User Manual

TPCI-II

(Scan Tool)

User Manual

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Things to Check Before Use

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Things to Check Before Use

Things to Check Before Use **Module: A-10-001**

1. Introduction

Thank you for purchasing the TPCI-II module (hereinafter “TPMS diagnosis module”), GIT’s equipment for diagnosing the Tire Pressure Monitoring System (hereinafter “TPMS”).

TPCI-II is an optional equipment of GIT’s diagnosis system, which is a piece of equipment for the diagnosis of the TPMS installed in a vehicle. The user can use TPCI-II to diagnose a vehicle’s TPMS control system more conveniently and register the changed specifications with a simple operation such as replacing the TPMS sensor or TPMS control module.

2. Contents of this Manual

This manual covers the basic details needed to use the TPCI-II module.
For details such as diagnostic device software as well as how to use diagnostic functions, please refer to our diagnostic device user manual.

Things to check before use	TPMS diagnosis module components, product features, description of safety precautions for use
How to use	Basic description of TPCI-II device
TPMS diagnosis	Description on how to use the functions related to TPMS in the diagnostic device’s additional functions
APPENDIX	Safety precautions for users, product certification, how to contact the customer center; description of matters related to product warranty

3. Precautions When Using the Product

The TPCI-II module is an electronic product with a precise structure. Please use the product after checking the precautions before product use.

GIT shall not assume responsibility for product damage due to user negligence.

This page contains warnings and cautions that a user must familiarize himself/herself with when using the TPCI-II module.

Caution

This indicates that incorrect handling may result in a major accident causing death or serious injury.

☞ All cables connected to operate the TPCI-II functions must be connected properly. Please be careful not to disconnect the cable when using the functions.

☞ Do not disassemble the TPCI-II module.
For details on maintenance, please refer to the guidelines specified in the manual.

☞ When updating the TPCI-II module, please supply stable power by ensuring sufficient battery capacity or connecting an external power supply.

☞ For accessory parts related to TPCI-II, please use only genuine parts supplied by GIT.

☞ Please use the device only for the purposes indicated by GIT.

☞ Please use the device after familiarizing yourself with the user manual.

☞ The user shall assume responsibility for product damage due to failure to follow the

cautions and warnings specified in the manual.

☞ GIT's product must not be tested or repaired by persons other than the service engineers designated by the company.

☞ Please use and store the device at an appropriate temperature. (Refer to the specifications.)

※ Avoid storing the product in the following environments:

- Place with excessively high or low temperatures.
- Place with excessively high or low humidity.
- Place exposed to direct sunlight.

☞ Please replace the rechargeable battery according to the replacement method after familiarizing yourself with the user manual.

☞ Please use only rechargeable batteries supplied by GIT.

☞ Do not arbitrarily disassemble rechargeable batteries.

☞ Please be careful not to submerge rechargeable batteries in water or other liquids or get them wet.

☞ Please do not place rechargeable batteries near heat sources.

☞ Do not apply impact to rechargeable batteries or pierce them with a sharp object.

☞ Do not place rechargeable batteries in microwaves or high-pressure vessels.

☞ Do not throw or apply physical shock to rechargeable batteries.

☞ Please be careful not to short-circuit rechargeable batteries.

☞ If abnormal phenomena such as odor, heating, deformation, or discoloration of rechargeable batteries occur, do not use them.

☞ Be careful not to have the poles of the terminal reversed.

☞ GIT shall not assume responsibility for any product except for that provided by GIT.

☞ Do not connect rechargeable batteries directly to an external power.

☞ Do not place rechargeable batteries near heat sources.

☞ Be careful not to make the positive (+) and negative (-) terminals of rechargeable batteries short-circuit each other.

☞ For the warranty for rechargeable batteries and consumables, please refer to the “warranty of consumables and accessories” section of the product warranty certificate.

☞ The life of rechargeable batteries may vary depending on the environment where they are used.

☞ Rechargeable batteries that are damaged or deformed due to user error are subject to paid repair.

Warning

Injury or property damage may occur due to mishandling of the product.

More serious consequences may occur under specific conditions.

☞ Be careful not to drop the device.

☞ Do not place any object on the TPCI-II device.

☞ Do not place the TPCI-II device under a heavy object or apply shock or shake it.

☞ Store the components at the designated location when not in use.

☞ Do not use the cable connected to the device as a portable handle.

☞ Be careful not to apply shock or shake the product during transport.

☞ Be careful not to place it near objects or places where fire may break out due to electric sparks.

☞ Be careful not to get paint, chemical varnish, or acid material onto the TPCI-II module and accessory parts. The product may corrode.

☞ Make sure that the product is not exposed to X-rays or microwaves.
It may seriously damage the product.

☞ Do not store batteries at a hot place. It reduces the battery life.

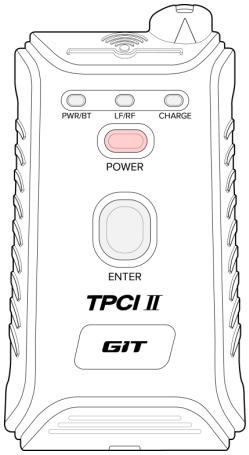
☞ If the contents of the battery get into your eyes, do not rub but rinse with flowing water and consult a physician.

Specifications / Components

4. Specifications

Item		Specifications
Product name/Model name		Sacn Tool / TPCI-II
Micro Controller		M3 MCU (STM32F205RGT6) @120MHz
Operating Voltage		5V DC
Communication Port Specifications		BT 5.0 / USB 2.0
TPMS LF/RF		LF(TX): 125 kHz / RF(RX): 315MHz or 433.92MHz
TPMS Protocol		SIEMENS, LEAR, TRW, MOBIS (SCHRADER), SEETRON, BAOLONG, DENSO, SENSATA
Rechargeable Battery		Li-Ion 3,350mAh 1cell (SAMSUNG SDI)
Charging Power		5V DC / 1.5A
Temperature	**Operating**	0°C~45°C (32°F~113°F): when charging
		-10°C~50°C (14°F~122°F): when discharging
	Storage	-10°C~70°C (14°F~158°F)
Relative Humidity	**Operating**	Noncondensing @ -10℃~70℃ (14℉~158℉) (Refers to the cautions of the manual.)
		Noncondensing @ 0℃~10℃ (32℉~50℉)
		90%RH @ 10°C~30°C (50°F~86°F)
	Storage	Noncondensing @ -10℃~70℃ (14℉~158℉) (Refers to the cautions of the manual.)
External Indication Lamp	**POWER**	RED / BLUE
	CHARGE	Red (Charging), Green (Charged)
	LF/RF LED	RED / GREEN
Button		Main Module: Power ON/OFF Key, Enter Key (LF transmission) External Antenna: Enter Key (LF transmission)
Module Size		138.6 X 72.2 X 30.5 mm
Weight		200 g (with external antenna installed: 300g)
Case		PC+ABS
Shroud		TPE

5. Components

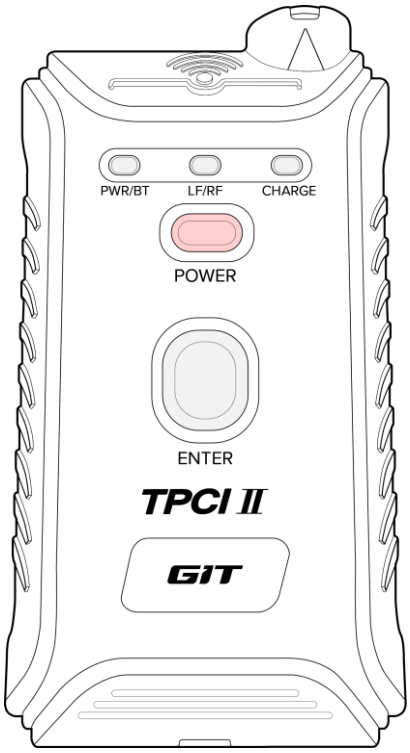
Item	Details	Quantity
	P/No.: G1TDDMN202	1
	It is a module directly communicating with a TPMS sensor installed in a tire via wireless signal (RF/LF) to diagnose a vehicle's TPMS system.	

