Smart Hand-held TPMS Kit for Android Device

VS-63W006

Content

Warning

FCC Regulations

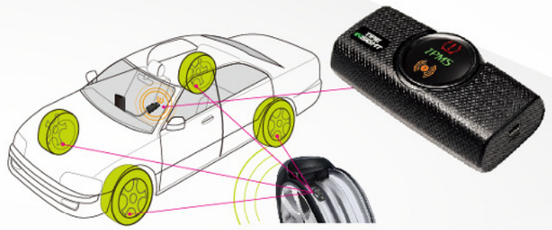
This tire pressure monitoring system has complied with Article 15 of the FCC regulatory requirements of the USA, but it needs to pay attention to the following two items:
(1) Other harmful interferences may affect normal operation.
(2) Abnormal operation may cause the system fail.

Product Warning

1. Do not operate tire pressure monitoring system (TPMS) receiver (hereinafter referred to as a receiver) and Tire Insight TPMS APP (hereinafter referred to as APP) while driving, The company is exempt from all consequences because of driver's careless and improper operation.
2. The system adopts the wireless transmission of signals. In some special environment, frequency interference or wrong operation or wrong installation may cause signal weaker or no signal. If the insulation adhesive sticker of the windshield contains metal material, it will affect signal reception. When the receiver shows abnormal warning lights and sound, or abnormal warning icons show on APP and an alarm sounds from mobile phone, please drive the vehicle away from the current location (there may be signal interference in neighborhood) or drive the vehicle to a tire shop to check, or return the TPMS receiver to distributor for repair.
3. The battery status of the TPMS sensor is low (abnormal condition exists, the battery may make the TPMS sensors continuously emit signals to warn the driver, so that battery life is shorter than expected life), please go as soon as possible to the specified service station to confirm whether the TPMS sensor need to be replaced.
4. Please change the battery while battery power is low, and change the sensor while low sensor battery warning is alarmed, it may cause the TPMS not working normally. You will take all risks and responsibilities for this!
5. Temporary resealing or re-inflation product which contain internal sealants may adversely affect the operation of the sensor. The product manufacturer does not take responsibility for this result.
6. Do not place the TPMS sensor in contact with chemicals, it would cause sensor damaged and can not function properly.
7. When related parts of the receiver need to be replaced, make sure that the service technician uses the specified replacement parts, it may affect the normal operation of the system by using unauthorized replacement parts.

Chapter 1 Product Induction

1-1 Product introduction



It has the flexibility for product usage. When it completes all tire pressure monitoring sensors installation, and completes setup for the receiver, then

1. You could use receiver alone without connecting smart hand-held devices, the receiver can receive all tire pressure and tire temperature data, the receiver itself would alarms the warning light and sound when abnormal condition is happened.
2. You could use smartphone (Android 4.0 +) and pad (Android 3.1 +) installed APP, and connect the receiver. You could get tire pressure and tire temperature data from APP.
3. When your smartphone is connected with receiver, the receiver will charge your phone at the same time.

1-2 Product Accessory List

No	Part Name	Q'ty
1	Receiver	1
2	USB cable	1
3	Cigarette lighter	1
4	TMPS sensor	1
5	Sensor kit (valve and screw included)	1
6	Sensor body	1
7	Valve	1
8	Screw	1
9	Quick Installation Guide of TPMS sensor	1
10	Quick Installation Guide of Smart hand-held TPMS Kit for Android Device	1

1-3 Product Specification

receiver		Tire Pressure Sensor	
Item	Specification	Item	Specification
Power Supply	5V DC	Operating Temperature	-40°C to +105°C
Current Consumption	Normal condition: 27mA±10%	Storage Temperature	-40°C to +125°C
Operating Temperature Range	-40℃ to 85℃	Operating Frequency	433.92MHz
Dimension	88.3X46.6X24mm	Error Value of Tire Pressure Reading	±1 psi (±7KPa) under normal operating condition
Weight	48.5g±1.5g	Error Value of Temperature Reading	±3°C at -20 to 70°C
Tire Pressure Monitoring Range	0 to 90 psi (0 to 630 KPa)	Transmission Power	Typical 5 dBm
		Battery Capacity	Lithium Battery 3.0V
Tire Temperature Monitoring Range	-40℃ to 125℃	Weight of Sensor	32g ±2g

