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TPMS80 TPMS Diagnosis, Active& Programming Tool



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IMPORTANT

Before operating or maintaining this unit, please read this manual carefully, paying extra attention to the safety warnings and precautions.

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Safety Information

For your own safety and the safety of others, and to prevent damage to the device and vehicles upon which it is used, it is important that the safety instructions herein presented throughout this manual be read and understood by all persons operating, or coming into contact with, the device.

There are various procedures, techniques, tools, and parts for servicing vehicles, as well as in the skill of the person doing the work. Because of the vast number of test applications and variations in the products that can be tested with this equipment, we cannot possibly anticipate or provide advice or safety messages to cover every circumstance. It is the automotive technician's responsibility to be knowledgeable of the system being tested. It is crucial to use proper service methods and test procedures. It is essential to perform tests in an appropriate and acceptable manner that does not endanger your safety, the safety of others in the work area, the device being used, or the vehicle being tested.

Before using the device, always refer to and follow the safety messages and applicable test procedures provided by the manufacturer of the vehicle or equipment being tested. Use the device only as described in this manual. Read, understand, and follow all safety messages and instructions in this manual.

Safety Messages

Safety messages are provided to help prevent personal injury and equipment damage. All safety messages are introduced by a signal word indicating the hazard level.

♠ DANGER

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury to the operator or to bystanders.

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury to the operator or to bystanders.

Safety Instructions

To prevent personal injury or damage to vehicles and/or the scan tool, read this instruction manual first and observe the following safety precautions at a minimum whenever working on a vehicle:

- Always perform diagnosis or service in a safe environment.
- Wear safety eye protection that meets ANSI standards.
- Keep clothing, hair, hands, tools, test equipment, etc. away from all moving or hot engine parts.
- Operate the vehicle in a well-ventilated work area: Exhaust gases are poisonous.
- Put blocks in front of the drive wheels and never leave the vehicle unattended while running tests.
- Use extreme caution when working around the ignition coil, distributor cap, ignition wires and spark plugs. These components create hazardous voltages when the engine is running.
- Keep a fire extinguisher suitable for gasoline / chemical / electrical fires nearby.
- Put the transmission in PARK (for automatic transmission) or NEUTRAL (for manual transmission) and make sure the parking brake is engaged.
- Always turn the ignition off before connecting/disconnecting the OBD II
 Cable to/from the TPMS tool; otherwise it may cause the Malfunction
 Indicator Light (MIL) to turn on.
- Refer to the user's manual for the vehicle being serviced and adhere to all diagnostic procedures and precautions. Otherwise personal injury or unneeded repairs may result.
- Keep the TPMS tool dry, clean, free from oil, water and grease. Use a mild detergent on a clean cloth to clean the outside of the TPMS tool when necessary.

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1 Using This Manual

This manual contains device usage instructions.

Some illustrations shown in this manual may contain modules and optional equipment that are not included in your system. Contact your sales representative for availability of other modules and optional tools or accessories.

Conventions

The following conventions are used.

Bold Text

Bold text is used to highlight selectable items such as buttons and menu options.

Example:

Tap **OK**.

Notes and Important Messages

Notes

A **NOTE** provides helpful information such as additional explanations, tips, and comments.

Example:

✓ NOTE

New batteries reach full capacity after approximately 3 to 5 charging and discharging cycles.

Important

IMPORTANT indicates a situation which, if not avoided, may result in damage to the test equipment or vehicle.

Example:

IMPORTANT

Keep the cable away from heat, oil, sharp edges and moving parts. Replace damaged cables immediately.

Hyperlink

Hyperlinks or links that take you to other related articles, procedures, and illustrations are active in electronic documents. Blue italic text indicates a selectable hyperlink and blue underlined text indicates a website link or an email address link.

Illustrations

Illustrations used in this manual are samples, and the actual testing screen may vary for each vehicle being tested. Observe the menu titles and onscreen instructions to make correct option selection.

2 Tool Information

Functional Description



Figure 2-1 CGSULIT TPMS80

- 1. Signal Put the CGSULIT sensor TS01 close to be programmed.
- 2. **LCD DISPLAY** displays the menus and test screens.
- 3. **N N BUTTON** cancels a selection (or action) from a menu or return to previous menu.
- 4. **OPSCROLL BUTTON** moves up through menu and submenu items in menu mode. When more than one set of data are retrieved, use