How to Use

- Description of Device Body ---------- A-11-001
- Power ON/OFF & External Power Supply ---------- A-11-002
- TPMS Diagnostic System Connection ---------- A-11-003

Description of Device Body

Description of Device Body	Module: A-11-001



<Figure 1. TPMS Diagnostic Module>

	Item	Function
①	**POWER button**	This button turns the power of the TPCI-II module ON/OFF.
②	**ENTER button**	Detects the diagnostic data and ID via RF communication between the TPMS sensors installed in a vehicle.
③	**POWER LED**	Lets the user identify the power status of the TPCI-II module.
④	**LF/RF LED**	The user can check the communication status of the TPMS sensors installed in a vehicle's tires by lighting up.
⑤	**CHARGE LED**	Lets the user check the charging status of the battery when connected to the charging cable.

1. Conditions for Lighting up of Device LED

1) Conditions for Lighting up of POWER LED

Classification		LED Status
Power	ON	Red
	OFF	OFF
BT connection	Connected	Blue
	Disconnected	Red (when power is ON)
Low battery voltage		Red LED blinking

2) CHARGE LED

Classification	LED Status
Fully charged	Green
Discharging	OFF
Charging	Red

3) LF/RF LED

Classification	LED Status
Upon LF transmission	Red
When receiving RF	Green blinking
Standby	OFF

Power ON/OFF & External Power Supply

2. Turning Power on/off & Turning on External Power Supply

Press and hold down the Power button of the TPCI-II module for more than 0.5 seconds until the red POWER LED lights up.

3. Turning off Power

Press and hold down the Power button of the TPCI-II module for more than 1.5 seconds.

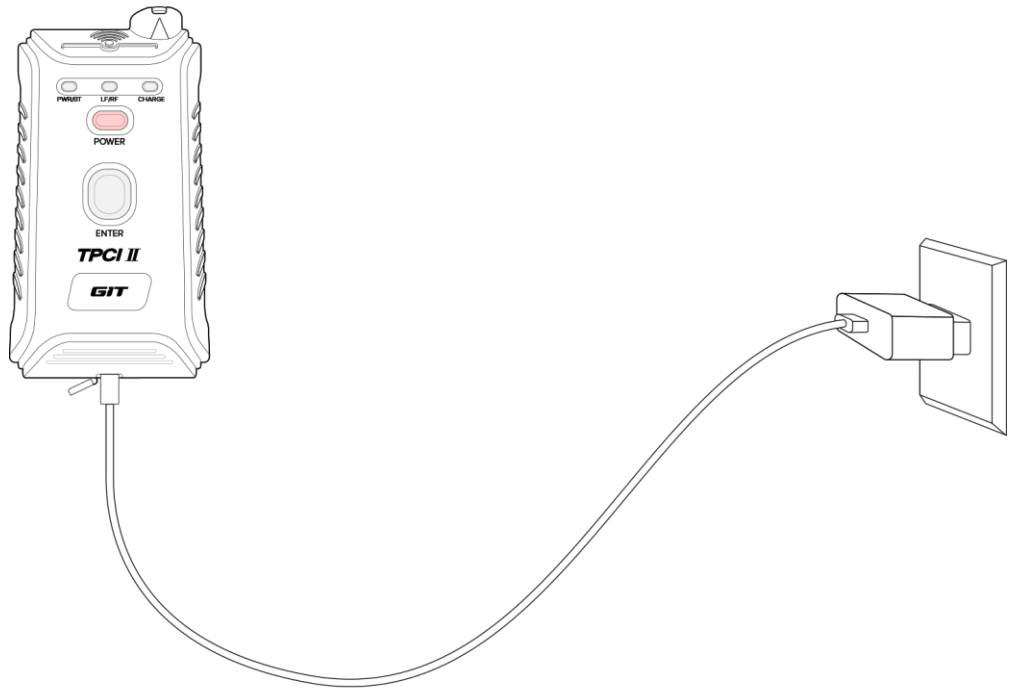
4. How to Connect to External Power

■ Supply the device with power from the external power supply of the DC power device (adaptor for charging) or tablet PC using a USB C-type cable.

※ Reference

☞ The TPCI-II module is designed to be activated with its built-in rechargeable battery.

☞ If the battery of the device is fully discharged, supply external power, recharge, and then use it; the device can also be turned on while external power is supplied.



<Figure 1. External Power Connected to the TPCI-II Module>

Configuration of the TPMS Diagnostic System

Configuration of the TPMS Diagnostic System **Module: A-11-003**

Please check whether the diagnostic system is configured and connected as follows to diagnose the TPMS system:

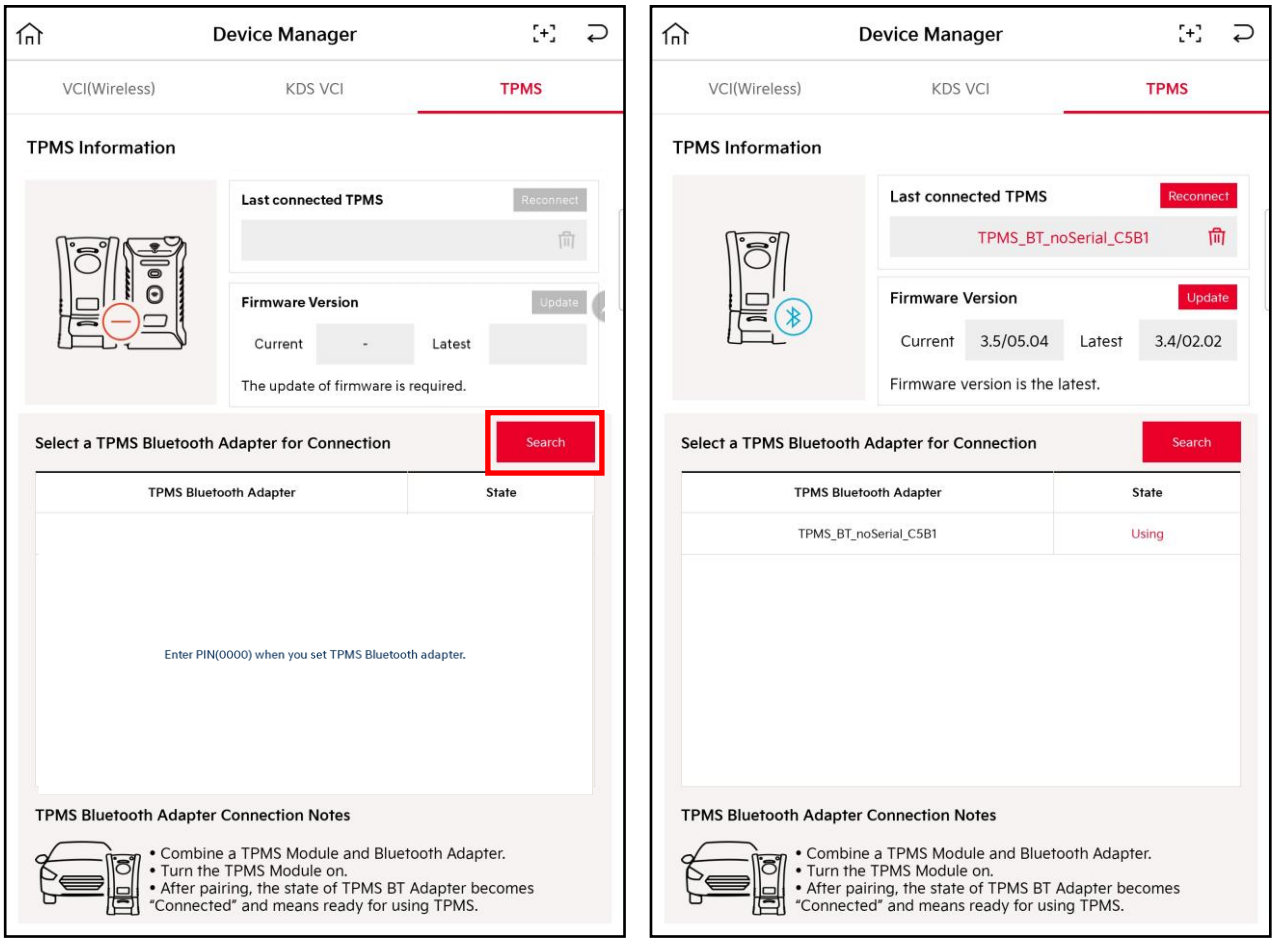
5. Configuration of the TPMS Diagnostic System

The VCI module must be communicating with a vehicle through the OBD II terminal.