Chapter 2 Product Operation Instruction

2-1 Introduction to Tire Insight TPMS APP

Caution:

1. Please download "TIRE INSIGHT TPMS APP" from Google Play if you desire to use a smart hand-held device (including smart phone or tablet computer) before using this product.
2. The APP is supported on the model above Pad-Android 3.0 / Smartphone -Android 4.0. Please visit Tire Insight website (http://www.cubautoparts.com/infor-support-en.php) to query the models of smart hand-held devices that have been supported by the system.

Introduction to the Screen

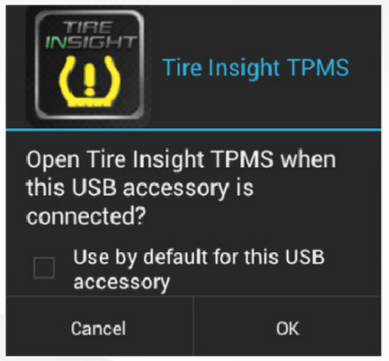
After APP has been installed and opened on your mobile phone, the system connected with the smart hand-held device (referred to as the system hereinafter) will detect the connection of receiver automatically:

If APP is opened as the receiver has not yet been connected, a gray scale display will be shown on the screen and the receiver displays a disconnection icon (as shown in the figure below), and no function is available.

If APP is opened as the receiver has not yet been connected, a gray scale display will be shown on the screen and the receiver displays a disconnection icon (as shown in the figure below), and no function is available.

If APP is opened as the receiver is in connection, then

1. Step 1: a query screen as the left figure will be shown by the system.



- If you check "Use this USB Accessory by Default" and select "OK" to save the setting, the system will execute APP automatically whenever the receiver is connected to the mobile phone after that.
- If you uncheck "Use this USB Accessory by Original Default" and select "OK", the system will query the above message every time the receiver is connected to the mobile phone after that.
- If "Cancel" is selected, the system ends without executing APP.

Note: The screen and operation depend on mobile phone model.

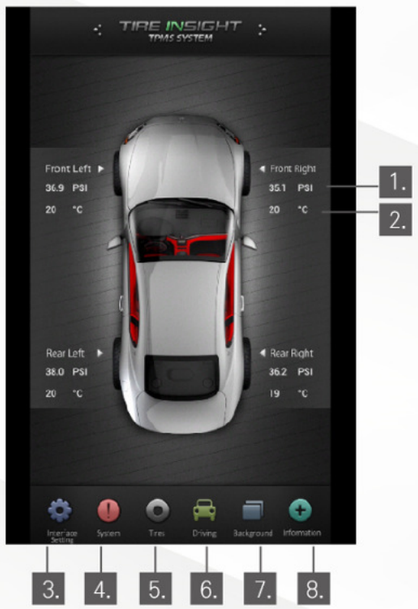
2.Step 2: After APP is executed, the screen as Figure 1 below is entered automatically, followed by the screen as Figure 2 below with respect to the description of "TPMS Notes", as shown in the left figure. The operation screen of Driving Mode will be introduced automatically by APP as you click "OK".