- this button to move up to previous screens for additional data. It is also used to view previous trouble code when viewing DTCs.
- 5. **Q** LEFT SCROLL BUTTON when scrolling through a screen of data or text, moves to previous character and views additional information on previous screens, if recorded data content covers more than one screen.
- 6. **DOWN SCROLL BUTTON** moves down through menu and submenu items in menu mode. When more than one set of data are retrieved, use this button to move down to next screens for additional data. It is also used to view next trouble code when viewing DTCs.
- 7. **Provides** help information.
- 8. **OPOWER BUTTON** long press the button to turn on/off the tool; or, short press the button to return to Home screen.
- 9. **RIGHT SCROLL BUTTON** when scrolling through a screen of data or text, moves to next character and view additional information on next screens, if recorded data content covers more than one screen.
- TEST BUTTON commences a TPMS Test or confirms selections on screen.
- 11. Y BUTTON confirms a selection (or action) from a menu.
- 12. **USB PORT** connects the TPMS tool to PC for software update, data printing or battery charging.
- 13. **OBD II CONNECTOR** connects the TPMS tool to the vehicle's Data Link Connector (DLC).

NOTE

Figures and illustrations, product's characteristics and functions, and included accessories in this User Manual are provided for reference only and may differ from actual product. Product design and specifications may be changed without notice.

Specifications

Table 2-1 Specifications

| Item | Description |
|---------|-----------------------------------|
| Display | TFT color display (320 x 240 dpi) |

| Item | Description | |
|-----------------|---|--|
| Power | 4.10 V Li-polymer battery | |
| Operating Temp. | -20°C to 60°C (-4°F to 140°F) | |
| Storage Temp. | -10°C to 45°C (14°F to 113°F) | |
| Dimensions | 215 mm (8.46") / 105 mm (4.13") / 37 mm (1.46") | |
| Weight | 0.39 kg (0.86 lb.) | |

Accessories Included

Please refer to the packing list for accessory details.

Icons

- 1. green changing internal block indicates battery charging.
- 2. \bowtie indicates there is data stored in the tool.
- 3. indicates battery volume.
- ← indicates USB communication with the computer is established.
- 5. Indicates magnet is required to activate TPMS sensor.
- 6. $P \downarrow -$ indicates deflation is required to activate TPMS sensor.
- 7. indicates wheels will be checked one by one.
- 8. ((- indicates the TPMS tool is sending signals to the tire sensor for activation and test in activation screen or indicates the sensor information is read by activation.
- 9. —indicates the tool communication with the vehicle's OBD II DLC is established or indicates the sensor information is read by OBD.

Keyboard

Use a mild nonabrasive detergent and a soft cotton cloth to clean the keypad and display. No solvents such as alcohol are allowed for device cleaning. Do not soak the keypad as the keypad is not waterproof.

Battery Charging

The TPMS tool has a 4.10 V built-in lithium-ion polymer rechargeable battery.

How to charge battery

To charge battery by USB cable via PC connection

- 1. Locate the USB port of the device.
- 2. Connect the device and the computer with the USB cable.

To charge battery by USB cable adapter

- 1. Locate the USB port of the device.
- 2. Connect the device and the power source with the USB cable adapter.

For optimum performance, always keep your tool sufficiently charged. It is recommended that you charge the tool for at least 2 hours before the first use.

⊘ NOTE

Only use the USB cable adapter included in our pack to charge this tool. The use of unapproved power supplies may damage your tool and void the tool warranty.

Power up by DLC

The tool can also be powered by the vehicle via OBD II cable connection to the vehicle Data Link Connector (DLC). Just follow the steps below to turn on the TPMS tool:

- Connect the OBD II cable to the TPMS tool.
- 2. Find DLC on vehicle.

X TIPS

A plastic DLC cover may be found for some vehicles and you need to remove it before plugging the OBD II cable.

- 3. Connect OBD II cable to the vehicle's DLC.
- 4. Power up the TPMS tool by pressing the **Power** button, and wait for the **Main Menu** to display.



Figure 2-2 Sample Main Menu Screen

⊘ NOTE

OBD II cable connection does not support battery charging.

3 TPMS Quick Mode

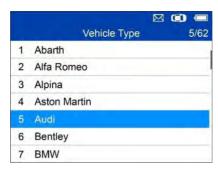
Perform basic TPMS functions through the Quick service mode.

Scan Sensor, Program Sensor, Relearn Procedure and Sensor Information.



Select test vehicle to start a TPMS service session.

Vehicle Identification



Select by Model



Select by Year

1. For vehicles using indirect TPMS:



Relearn Procedure Position relearn type: Stationary Relearn There are two minutes to match the first tire position and five minutes overall to match all four tire positions. If it takes longer, the matching process stops and must berestarted. Relearn Procedure: Indirect system, no TPMS sensors fitted. Reset Procedure: 1. Check TPMS warning light 2. Turn Ignition ON Back

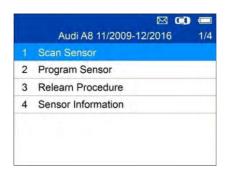
Follow the instructions displayed to perform **Relearn** for indirect TPMS.

