 / 2 / 3 / 4.	 
	3-3 When Tire No.1 (RF Tire) needs to be replaced, deflate tire No.1 below 27 psi (tire low pressure default value) and wait for the receiver to receive the signal. When Tire No. 1 receives the signal, you will hear “beep”. Then, start inflate tire No.1, it will keep on “beep” till Tire No. 1 is completely inflated to normal pressure.	 

4	After completing all the steps above, System will be back to monitoring condition automatically.	

Appendix

Glossary

kPa	Pressure reading in Kilo Pascal
psi	Pressure reading in pound per square inch
bar	Pressure reading in bar
°C	Temperature reading in degrees Celsius
°F	Temperature reading in degrees Fahrenheit
Inflating Pressure environment	Recommended inflation pressure of a tire at ambient temperature of 25˚C / 77 °F by vehicle manufacturers.
Low Pressure Alert	Visual and audible warning, this is activated when the tire's pressure goes below the preset level. Initial low pressure alert is 27 psi
High Pressure Alert	Visual and audible warning, this is activated when the tire's pressure goes higher than the preset level. Initial High pressure alert is 51 psi
High Temperature Alert	Visual and audible warning, this is activated when the tire's temperature goes higher than the preset level. Initial High temperature alert is 80°C.
Display / Receiver Module	The electronic module mounted inside the vehicle that alerts the driver of any tire irregularities.
Sensor / Transmitter Module	The electronic module mounted on the wheels that measure the air pressure and temperature of the tire.

Annexes

Annex 1

kPa , psi, bar Conversion Table								
kPa	**psi**	**bar**	**kPa**	**psi**	**bar**	**kPa**	**psi**	**bar**
10	1	0.1	210	30	2.1	410	59	4.1
20	3	0.2	220	32	2.2	420	61	4.2
30	4	0.3	230	33	2.3	430	62	4.3
40	6	0.4	240	35	2.4	440	64	4.4
50	7	0.5	250	36	2.5	450	65	4.5
60	9	0.6	260	38	2.6	460	67	4.6
70	10	0.7	270	39	2.7	470	68	4.7
80	12	0.8	280	41	2.8	480	70	4.8
90	13	0.9	290	42	2.9	490	71	4.9
100	15	1	300	44	3.0	500	73	5
110	16	1.1	310	45	3.1	510	74	5.1
120	17	1.2	320	46	3.2	520	75	5.2
130	19	1.3	330	48	3.3	530	77	5.3
140	20	1.4	340	49	3.4	540	78	5.4
150	22	1.5	350	51	3.5	550	80	5.5
160	23	1.6	360	52	3.6	560	81	5.6
170	25	1.7	370	54	3.7	570	83	5.7
180	26	1.8	380	55	3.8	580	84	5.8
190	28	1.9	390	57	3.9	590	86	5.9
200	29	2	400	58	4.0	600	87	6

Annex 2

°C To °F and °F To °C Conversion Table					
°C	**°F**	**°C**	**°F**	**°C**	**°F**
-40	-40	20	68	80	176
-30	-22	30	86	90	194
-20	-4	40	104	100	212
-10	14	50	122	110	230
0	32	60	140	120	248
10	50	70	158	125	257

Warranty Policy

We warrant our products for one year (365 days) from the date of original purchase to be free from defects in materials and workmanship. If, during this period, the product fails under normal usage, because of a manufacturing defect, we will replace or repair the item. To obtain repair or replacement under the terms of this warranty, please return the product to the place of purchase. Proof of purchase and date of purchase are required to validate the warranty claim.
All implied warranties, including the warranty of merchantability, are limited to this same ninety-day period from date of original purchase. We are not liable for any direct or consequential loss or property damage arising from any use of this product. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.
This does not affect your statutory rights.

Note: Warranty including “Wireless Display Unit and Wireless Transmitter Sensor and Power Connection cable”, not including other accessories.
When remove transmitter sensors to different tires and replace new transmitter sensors, suggest changing all the valve steams and screws.

Warning

1. **Only use TPMS sensor replacement parts (these can be purchased from Agents). TPMS cannot use other brands of TPMS sensors for replacement parts. Using other brands will be cause failure and will void the warranty.**
2. **The power connection is NOT COMPATABLE with USB interface; please do not plug in any USB devices.**

Any questions pertaining to warranty information or other questions not answered in the preceding pages can be answered by the place of purchase or by Orange Electronic service e-mail address:

service@orange-electronic.com

For updated TPMS information and Orange products visit the Orange Electronic website:
www.orange-electronic.com

Thank you for your purchase and enjoy your TPMS!

Troubleshooting Guide

1. The receiver shows no sign or any information after its power is turned on.

1.The power cord connector is not fully contacted with the receiver
Solution: Remove the power cord and plug it into the outlet again until it is contacted completely.
2.The power cord failed
Solution：Ask your distributor to have your power cord replaced and send the defected one back to manufacturer for repair.
3. The battery is run out of power.
Solution：If the battery voltage is always lower than 9V every time you start the engine, it is recommended that the car should be brought to the service center for inspection.
4. The digits shown on the display panel become incomplete, or the light indicators become abnormal.
Solution：Send the defected receiver display back to agent for repair and reconfigure its ID using the Tire Switching Mode (Mode IV).
5. The fuse is blown in display
Solution：Send the defected receiver display back to agent for repair and reconfigure its ID using the Tire Switching Mode (Mode IV).

2. The Set button or the Conversion button has no response.

1. The inner circuits of the receiver failed
Solution：Ask your distributor to have your receiver replaced, reconfigure its ID using the Tire Switching Mode (Mode IV), and send the defected receiver back to manufacturer for repair.

3. The receiver cannot receive signal from one or some certain tires (but not all of them) after its power is turned on the numeric values representing the locations of those tires displayed on the screen become “E2”.

1. There is interference from other electronic device in the vehicle.
Solution：Remove other electronic device in the vehicle to determine if TPMS is interfered by those removed devices.
2. The IDs of those tires do not set up correctly
Solution： Ask your installation supplier to reconfigure the IDs of those tires by using the Single Sensor Replacement Mode(Mode V)
3. The transmitter of those tires failed.
Solution：Ask your distributor to have those transmitters replaced, reconfigure the IDs of those tires by using the Single Sensor Replacement Mode (Mode V), and then send the defected transmitter back to manufacturer for repair.

4. The receiver cannot receive signal from any of the four tires after its power is turned on the numeric values representing tire locations displayed on the screen all become “E1”.

1. There is interference from other electronic device in the vehicle.
Solution：Remove other electronic device in the vehicle to determine if TPMS is interfered by those removed devices.
2. The inner circuits of the display panel failed.
Solution：Ask your distributor to have your receiver replaced, reconfigure its ID using the Tire Switching Mode (Mode IV), and send the defected receiver back to manufacturer for repair.

5. The buzzer has no sound output.

1. The inner circuits of the receiver failed.
Solution：Ask your distributor to have your receiver replaced, reconfigure the IDs of the tires using the Tire Switching Mode(Mode IV),and then send the defected receiver back to manufacturer for repair

6. The pressure (or temperature)values show the wrong tire locations

1. The IDs of the four tires are not configures correctly
Solution： Ask your installation supplier to reconfigure the IDs of the tires by using the Tire Switching Mode (Mode IV or Mode V).
2. After rotating the tires, it cannot reconfigure the IDs from sensors.
Solution： Ask your installation supplier to reconfigure the IDs of the tires by using the Tire Switching Mode (Mode IV or Mode V).

◎For Orange TPMS update news, please visit our website: www.orange-electronic.com

◎For customer service: service@orange-electronic.com