Figure 1

Figure 2

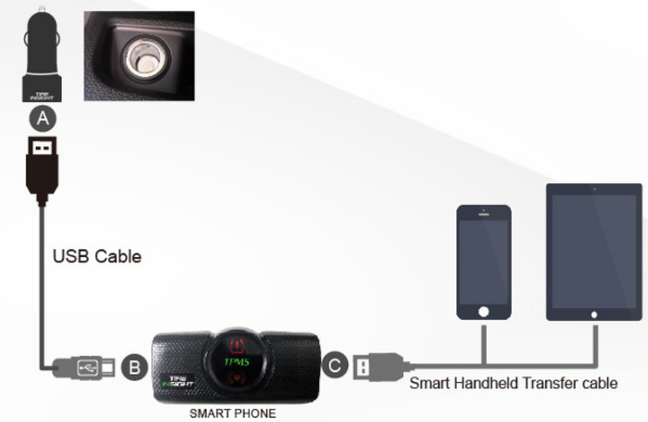
If your smart device fails to detect, connect USB, the following screen will show. Click "OK" key, followed by removing and reinserting the USB at the smart hand-held device end. Repeat the process above. Connect USB to execute APP.

APP will close automatically if you remove USB line or cut off the connection with the receiver in executing APP.



1. Tire Pressure Display (kPa, psi, Bar)
2. Tire Temperature Display (℃,℉)
3. Interface Setting
4. System Setting
5. Tire Setting
6. Driving Mode
7. Background Mode (Background)
8. More Information (Information)

2-2 Receiver Installation



Installation steps as below：

1. Make receiver and cigarette lighter connected with USB cable, and plug the cigarette lighter to socket on the car.
2. Connect smart hand-held device (smart phone/pad) with smart hand-held transfer cable.
3. Enable APP.

Remind: It is recommended to unplug the cigarette lighter when ignition off, to avoid power consumption on cigarette lighter.

2-3 Tire Pressure Monitoring Sensor Installation

Sensor accessories

1. Screw	2. TPMS sensor	3. Valve and rubber washer
4. Washer	5. Nut	6. Valve Cap

Installation Location on the Rim

Please follow the label on the sensor, install the sensor into the rims accordingly, it could skip the "ID Learning" steps for each sensor! (See ID Learning in detail in user manual)

Installation Step

Fig 1. Loosen the tire. Fix both sides of the tire and press, and make it bulge.

Fig 2. Remove the tire. The valve faces the mounting arm in the one o'clock direction, remove the tire.

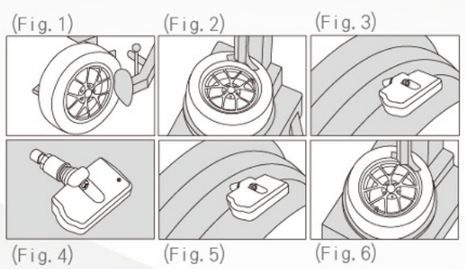
Fig 3. Remove the sensor. Loosen the fixing screw, allow the sensor separate from the valve, and release the nut to take it apart from the valve.

Fig 4. Install the sensor and valve. Insert the valve through the rim hole, fix the screw to secure the valve and sensor by 2 Nm in torque, attach the sensor body to the inner surface of the rim by adjusting the angle of the sensor body.

Fig 5. Install valve to the rim hole. Guide the washer into the valve, and fix the nut by 4 Nm in torque, then tighten the cap.

Fig 6. Mount the tire. Grip the rim edge, and the valve is opposite to the mounting arm, avoid hitting the sensor during arm operation.

Note: After installation, recalibrate the rim set on balance machine to avoid shaking during driving.

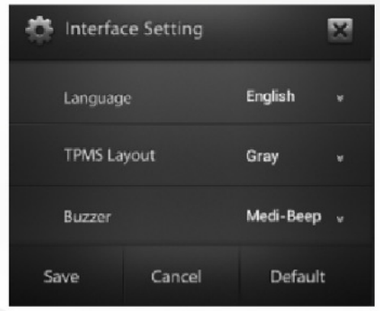


Driving Identification

After you install the sensor according to the tire location marked on the sensor, and install the receiver and APP by following above instruction, please drive your car and turn on the system with car speed above 20 km or driving over 10 minutes. Make sure that the receiver receives signals from all sensors.