The TPMS diagnostic module must be communicating with a tablet PC where a diagnosis program is installed via Bluetooth.

1) Connecting TPCI-II

- Press Search and select the TPCI-II module to be connected.



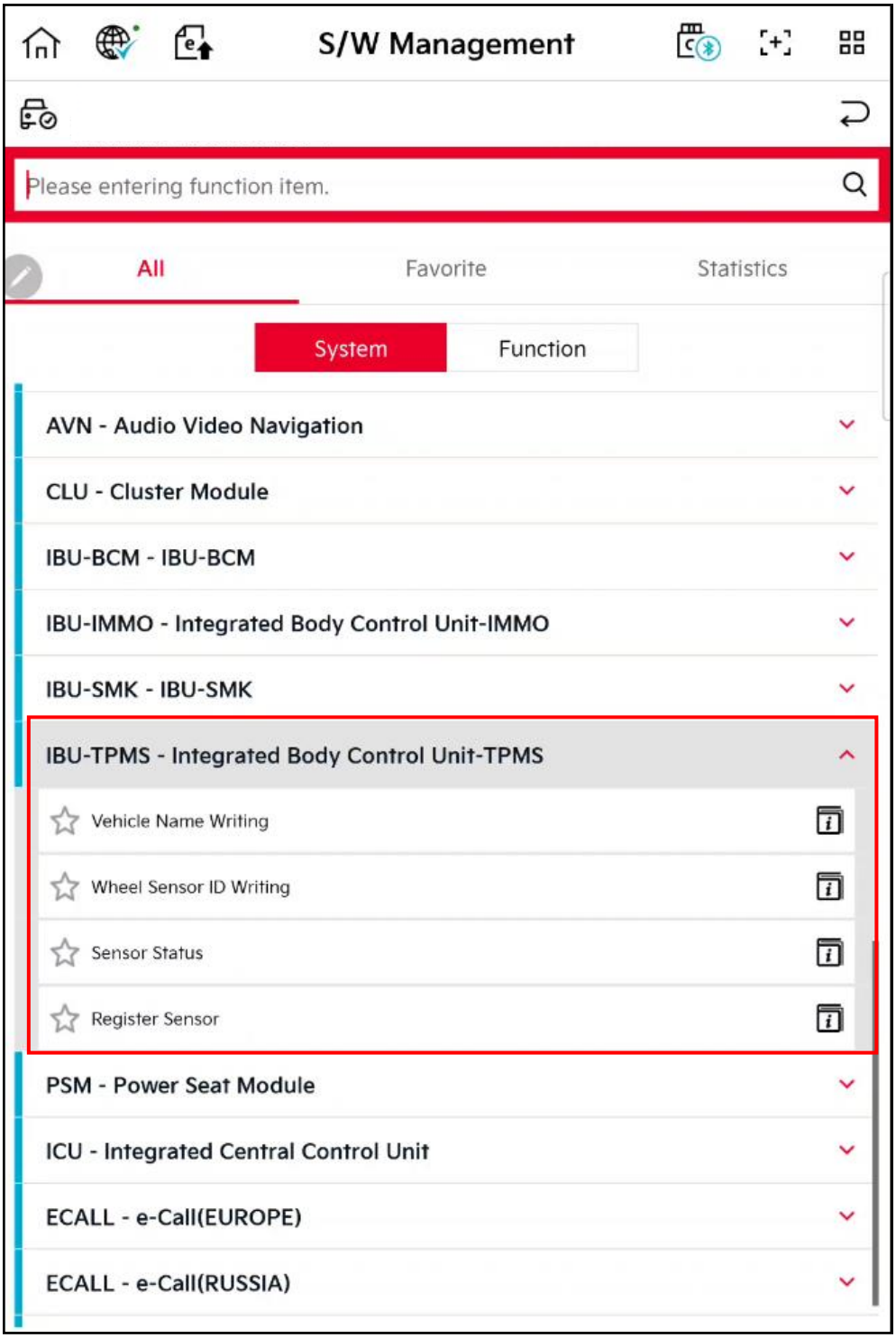
<Figure 1. TPCI-II Connection>

TPMS Diagnosis

- Introduction to the TPMS Diagnosis Mode ---------- A-12-001

TPMS Diagnosis

1. Introduction to the TPMS Diagnosis Mode



<Figure 1. Additional Function - TPMS Screen>

2. IBU-TPMS

Function that can perform the overall tasks of the TPMS.

Function	Details	Whether the TPCI-II Module is Required
Sensor ID Input (Manual)	Function for manually entering Sensor ID on the TPMS ECU.	No
Read Sensor Info	Function for checking the current status of the TPMS sensor installed in each tire.	Yes
Register Sensor ID	Function for entering a Sensor ID on the TPMS ECU.	Yes
TPMS Test	Function for checking whether the TPMS sensor is operating properly.	No
TPMS Reception Rate Measurement Mode	Function for checking the reception rate of the TPMS sensor.	No

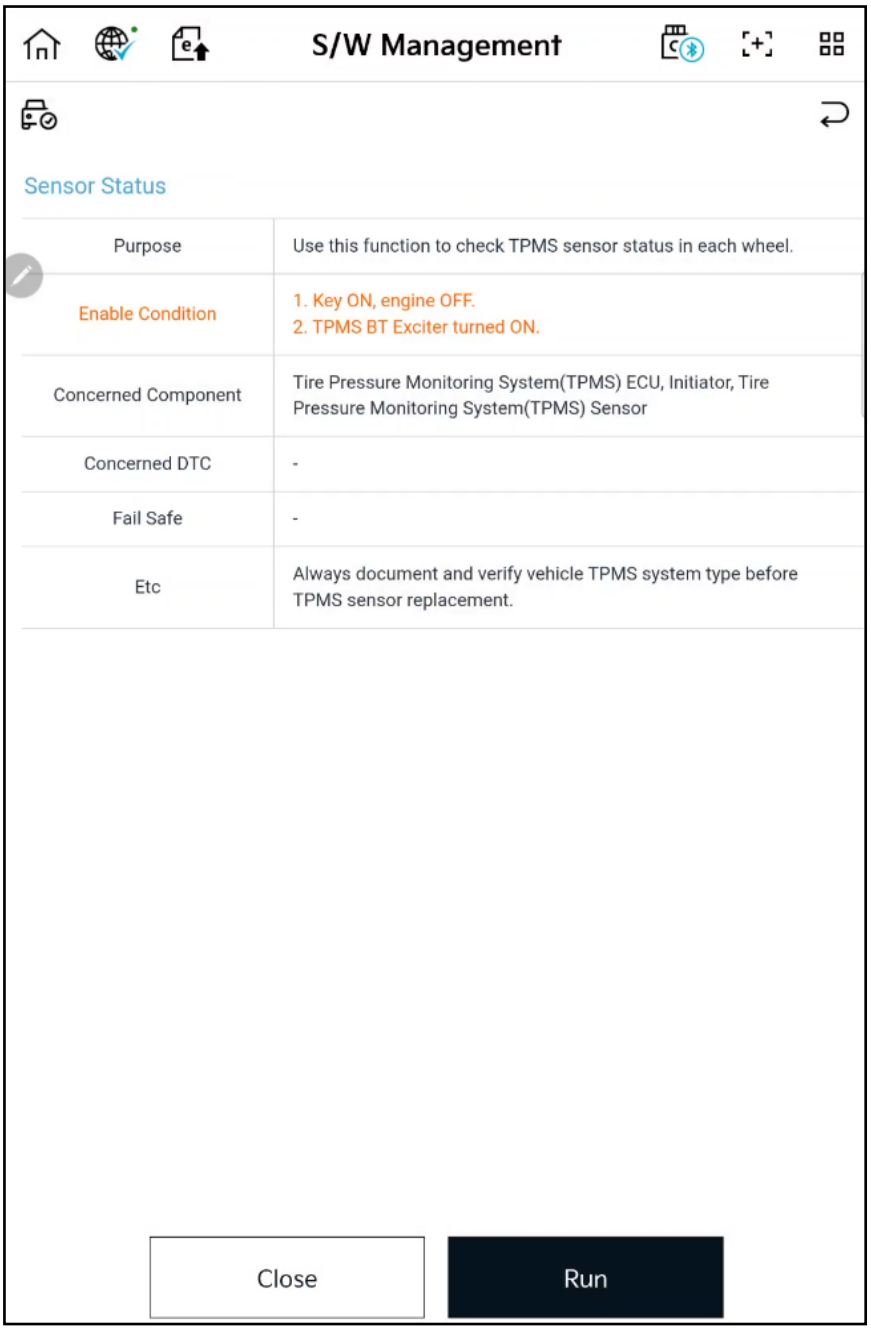
3 How to Use Functions That Can Be Implemented Through the TPCI-Ⅱ module