2. For vehicles using direct TPMS:





Functions provided in **Quick Mode**: Scan All Sensor, Scan Single Sensor, Program Sensor, Relearn Procedure, and Sensor Information.



Hold the tool close to the sensor or close to the tire sidewall right above the sensor.

1. For first time use:



Press **Y** or **Trigger** to trigger the sensor.



The device is receiving data from the sensor.



Trigger Successful.

The ID, pressure, temperature and voltage of the sensor display on screen.



Failed.

Press Y or Trigger to try again.

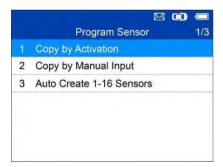
Program Sensor





Copy by Activation

This function is used to activate or trigger the original sensor and retrieve the ID of the sensor, and then write the original sensor ID into the new CGSULIT sensor TS01.



Press Y to select Copy by Activation. Place the tool near the sensor to be copied. If the sensor is still attached to the wheel, hold the tool close to the tire sidewall right above the sensor.





Press **Y** or **Trigger** to trigger the sensor.



Trigger Succeessful.

Original sensor ID displays on the screen.

Press **Trigger** to trigger again and press **Y** to program the original sensor ID into CGSULIT sensor.



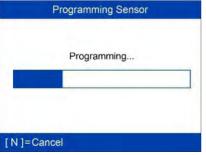
Trigger failed.

Press Y or Trigger to try again.



Place a new CGSULIT Sensor TS01 in the sensor slot or hold the top of the tool close to the sensor to program.

Sensor Programming



The programming function automatically begins.

| Programming Sensor | | | | | |
|--------------------|---------------------------|--|--|--|--|
| ID | 32006800 | | | | |
| PSN | D5642P2220135410 | | | | |
| Pressure | 0. 0 KPa | | | | |
| Temperature | 21.0℃ | | | | |
| Voltage | ОК | | | | |
| Frequency 433MHz | | | | | |
| Press any | Press any key to continue | | | | |

Once programmed, sensor and tire data will display.

| | | | | | nsor | |
|--|--|--|--|--|------|--|
| | | | | | | |
| | | | | | | |

Program Failed (-5).

Press any key to continue

Programming Sensor

No sensor detected.

Press any key to continue

Programming Sensor

3 sensors detected.

Make sure there is only 1 sensor nearby.

Press any key to continue

A failure message displays if the sensor fails to program. Press any key to continue. Ensure a CGSULIT sensor TS01 with the correct frequency is used. Try to program sensor again. The number in the brackets indicates the fault code, it can be used for CGSULIT technicians to quickly identify the fault.

No sensor detected.

Ensure the unit software is up to date.

Multiple sensor detected.

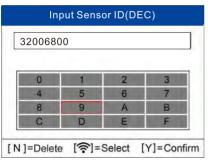
Ensure that only one sensor is close to the tool

Copy by Manual Input

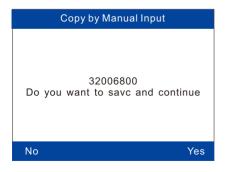
This function is used to manually input the original sensor ID and program it to new CGSULIT sensor TS01.

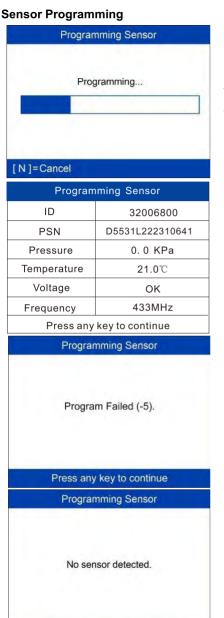






Press **Trigger** to select the numbers, press **N** to exit and once a number is selected, the **N** button can be used to delete the entered number. After all the numbers are entered, press **Y** to confirm.





Press any key to continue

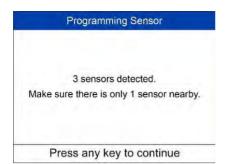
The programming function automatically begins.

Once programmed, sensor and tire data will display.

A failure message displays if the sensor fails to program. Press any key to continue. Ensure a CGSULIT sensor TS01 with the correct frequency is used. Try to program sensor again.

No sensor detected.

Ensure the unit software is up to date.

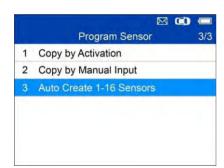


Multiple sensor detected.

Ensure that only one sensor is close to the tool

Auto Create 1-16 Sensors

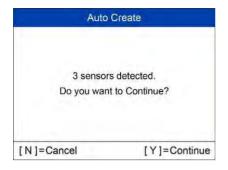
This function is used to auto create new unique ID(s) into 1-16 CGSULIT sensor (s).