Chapter 3 Introduction to Functions of Tire Insight TPMS APP

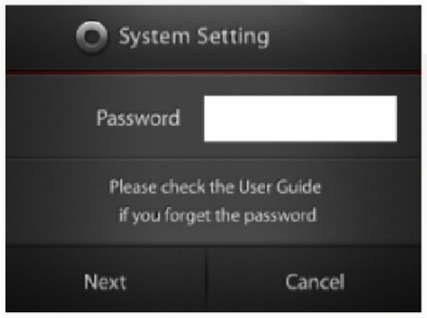
3-1 Interface Setting



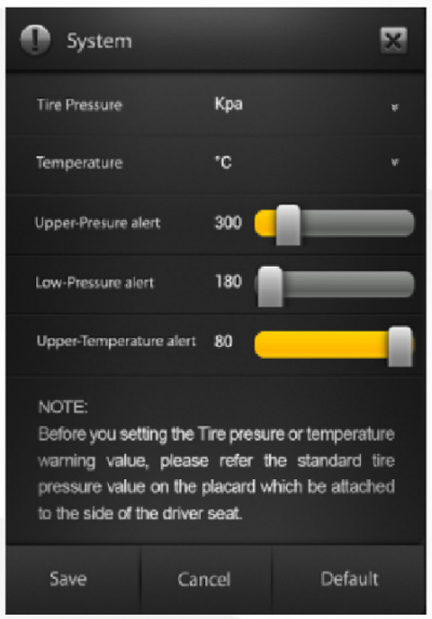
1. Languages: 4 languages are supported, including traditional Chinese, simplified Chinese, English and Japanese. The default setting is traditional Chinese.
2. Driving Mode type: the default setting is gray type.

3. Alert Sound switch (Buzzer): the alert sound may be selected by users themselves. After all settings are finished, click Save to store them. If you desire to restore all settings to default values, please click Default for change to default values.

3-2 System Setting



Before clicking System Setting, please enter matching code ”2231”. If no error is identified, press Next



1. Setting for Tire Pressure Unit (Tire Pressure): there are three units for choice, including kPa, psi and Bar.
2. Setting for Tire Temperature Unit (Temperature): there are two units for choice, including ℃ and ℉.
3. Maximum Alert Tire Pressure (Upper-Pressure Alert): the maximum alert tire pressure is the tire pressure which induces alert by the system as the tire value exceeds set tire pressure to remind the driver. The value in the setting range will be converted automatically according to the unit selected in "Setting for Tire Pressure Unit". The default value is "300kPa".
4. Minimum Alert Tire Pressure (Low-Pressure Alert): is the tire pressure which induces alert by the system as the tire pressure is lower than the set value to remind the driver. The value in the setting range will be converted automatically according to the unit selected in "Setting for Tire Pressure Unit". The default value is "180kPa".

The settings of the Maximum and Minimum Alert Tire Pressures for each Tire Pressure unit are as shown in the following table:

Tire Pressure Unit	Setting Range of the Maximum Alert Tire Pressure	Setting Range of the Minimum Alert Tire Pressure
KPa	280 ~ 420 KPa	180 ~ 250 KPa
PSI	40 ~ 60 psi	26 ~ 35 psi
Bar	2.8 ~ 4.2 Bar	1.8 ~ 2.5 Bar

5. Maximum Alert Tire Temperature (Upper-Temperature Alert): the Maximum Alert Tire Temperature is the temperature which induces alert by the system as the tire temperature is larger than the set temperature to remind the driver. The setting range will be converted automatically according to the unit selected by "Setting for Tire Temperature Unit". The default value is "80°C".

Tire Temperature Unit	Setting Range of the Maximum Alert Tire Temperature
℃	60 ~ 80℃
℉	140 ~ 176℉

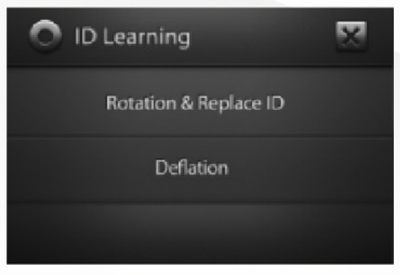
fter all settings are finished, click Save to store them. If you desire to restore all settings to default values, please click Default for change to default values.