1) Read Sensor Info

- Function for checking the current status of the TPMS sensor installed in each tire.

- You can use the TPCI-II module to check the current status of the tires and TPMS sensors measured from each TPMS sensor.

1-1) Check the details on the screen and then press the “Execute” button at the bottom of the screen.

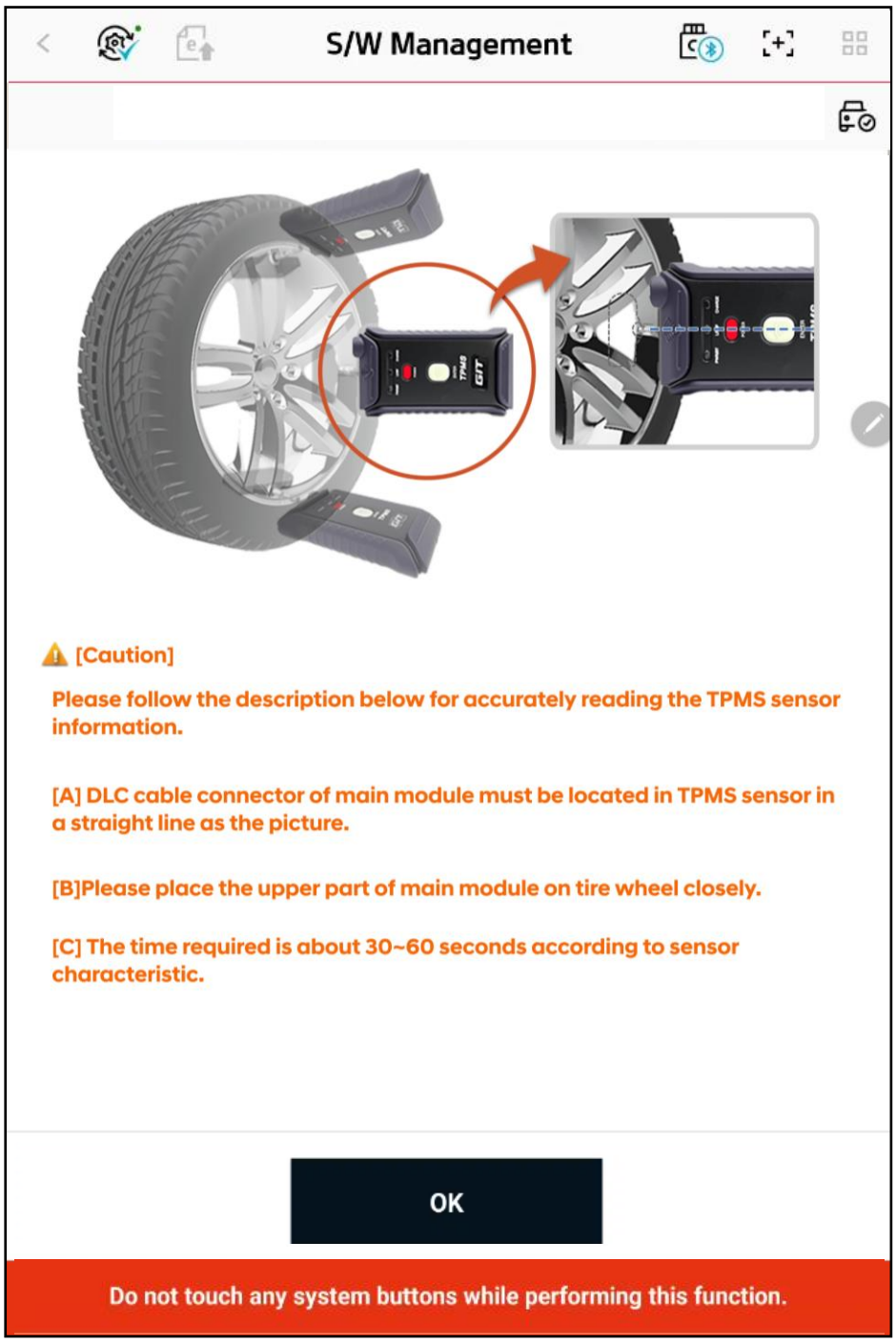


<Figure 1-1. Execution of Read Sensor Info>

1-2) Refer to the guide and then press Confirm.