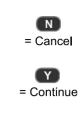


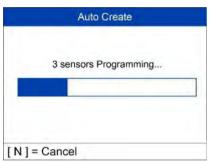
Place 1-16 CGSULIT TS01 sensor(s) close to the top of the tool.



The tool will automatically detect the sensors near the tool.



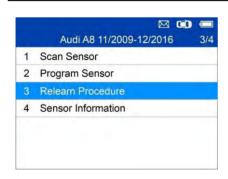






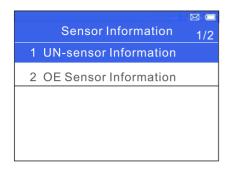
Once the sensors are successfully programmed, the sensor IDs and the PSNs (Product Serial Number) will display on the tool.

Relearn Procedure





CGSULIT Sensor Information



Place a CGSULIT sensor near the top of the tool and then press **Y**.



= Confirm

Relearn Procedure

Position Relearn Type: Automatic relearn
Relearn Procedure:

1. Inflate all tires to the pressure indicated on the placard

2. Press CAR/Vehicle function button

3. Select TIRE PRESSURE

MONITORING
4. Select INITIALIZE WHEELS (Select STORE CURRENT TIRE PRESSURE

Back

Read the Relearn Procedure carefully to complete the operation.



| UN-Sensor Information | | | | | |
|---------------------------|------------|--|--|--|--|
| Sensor ID | 2021770692 | | | | |
| Frequency | 433MHz | | | | |
| Voltage | 3.02V | | | | |
| Hardware Version | 7302 | | | | |
| Software Version | V05. 20 | | | | |
| Area Code/P_ID | GGGG/325L | | | | |
| PSN F5614K5451152145 | | | | | |
| Press any key to continue | | | | | |

Sensor Information

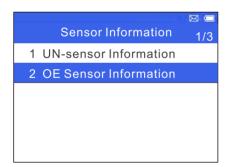




✓ NOTE

Area Code is the code used to identify the area of your tool for CGSULIT Support when you file a problem report.

OE Sensor Information





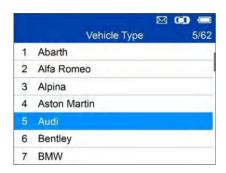
| OE Manufactuer | Continental |
|---------------------|-----------------------------|
| OE Frequency | 433MHz |
| Relearn Type | A/O |
| OE Part Number | LR031712 |
| Number On Sensor | S122780002E/T1227 80002C |

The tool will automatically display the information of the OE sensor mounted on the test vehicle.

4 TPMS Advanced Mode

The **Advanced** service mode performs additional TPMS functions: TPMS Diagnose, Program Sensor, Position Relearn and Information (OE and CGSULIT sensor data and vehicle OBDII port location diagram).

Vehicle Identification





Select by Model





Select by Year

1. For vehicles using indirect TPMS:





Relearn Procedure

Position relearn type: Stationary Relearn
There are two minutes to match the first tire
position and five minutes overall to match all
four tire positions. If it takes longer, the
matching process stops and must berestarted.
Relearn Procedure:
Indirect system, no TPMS sensors fitted.
Reset Procedure:
1. Check TPMS warning light
2. Turn Ignition ON

Back

Follow the Relearn procedure displayed for vehicles with indirect TPMS.

2. For vehicles using direct TPMS:







Functions provided in
Advanced Mode: TPMS
Diagnose, Program Sensor,
Position Relearn and
Information. For some vehicle,
a fifth option: Tire
Type/Pressure Section is
available.

TPMS Diagnose

This function is used to check TPMS and sensor status.





Trigger all sensors one by one (4 wheels or 5 wheels) in order for sensor status; Connect OBD cable for TPMS system Check when OBD Diagnose supported; Check ECU IDs, read DTCs and erase DTCs in OBD Diagnose.

TPMS Diagnose Guide

The TPMS Diagnose Guide will display if sensor activation is not performed before. Press any key to turn to the sensor activation menu.



If sensor activation is performed and there is data saved in the tool, a Clear Previous Data message displays. Press **No** to turn to the existing sensor activation menu and reactivate one sensor, then the tool will prompt you to connect OBD cable for ECU diagnosis, or press **Yes** to clear the previous data and reactivate the sensors.

Trigger/Activate Sensors

Follow the onscreen instructions to activate all the sensors mounted on the test vehicle.



Press **Trigger** to activate the sensor.



The tool is receiving data from the sensor.



Sensor activation failed.



Sensor activation successful.

Sensor ID displays on the left side of the bottom bar and the temperature displays on the right side of the bottom bar.



D icon indicates that a duplicate sensor ID has been read.



All sensors have been triggered. Display advances to connect OBD cable for diagnosis even if not all sensors have been successful activated.