Notes:
1. In setting the alert values for tire pressure and tire temperature, adjust them according to local ambient and car condition of the user, or consult professional tire maintainers.
2. Refer to the slogan card adhered beside the driver seat for tire pressure standard values.

3-3 Tire Setting

For Tire Setting, there are two modes, including Depressurization Learning ID and Rotation & Replace ID.

Before clicking Tire Setting, please enter the matching code "2231" in advance. Press Next if no error is identified.



In entering Tire Setting, there are Rotation & Replace ID and Depressurization Learning ID.

1.Rotation & Replace ID

In rotation & replace for tires, the locations of sensors will differ from original location settings, such that the order has to be adjusted in order for the receiver to show correct sensor locations, so that it assures that the location of each tire is the same as what shown on the screen. Please replace the tire location in advance, and record the locations of the tire before and after replacement accurately, followed by entering "Rotation & Replace ID" for Rotation & Replace according the Rotation & Replace locations you have recorded.

Enter the Rotation & Replace screen, and it shows the ID locations of the 4 tire sensors.

- Click the tire locations desired for Rotation & Replace, and the ID display box shows red background. Further click another to complete rotation & replace, and the sensor ID after rotation & replace is shown.
- Repeat above steps until all tires are adjusted to correct locations. Click Save to store the sensor ID after rotation & replace. Beep prompt sounds from the receiver after successful storage. Please click Cancel if no storage is desired.

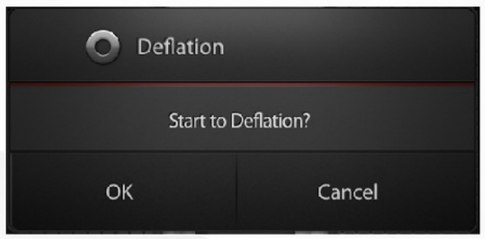
2. Depressurization Learning ID

In mounting or replacing tire pressure sensor, the receiver has to learn new Tire Pressure monitoring sensor ID. The learning of sensor ID may be performed in a depressurization manner.

Step 1: select Deflation

Step 2: Enter Depressurization Learning ID screen, which shows the respective ID numbers of the 4 tire sensors.

Step 3: click the ID number of tire sensor desired to be learned, and the system would query "When to Start Depressurization?"



Step 4: Press OK to start countdown for 120 seconds, and start the Depressurization Learning.

Step 5: As the receiver learns the sensor ID, beep prompt sounds, and the ID is displayed on the Depressurization Learning ID screen.

- Repeat above steps to set the sensor IDs of other tiers.
- After setting the sensor IDs entered for single tire or multiple tires, click Save to store the new sensor IDs. Beep prompt also sounds from the receiver after successful storage. Please click Cancel if no storage is desired.

Caution:
In the process of performing Depressurization Learning ID, do not quit the Depressurization Learning ID interface, and it is prohibited from operating any key, in order to avoid Depressurization Learning interrupt, which results in failed learning.

3.4 Driving Mode

As Driving is clicked, the Tire Pressure, Tire Temperature Display screen would be returned.

3.5 Background Mode

As  is clicked, the mobile phone desktop would be returned. Whenever there is any exceptional alert, exceptional alert icon and alert sound would occur to remind the user.

In the Background Mode, if there is no alert, the icon (as shown in the figure below) would show in the information bar on top.

In the Background Mode, if there is no alert, the  icon (as shown in the figure below) would show in the information bar on top.

In Background Mode, as an alert occurs, an exceptional alert icon will show (as shown in the following Figure 1), and  icon (as shown in the following Figure 2) shows in the information row on top.

At the moment, if you desire to understand the alert exception condition of TPMS system in detail, call APP and enter Driving Mode to browse the alert exception condition of TPMS system in detail.