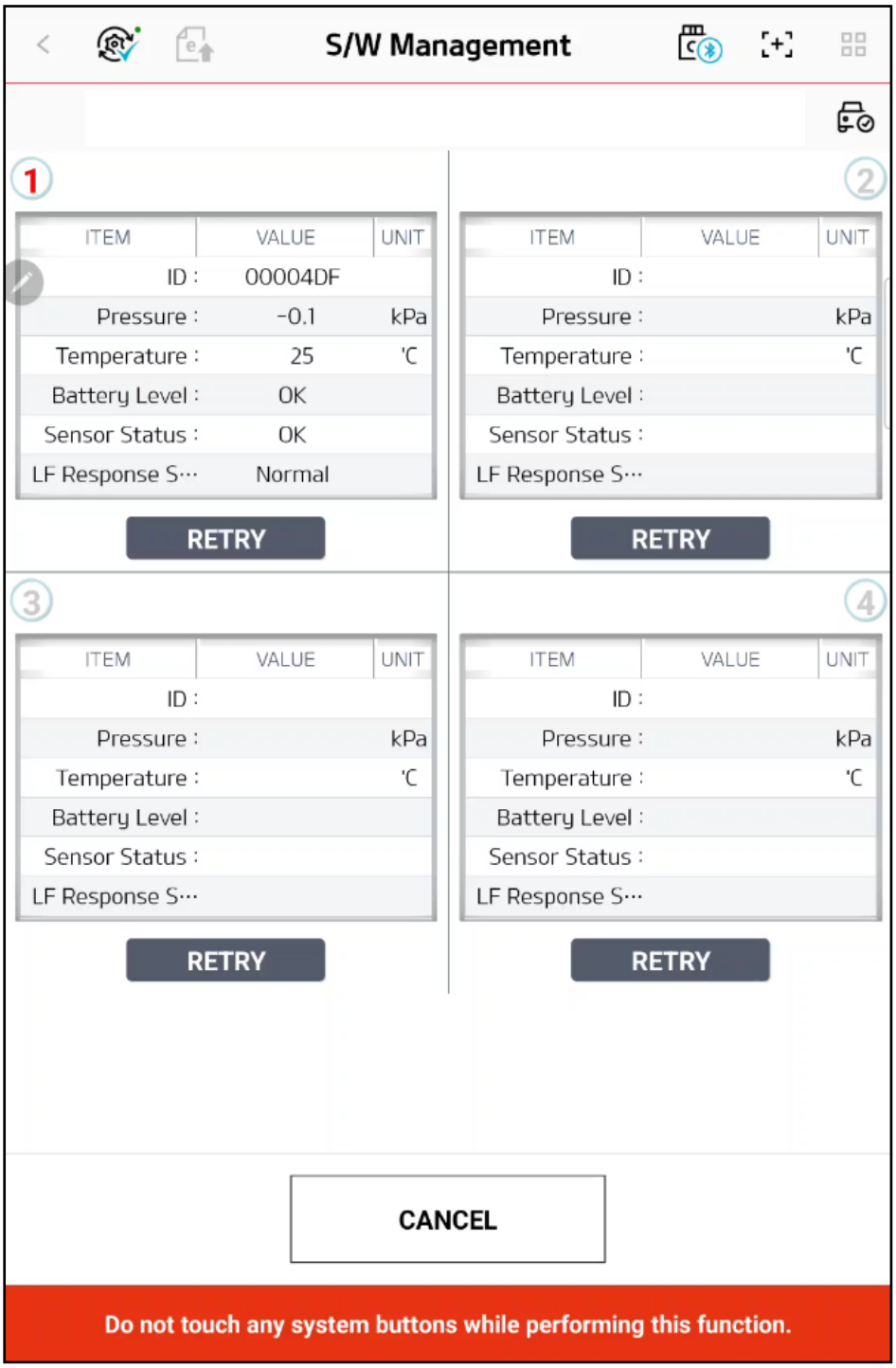
<Figure 1-2. Guide to Read Sensor Info>

1-3) Check Precautions ([A], [B], [C]) and then press the Confirm button to read TPMS Sensor Info.



<Figure 1-3. Execution of Read Sensor Info>

1-4) Check the information by reading the TPMS sensor information according to the order of a vehicle's tires.



<Figure 1-4. Check Sensor Info>

※ Precautions

- Perform the task in the same direction as the vehicle.
- If the TPMS sensor value is not read properly, please read again via Retry.

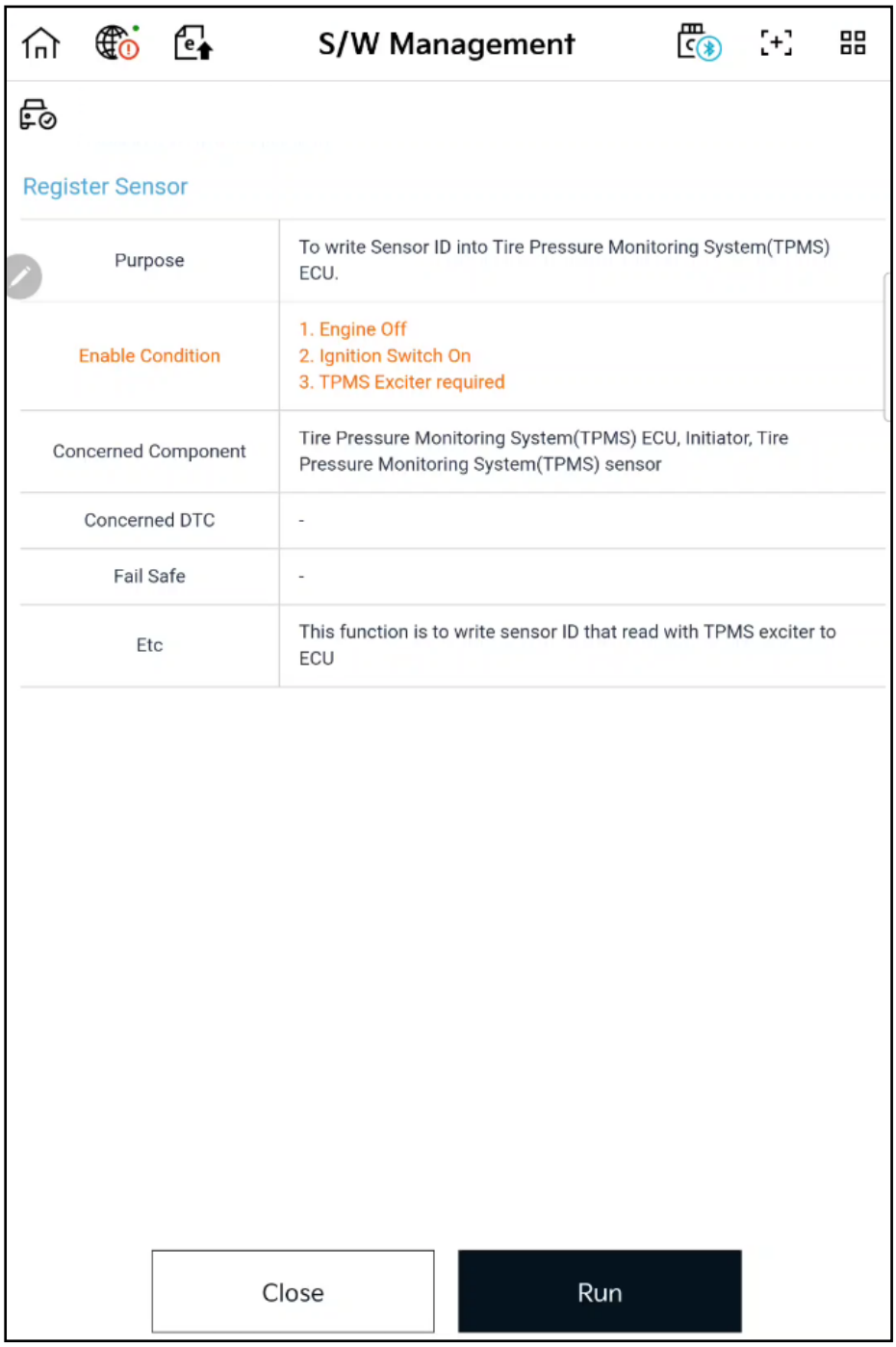
2) Register Sensor ID

- This function is for entering the TPMS sensor ID of a tire read through the TPCI-II module on the TPMS ECU.

- The TPMS process of a vehicle can operate properly only when each TPMS sensor is registered in the TPMS ECU through the Sensor ID Registration function after replacing the TPMS sensors.

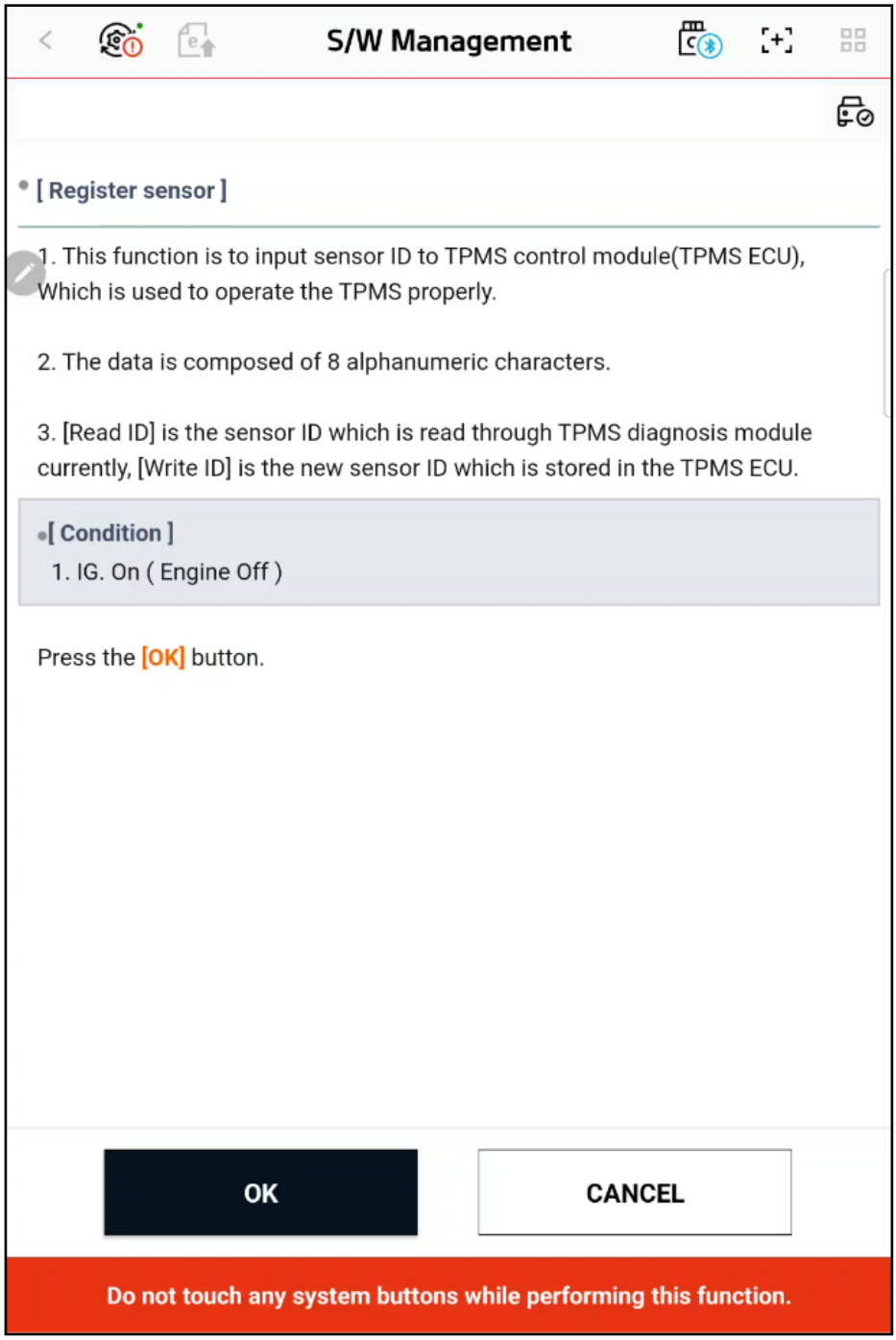
- Please perform the task by referring to the details.