Audi A8 11/2009-12/2016

Please connect OBD and turn ignition on.

[N]=Cancel [Y]=Continue

| | Sensor Status | | | | | | | |
|------|---------------------------|---------|-------|------|--|--|--|--|
| pos. | ID(DEC) | P.(Kpa) | T.(℃) | Bat. | | | | |
| FL | 2021560065 | 2.5 | 26 | ОК | | | | |
| FR | Untested | | | | | | | |
| FR | 2021560085 | 2.5 | 26 | ок | | | | |
| FL | 2021560012 | 2.5 | 26 | ОК | | | | |
| SR | 2021560006 | 2.5 | 26 | ОК | | | | |
| | Press any key to continue | | | | | | | |

Follow the onscreen instructions to connect the tool with the test vehicle via OBD II cable. Turn on the ignition. Press **N** to show the Sensor Status, or press **Y** to continue, and the tool will automatically read the sensor IDs and Data Trouble Codes (DTCs) present in the ECU.

The Sensor Status screen displays position, sensor ID, tire pressure, tire temperature and battery level of the activated sensors.

TPMS Status

Read IDs Successfully! Read DTCs Successfully! A message will display if IDs and DTCs have been read successfully.

OK

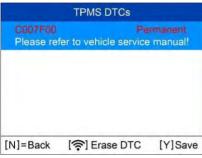
| TPMS Status | | | | | |
|-------------|---------------|-------------|------|--|--|
| Pos. | Pressure(Kpa) | Temp.(°C) | Bat. | | |
| FL | 2 | 26 | ОК | | |
| FR | 2 | 26 | ОК | | |
| RR | 2 | 26 | ОК | | |
| RL | 2 | 26 | Low | | |
| SP | 2 | 26 | ОК | | |
| [N]= | Exit | [<->]=PgUp/ | PgDn | | |

Pressure, temperature and battery level display on the second page.

Press N to exit.



Use Up and Down Arrow button to select the TPMS icon in the center of the graphed vehicle and press **Y** to view the DTCs.







Green signal and OBDII icons: the ECU ID matches Sensor ID.

Red signal and OBDII icons: the ECU ID does not match Sensor ID.

Red battery icon: low sensor battery Amber TPMS icon: DTC(s) present in the ECU

Press Y to view sensors data.

| | | TPMS S | Status | 1/2 | |
|----------|----------|----------|--------|------------|--|
| Pos. | | IC | (Hex) | | |
| FL | • | BF016471 | -080 | BF016471 | |
| FR | (i- | BF016350 | -080 | BF016350 | |
| RR | ? | BF016550 | -000 | BF016550 | |
| RL | · | BF016690 | =OBD | BF016690 | |
| SP | ÷ | BF016660 | -080 | BF016660 | |
| [N]=Exit | | | [<->] | =PgUp/PgDn | |

Positions, activated sensor IDs and ECU-registered IDs display on the screen.

Use **and to** view more information.



Press **OK** to continue.



The tool will automatically re-check the ECU to ensure all DTCs have been deleted.

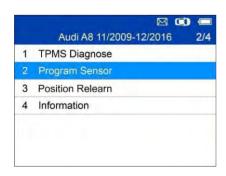


Erase DTCs Success.

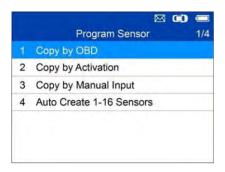


If no DTC(s) is present in the ECU, the middle TPMS icon displays gray and a "No DTCs" message displays at the right bottom of the screen.

Program Sensor



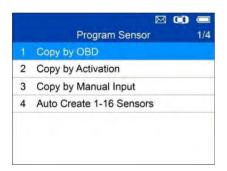




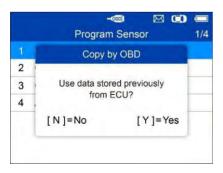
There are four ways to program CGSULIT sensors: Copy by OBD, Copy by Activation, Copy by Manual Input and Auto Create 1-16 Sensors.

Copy by OBD

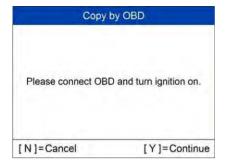
Copy the sensor ID from ECU into a CGSULIT sensor.



Press Y to confirm selection. If no TPMS diagnosis is performed before, the tool will prompt the user to connect OBD cable and then read information from the ECU. If TPMS diagnosis is performed, then the next screen displays.



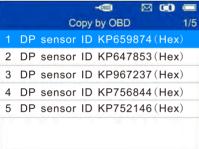
Press Y to use the previously stored data, and then the sensor IDs saved in the ECU displays; or press N to use new data, and then the following screens display.