Note: the alert icon shown in Figure 1 would show exception symbol according to actual exceptional condition.

Figure 1: Schematic of Alert

Figure 2: Information Bar on Mobile Phone

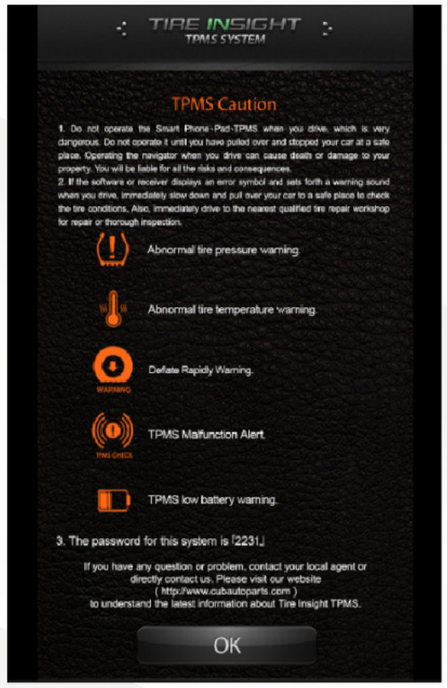
Caution:

1. In Background Mode, as an exceptional alert icon occurs, the exceptional alert icon and the alert sound may be canceled by double clicking the exceptional icon.

2. Press Home key, such that APP would also enters Background Mode.

3.6 Information

As  is clicked, the following description is shown. Press OK to enter Driving Mode screen.



3.7 Warning Symbol

The warning symbol of Tire Insight TPMS APP and receiver is described as below:

Light on Receiver	Symbol on Tire Insight TPMS APP	Warning and Suggestion
RED warning light for abnormal tire Pressure/temperature. It lights and sounds an alarm in warning situation stated in right-hand column.		Abnormal Tire Pressure Warning: User sets up the value for “High Tire Pressure” and “Low Tire Pressure” in System Setting in APP, it will light and sound an alarm when tire pressure is higher than 50% of “High Tire Pressure” or lower than 25% of “Low Tire Pressure”.
		Abnormal Tire Temperature Warning: User sets up the value for “Tire Temperature” in System Setting in APP, it will light and sound an alarm when tire temperature is higher than “Tire Temperature”
		Abnormal Warning for Rapid Deflation: It will light and sound an alarm when the tire is deflating rapidly.
Orange warning light for abnormal TPMS system. It lights and sounds an alarm in warning situation stated in right-hand column.		Abnormal TPMS System Warning: It will light and sound an alarm when the receiver doesn’t receive the signal from TPMS sensor normally. Please drive the vehicle away from the current location (there may be signal interference in neighborhood) or drive the vehicle to a tire shop to check, or return the TPMS receiver to distributor for repair.
		Low Battery Power Warning for TPMS Sensor: It represents the battery power of the indicated TPMS sensor is low for the location of the tire, please drive the vehicle to nearest tire shop for examination, it is suggested to replace the TPMS sensor.

Light on Receiver	Symbol on Tire Insight TPMS APP	Warning and Suggestion
TPMS Green warning light for receiver power.		It should light when the vehicle is ignition on. The possible cause and suggestion is below if the light is off. 1. The receiver and USB cable is not well connected or the USB cable is not well connected with cigarette lighter. Or the cigarette lighter is not well connected to socket on the car. 2. Receiver, USB cable or cigarette lighter is probably damaged, please replace one according to the specification. For receiver, please contact our local dealer for repair. 3.The cigarette socket on the car is probably damaged, please go to c ar service shop for examination.

Notice:

1. When the warning light stated above is on, or light is on, it is suggested to stop the vehicle for examination, or drive to the nearest tire shop for examination. You could understand the warning in detail from the tire data shown on APP by connecting with smart hand-held device.
2. When the APP is in background mode (exit from APP by press “Home” button), it will show the warning symbol when the warning situation is occurred. The warning symbol and alarm sound will be off by pressing the warning symbol twice on APP. If you want to check the warning situation, please enable the APP again.