2-1) Check the details on the screen and then press the “Execute” button at the bottom of the screen.



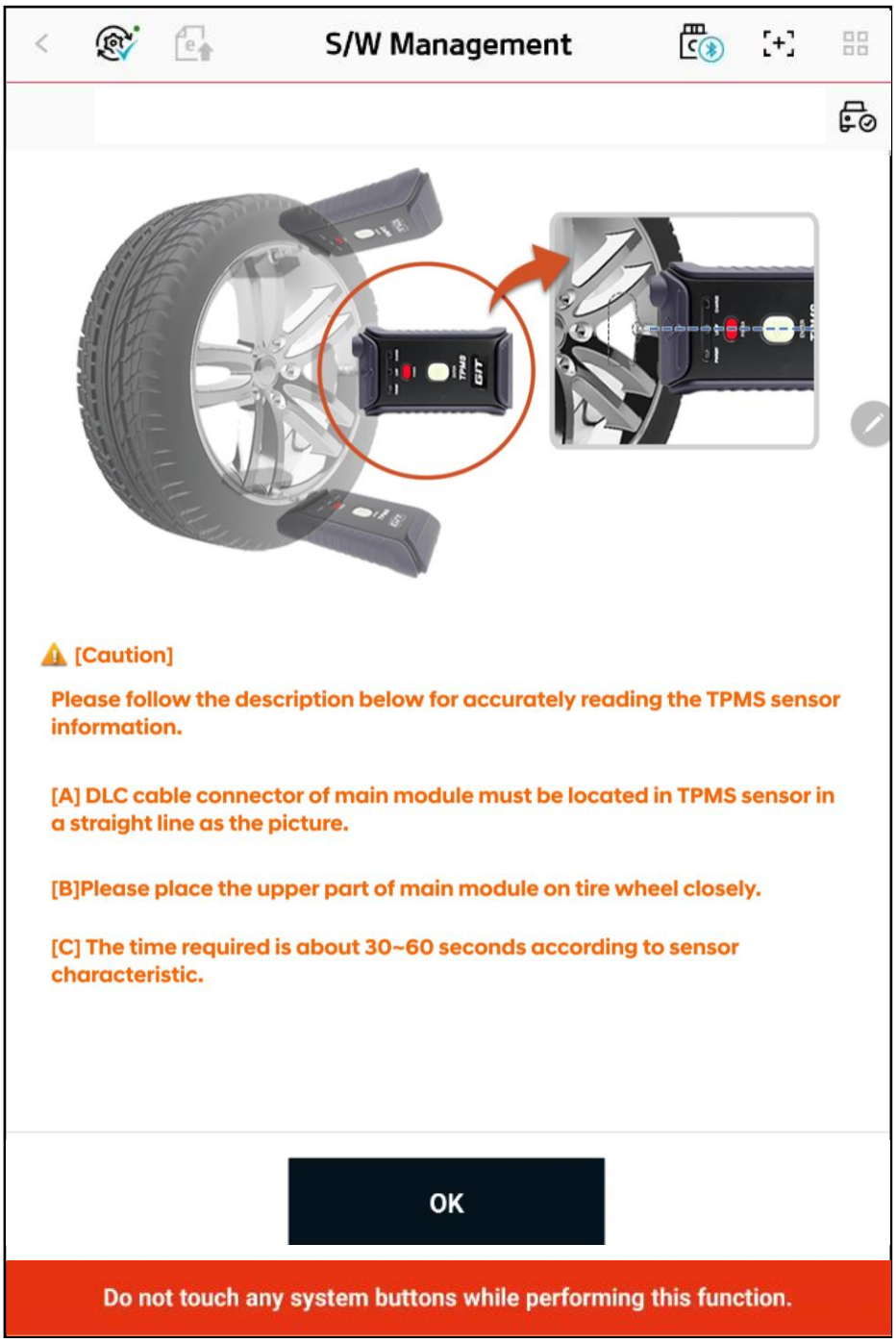
<Figure 2-1. Execution of Sensor ID Registration>

2-2) Refer to the guide and then press Confirm.



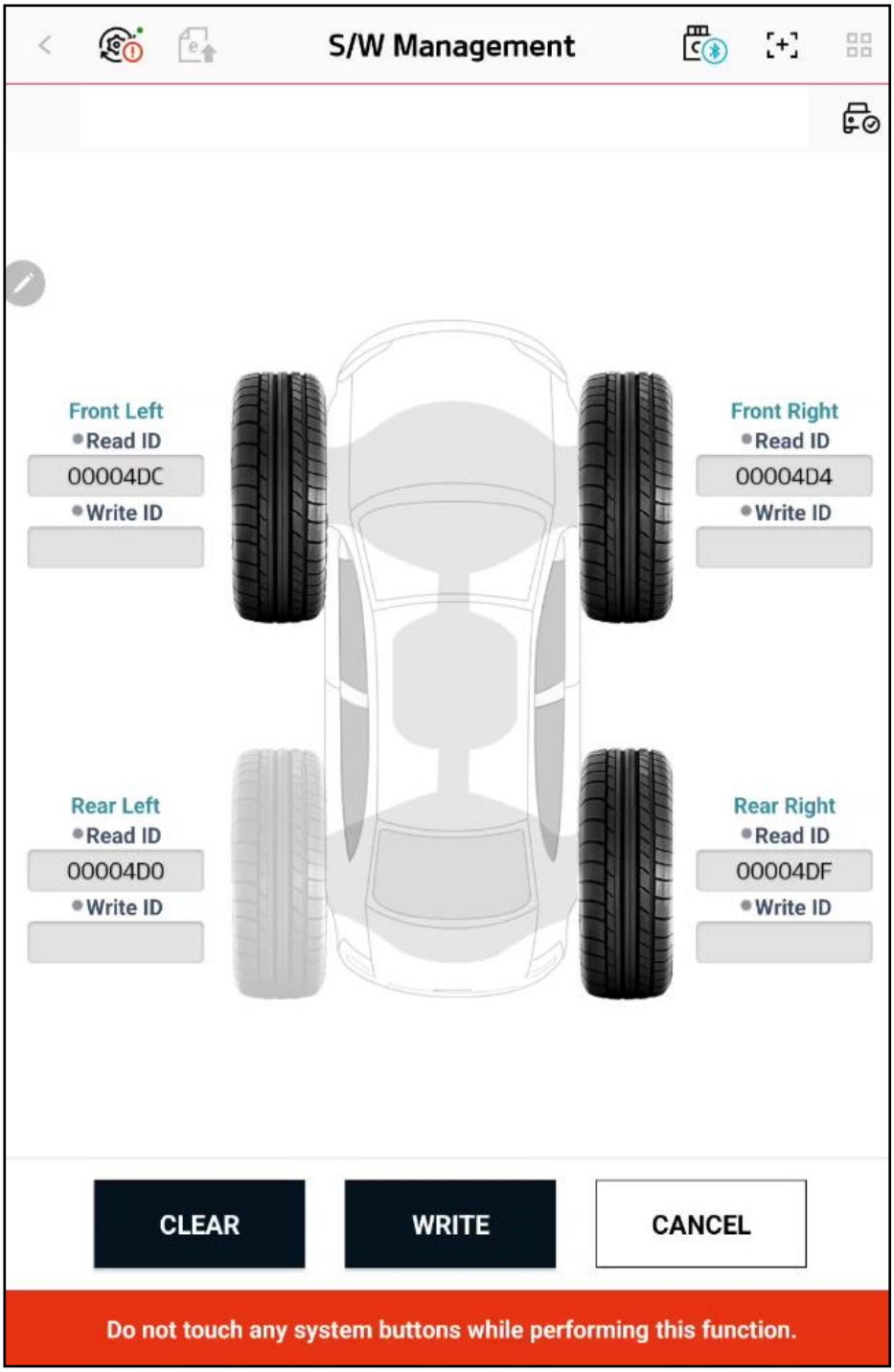
<Figure 2-2. Guide to Sensor ID Registration>