Follow the onscreen instructions to connect the tool with the test vehicle via the OBD II cable. Press **Y** to continue, or press **N** to exit.



The tool will automatically read data from the ECU.



The sensor IDs saved in the ECU display on the screen.

Place one CGSULIT sensor near the top of the tool.

Select one sensor ID and press **Y** to program the new CGSULIT sensor.

Programming FL Sensor

No sensor detected.

Press any key to continue

No sensor detected.

Press any button to continue.

Programming FL Sensor

3 sensors detected.

Make sure there is only 1 sensor nearby.

Press any key to continue

Multiple sensors detected.

Place one sensor close to tool, and press any key to continue.

Programming FL Sensor

Programming...

One sensor is detected.

The programming function automatically proceeds.

[N]=Cancel

| Programming Sensor | | | |
|--------------------|-------------------|--|--|
| ID | DP565794 | | |
| PSN | DP4145P2236002310 | | |
| Pressure | sure 0.0 KPa | | |
| Temperature | 21.0 ℃ | | |
| Voltage | OK | | |
| Frequency | Frequency 433MHz | | |
| Press an | y key to continue | | |

Programming successful.

Sensor ID, PSN, Pressure, Temperature, Frequency and Voltage are displayed on the screen.

Programming FL Sensor

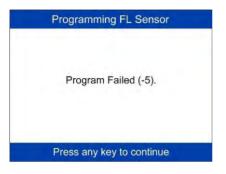
Program Failed (-5).

Programming Failed.

Press any key to continue.

Press any key to continue

By using **Copy by OBD**, the sensor ID that is retrieved from TPMS ECU is programmed to the new CGSULIT sensor. There is no need to perform the **Relearn** function to write the ID into the ECU when the new programmed sensor has been put in the same position. The **Copy by OBD** programming method, if available, is recommended to program new CGSULIT sensor as there is no need for Relearn.



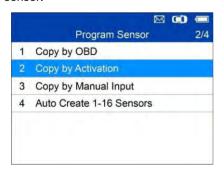
Programming Failed.

Press any key to continue.

By using **Copy by OBD**, the sensor ID that is retrieved from TPMS ECU is programmed to the new CGSULIT sensor. There is no need to perform the **Relearn** function to write the ID into the ECU when the new programmed sensor has been put in the same position. The **Copy by OBD** programming method, if available, is recommended to program new CGSULIT sensor as there is no need for Relearn.

Copy by Activation

This function is used to activate the original sensor and retrieve the ID of the sensor, and then program the original sensor ID to the new CGSULIT sensor.



Select Copy by Activation from programming list. Activate or Trigger sensor to be copied.



Trigger successful.

Original sensor ID displays on screen.

Press **Y** to program the original sensor ID to CGSULIT sensor.

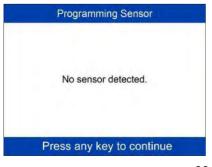


Trigger failed.

Press Y or Trigger to try again.



Place a new CGSULIT sensor near the top of the tool to program.



No sensor detected.

Press any button to continue.

Programming Sensor

No sensor detected.

No sensor detected.

Press any button to continue.

Press any key to continue

Programming Sensor

3 sensors detected.

Make sure there is only 1 sensor nearby.

Press any key to continue

Multiple sensor detected.

Place **one** sensor close to top of tool, and press any button to continue.

Programming Sensor

Programming...

One sensor is detected.

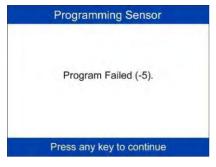
The programming function automatically proceeds.

[N]=Cancel

| Programming Sensor | | |
|--------------------|-------------------|--|
| ID 20210012 | | |
| PSN | D2210K22012013612 | |
| Pressure | 0.0 KPa | |
| Temperature | 21.0 ℃ | |
| Voltage | OK | |
| Frequency 433MHz | | |
| Press an | y key to continue | |

Programming succeeded.

Sensor ID, PSN, Pressure, Temperature, Frequency and Voltage are displayed on the screen.



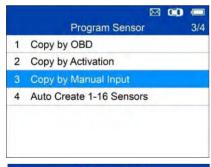
Programming Failed.

Press any key to continue.

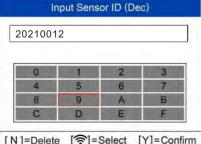
By using **Copy by Activation**, the sensor ID that is retrieved from activated sensor is programmed to the new CGSULIT sensor. Because the ID of the original sensor and the new CGSULIT sensor are the same and the ID is already registered to the vehicle ECU, there is no need to perform the **Relearn** function when the new programmed sensor has been attached to the same wheel.