3.8 Exist Tire Insight TPMS APP

Click the "Backspace" key twice for APP to close.

Chapter 4 Troubleshooting

4.1 Simple Troubleshooting

No.	Issue	Possible Cause	Solution
1.	The green power indicator for the receiver does not light up.	The receiver is not connected to the cigarette lighter head, followed by being connected to power by inserting into the cigarette lighter according to the installation method of the system.	Please install the receiver according to the installation method required by the system.
		USB cigarette lighter head is damaged.	Please replace USB cigarette lighter head according to the accessory specification of the system.
		The cigarette lighter jack for car is damaged.	Please visit automobile service factory to examine the cigarette lighter jack for car.
2.	APP shows Disconnection icon.	Your smart hand-held device (mobile phone / tablet computer) is not connected with the receiver.	Please connect your smart hand-held device (mobile phone / tablet computer) with the receiver, followed by opening APP.
3.	APP cannot be opened.	The Android operating system in the mobile phone or tablet computer is not compliant with APP requirement.	Identify the version of Android operating system in mobile phone or tablet computer.
4.	APP does not show messages of tire pressure and tire temperature.	1.The receiver does not receiver new message. 2.The receiver malfunctions. 3.Micro USB cable is damaged. 4.USB connection cable is damaged.	1.Please increase the car speed above 20km/h. 2.Please visit the original procurement dealer for examination or replacement. 3.Replace Micro USB cable. 4.Please visit the original procurement dealer for examination or replacement.
5.	The "Tire Insight TPMS Has Stopped" condition occurs.	1.Open multiple APPs. 2.The memory in smart hand-held device is overloaded.	1.Close other APPs. 2.Close unnecessary running programs. 3.Enter Setting－Application－Running－Tire Insight TPMS－Selection to Stop; remove and reinsert USB after 30 seconds to 1 minute, followed by execute Tire Insight TPMS APP again.
6.	APP opened in some HTC mobile phones cannot operate.	This is resulted from the contradiction condition occurred when "Select to Change USB Type" query is popped by HTC Sense in connecting USB.	As executing APP query occurs, do not execute APP temporarily. Wait until "Select to Change USB Type" occurs, select charging to execute APP.
7.	"Installing Software" query is popped as new style Sony mobile phone is connected with USB.	The "Installing Software" query is the design of Sony system.	1.Simply select "Ignore" as the "Installing Software" query occurs.
8.	As the new style Sony mobile phone is connected with USB, "Installing Software" query is popped. APP cannot be initiated after clicking Installation.	The "Installing Software" query is the design of Sony system.	1.Please reboot if APP cannot be executed because such condition occurs. 2.After reboot and connection, "Installing Software" query occurs. Please select "Ignore".

Product Warranty

Thank you for buying this product and giving us support. From the date of purchase on we provide 1 year free warranty for the product, protecting the client's interests and Tire Insight product quality assurance. During the warranty period, under normal operation, in the event of a poor product, the company is willing to provide the bad product with repair service or have it replaced, enabling you to get the guarantee and demonstrating the company's responsible attitude toward products. But the product warranty parts must meet the following conditions:

1. Defective products need to be provided to local dealer to confirm purchase date and cause.
2. Products must be normally operated as indicated in the user manual.
3. Product has not been disassembled by yourself.
4. The main cause of product failure is due to manufacture issue.

Disclaimer:

This product is only to be used as precautionary warning and provides user as a convenient secondary safety equipment. Please follow the standard installation procedure or ask a qualified tire shop to install the product. If the tire has been damaged or traffic accident occurs resulting from improper driving behavior, the company will not assume civil or criminal liability.

In the event of any questions and inquiries about warranty, you may contact your local dealer or CUB directly.

Other relevant latest information of Tire Insight TPMS is available at our website (http://www.cubautoparts.com) for latest information.