2-3) Check Precautions ([A], [B], [C]) and then press the Confirm button to read TPMS Sensor Info.



<Figure 2-3. Execution of Sensor ID Registration>

2-4) Register the information by reading the TPMS sensor information according to the order of a vehicle's tires.

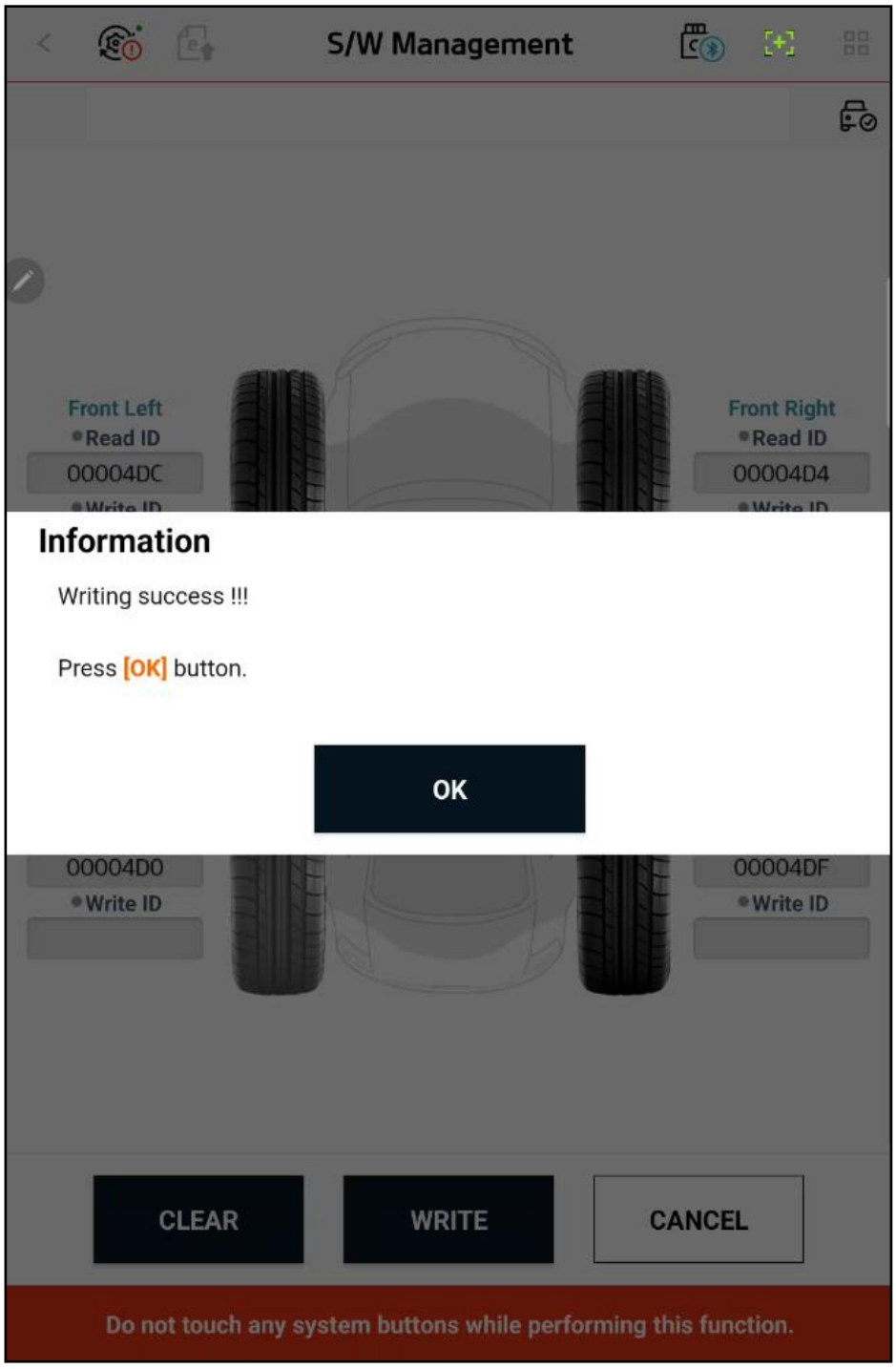


<Figure 2-4. Sensor ID Registration>

※ Precautions & Reference

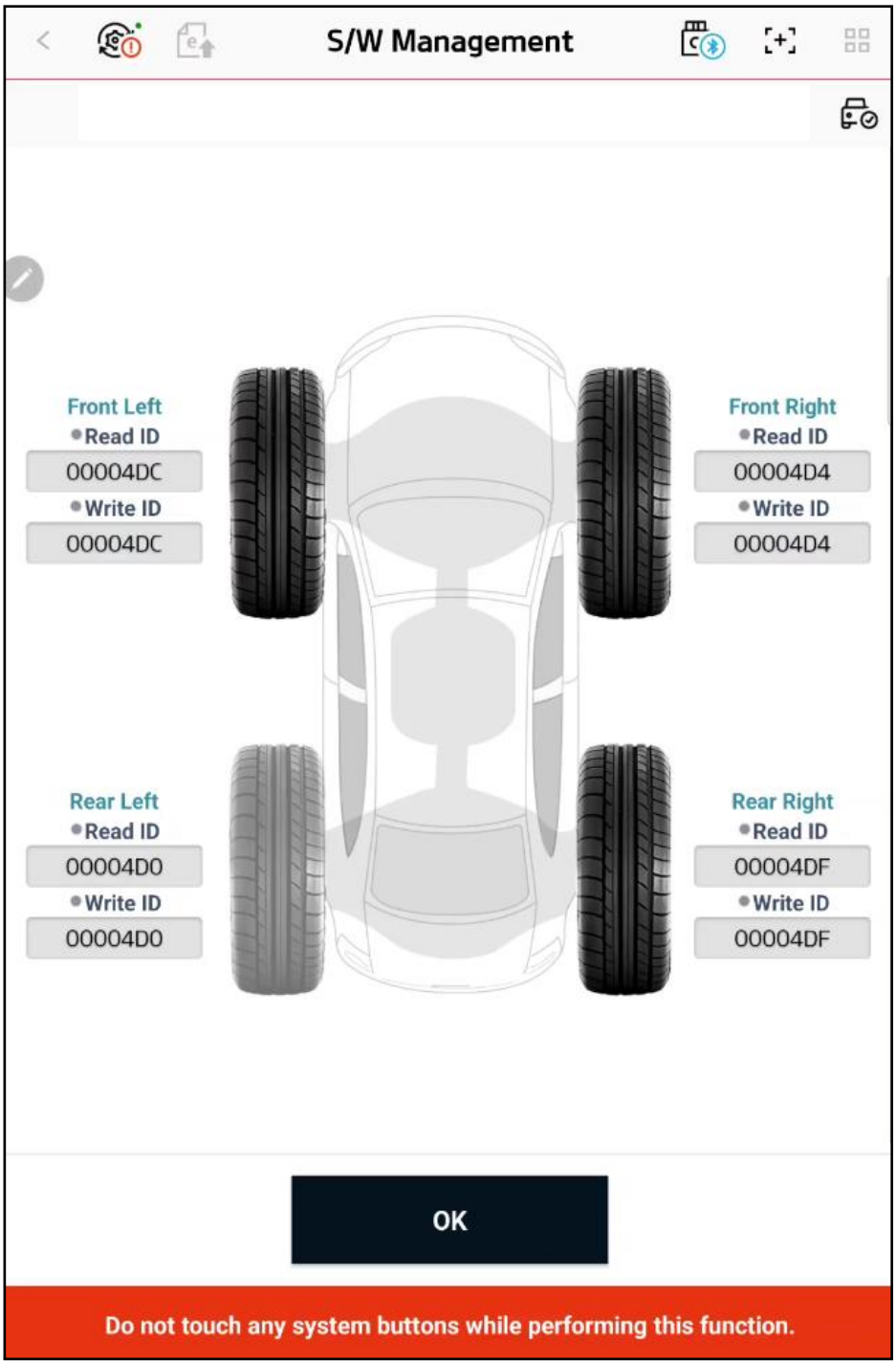
- When a sensor location is misread, erase (reset) the read information through the Erase function and then proceed with re-registration.