Copy by Manual Input

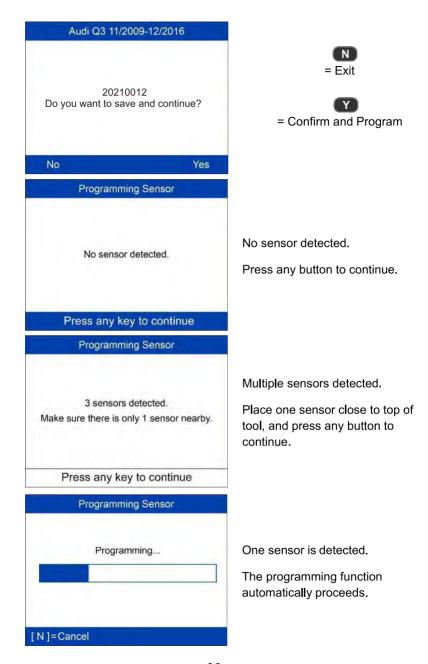
This function is used to manually input the original sensor ID and program it to a new CGSULIT sensor.







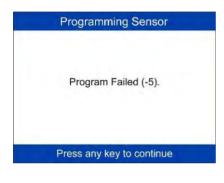
Press **Trigger** to select the numbers, press **N** to exit and once a number is selected, the **N** button can be used to delete the entered number. After all the numbers are entered, press **Y** to confirm.



| Programming Sensor | | | |
|--------------------|-------------------|----|----------|
| ID 20210012 | | ID | 20210012 |
| PSN | D2103P113500302 | | |
| Pressure | 0.0 KPa | | |
| Temperature | 21.0 ℃ | | |
| Voltage | OK | | |
| Frequency 433MHz | | | |
| Press an | y key to continue | | |

Programming successful.

Sensor ID, PSN, Pressure, Temperature, Frequency and Voltage are displayed on the screen.



Programming Failed.

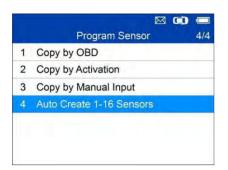
Press any key to continue.

The **Copy by Input** programming method uses the ID of the original sensor that is already stored within the TPMS ECU and therefore does not require the sensor be relearned if the new programmed sensor has been put in the same wheel location.

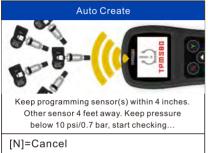
The **Copy by Input** programming method uses the ID of the original sensor that is already stored within the TPMS ECU and therefore does not require the sensor be relearned if the new programmed sensor has been put in the same wheel location.

Auto Create 1-16 Sensors

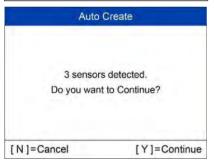
This function is used to auto create unique ID(s) to 1-16 CGSULIT sensor (s). A random ID will be created for the CGSULIT sensor. This new ID differs from the ID stored in the TPMS ECU, therefore the sensor will have to be **Relearned** to the TPMS ECU.



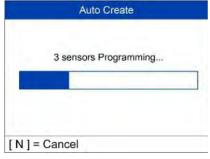
Place 1-16 CGSULIT sensor (s) close to the top of the tool.



The tool will automatically detect the sensors near the tool.







| Auto Create | | | |
|-------------|----------|-----------------|--|
| NO | ID | PSN | |
| | 58GGK52B | F1537G660001647 | |
| 02 | 64113580 | F1537G660001690 | |
| 03 | 45843823 | F1537G660001622 | |
| | | | |
| | | | |
| | | OK | |

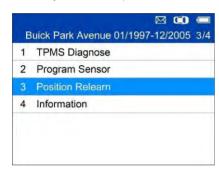
Once the sensors are successfully programmed, the sensor IDs and the PSNs will display on the tool.

Position Relearn

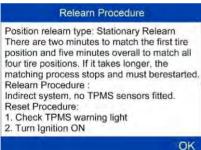
Generally speaking, there are three ways for position relearn: **Stationary Relearn**. **Automatic Relearn** and **OBD Relearn**.

Stationary Relearn

Stationary Relearn requires the vehicle be placed in the "Learn Mode".







Read the Relearn Procedure carefully and press **Y** to continue.



Follow the onscreen instructions to activate all the sensors mounted on the vehicle.

Note: all the sensors should be successfully activated without any duplicated IDs.

Relearn Procedure Position relearn type: Stationary Relearn There are two minutes to match the first tire position and five minutes overall to match all four tire positions. If it takes longer, the matching process stops and must berestarted. Relearn Procedure: Indirect system, no TPMS sensors fitted. Reset Procedure: Check TPMS warning light Turn Ignition ON

Read the Relearn Procedure carefully and press **Y** to continue.



Follow the onscreen instructions to activate all the sensors mounted on the vehicle.