2-5) Write the registered information into the TPMS ECU.



<Figure 2-5. Writing Read Info into the TPMS ECU>

2-6) Please check the information written into the TPMS ECU.



<Figure 2-6. Checking the Info Written into the TPMS ECU>

APPENDIX

- Precautions for Users ---------- A-13-001
- Product Certification & Customer Center (A/S) Contact Information ---------- A-13-002

Precautions for Users

Precautions for Users **Module: A-13-001**

1. Precautions for Users

Do Not Remove the TPCI-II Module Cover & Battery

If you have to replace the rechargeable battery of the TPCI-II module, please contact the customer center.

Warning

Never disassemble the TPCI-II module in any case whatsoever.

GIT shall not assume responsibility for product damage due to the user's negligence.

1) Do not remove the assembly bolts of the TPCI-II module cover.
   (You cannot arbitrarily disassemble due to the shroud and buried structure.)

♣ 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.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This equipment complies with FCC RF exposure requirements set forth in an uncontrolled environment and can be used without any restriction

Modifications: Any modifications made to this device that are not approved by GIT may void the authority granted to the user by the FCC to operate this equipment.

The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter, except in accordance with FCC multi-transmitter product procedures.

Product Certification & Customer Center (A/S) Contact Information

Product Certification & Customer Center (A/S) Contact Information	Module: A-13-002

2. Product Certification & Customer Center (A/S) Contact Information

1) Device name (Model name): SCAN TOOL (TPCI-II)
2) Certifier's company name: GIT Co., Ltd.
3) Manufacturer/Country of origin: GIT Co., Ltd. / Republic of Korea
4) Date of manufacture: Indicated separately

User Notice
This device has undergone conformity assessment for use in a business environment, and it may cause electromagnetic interference when used in a domestic environment.

5) Customer Center (A/S) Contact Information
Address: 6F, Starwood Plaza, 400, Dunchon-daero, Jungwon-gu, Seongnam City, Gyeonggi Province
Tel.: +82 2-2189-5481

Quality Warranty Certificate & Information

3. Quality Warranty Certificate & Information

This product has gone through strict quality control and inspection process. We at GIT Co., Ltd. provide the following warranty on the product according to the consumer damage compensation regulations (Notice of the Ministry of Economy and Finance) by item (please contact the dealer or head office in case of product breakdown).

1) Purchasing Information

Product Name		TPCI-II	**Body Serial Number**	
Customer	Company Name		Name	
	Tel.		Address	
Place of Purchase (Dealer)	Company Name		Name	
	Tel.		Address	
Date of Purchase	Day Month Year		Warranty Period	1 year
Manufacturer (Warranty manager)	Company Name	GIT Co., Ltd.	Tel.	+82 1588-3665
	Address	GIT BLDG., 87, Macheon-ro, Songpa-gu, Seoul		

2) Free Service

Free service can be received only when a product breaks down during normal use during the product warranty period (see below) after purchase. If the date of product purchase cannot be confirmed, the product warranty period is calculated by “adding 90 days (product distribution period) to the date the product was shipped from the head office.”

♣ Warranty Period by Item

(See item classification)

Classification	Damage Type	When Purchasing the Product Set for the First Time	When Purchasing a Separate Unit	Post-repair Assurance
Body	Defect during normal use	1 year	1 year	3 months
Accessory		1 year	6 months	N/A
Consumables		N/A	6 months	N/A
Others		Comply with the A/S regulations of the manufacturer		

※ Although the battery is a consumable, the warranty period is 6 months when newly purchased.

♣ Compensation Criteria by Type

Type		Within the Warranty Period	After the Warranty Period
When requiring major repairs within 10 days of purchase		Product replacement	N/A
When requiring major repairs within 1 month of purchase		Free repair	N/A
Repairable	In case of defect during normal use	Free repair	Paid repair
	In case of defect of the same part for the third time	Product replacement	Paid repair
	Breakdown caused intentionally by the customer or due to his/her negligence	Paid repair	Paid repair
Irreparable	In case of defect during normal use	Product replacement	Processed by company regulations
	Breakdown caused intentionally by the customer or due to his/her negligence	Processed by company regulations	Processed by company regulations
Damage due to not having parts for repairs during the parts retention period		Product replacement	Processed by company regulations
Damage that occurred during transport or product installation when the product was purchased		Product replacement	N/A

♣ **TPCI-II Item Classification**

Classification	Item
Body	TPCI-II Main Module (Body)
Consumables	Battery

※ The items above include optional products, and components may vary depending on the selection of optional products.

3) Paid Service

Please check the details of the product warranty since fees will apply if you request services in the cases described below. If the date of product purchase cannot be confirmed, the product warranty period is calculated by “adding 90 days (product distribution period) to the date the product was shipped from the head office” as the date of purchase.

♣ In case it is not a breakdown

- When requesting services due to the customer’s inexperience in operating the product
- When providing an explanation of product functions or performing simple adjustments without disassembling the product
- When program update is requested
- When it is impossible to provide functions through wireless network due to the user’s unstable wireless environment

♣ In case of breakdown due to the customer’s negligence

- When breakdown occurred due to the customer’s mishandling (Dropping, impact, damage, improper operation by excessive force, etc.)
- Breakdown that occurred due to not using the designated power
- When breakdown occurs due to repairs performed by persons other than personnel designated by GIT Co., Ltd.
- Breakdown or product damage due to random changes or modifications made on a diagnostic cable/adaptor

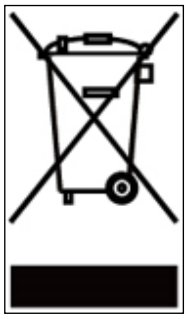
♣ Other cases

- Breakdown and damage to product due to natural disasters (fire, damage from sea water, flood damage, etc.)
- When wired or wireless communication failure occurs due to the worksite environment (electromagnetic interference, etc.)
- When a consumable part reached the end of its life

The symbol below is marked on the rear of the TPCI-II module. Please comply with the regulations for disposing of waste electric & electronic equipment. A user must comply with the regulations when replacing or disposing of batteries.

If this symbol is marked on old electrical and electronic equipment waste or packaging, do not treat such product as domestic waste.

Instead, it must be delivered to a collection area for recycling electric & electronic equipment.
Be sure to prevent potential adverse effects to the environment and public health by checking whether this product is disposed of properly.
If not, this product may be disposed of and processed inappropriately.
Recycling products helps preserve natural resources.
For details on recycling this product, please make an inquiry with the local city hall, domestic waste processing service, or dealer where the product was purchased.



▶ WEEE Sign