Note: all the sensors should be successfully activated without any duplicated IDs.



Once all sensors are successfully activated, then follow the Relearn Procedure to perform Stationary Relearn.

Automatic Relearn

For some vehicles, the Relearn function can be completed by driving. Refer to the on-screen Relearn Procedure for the exact details of the process.





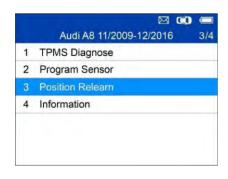


Follow the Relearn Procedure to perform Automatic Relearn.

OBD Relearn

The OBD Relearn function allows the TPMS80 to directly write the TPMS sensor IDs to the TPMS module.

To perform Relearn, activate sensors on FL, FR, RR and RL wheels.



If there is sensor triggered, the tool will ask whether to clear the saved data, press N to use the saved data and reactivate one sensor, the tool will instruct you to connect OBD cable and then perform OBD Relearn; or press Y to clear the data and display the Relearn Procedure. The Relearn Procedure displays when no sensor is triggered.

Relearn Procedure

Position Relearn Type: OBD relearn Relearn Procedure:

- Properly install tire pressure sensors.
 Ensure all tires are inflated to the pressure listed on the tire placard. (located in the door jam of your vehicle)
 Starting with the I E tire use the
- (located in the door jam of your vehicle 3. Starting with the LF tire, use the TPMS tool to trigger each sensor in the following order: LF, RF, RR, LR & full size spare (if equipped).

Read the Relearn Procedure carefully and press **Y** to continue.

OK



Press [🛜] to trigger FL Sensor

If no sensor activation is not performed before, follow the onscreen instructions to activate all the sensors mounted on the vehicle. Note: all the sensors should be successfully activated without any duplicated IDs.



Once all sensors are successfully activated, the tool will prompt users to perform OBD Relearn, if supported by the vehicle.

OBD Relearn

Please connect OBD and turn ignition on.

[N]=Cancel [Y]=Continue

Follow the onscreen instructions to connect the tool and vehicle via OBD cable and turn the ignition on. Press **Y** to continue.

| Writing sensor ID to ECU | The tool is writing sensor ID to ECU, please wait. | |
|---------------------------|---|--|
| [N]=Exit | | |
| OBD Relearn | | |
| OBD Releam Failed. | OBD Relearn Failed. Press any key to continue. | |
| Press any key to continue | | |
| OBD Relearn | | |
| OBD Releam Success, | OBD Relearn Successful. The sensor IDs have been written to the ECU and the tool will automatically erase the DTCs present in the ECU. | |
| OBD Relearn | OBD Relearn | |
| Erasing DTCs | Reading DTCs | |

OBD Relearn



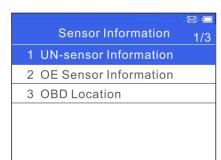
When all DTCs have been deleted, the TPMS icon displays gray. Press any key to continue.

Information





CGSULIT sensor Information



Place a CGSULIT sensor near the top of the tool and press **Y** to continue.



| UN-sensor Information | | | |
|-----------------------|----------------|--|--|
| Sensor ID | 2021333156 | | |
| Frequency | 433MHz | | |
| Voltage | ge 3.02 V | | |
| Hardware Version | 7302 | | |
| Software Version | V05.20 | | |
| Area Code/P_ID | P_ID FFFF/005e | | |
| PSN D2690P110225001 | | | |
| Press any k | ey to continue | | |

OE Sensor Information

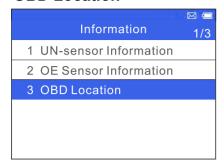
| | Sensor Information | ⊠ (□ 2/3 |
|---|-----------------------|------------------|
| 1 | UN-sensor Information | |
| 2 | OE Sensor Information | |
| 3 | OBD location | |
| | | |
| | | |
| | | |

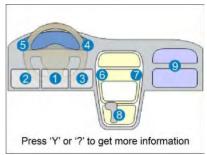


| OE Sensor Information | | |
|-----------------------|----------------------------|--|
| OE manufactuer | Continental | |
| OE Frequency | 433Mhz | |
| Relearn Type | A/O | |
| OE Part Number | LR031712 | |
| Number On Sensor | F00361102D/F1116 60006C | |
| | OK | |

The tool will display the information of the OE sensor for the selected vehicle.

OBD Location





Tire Type/Pressure Selection

If all TPMS faults are cleared and the four tires are inflated to the reference pressure listed on the placard, but the TPMS MIL is still on, you may need to use this function to select your tire type and set the right tire pressure value.



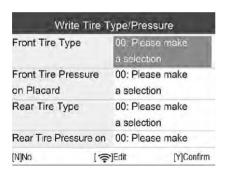
Read Tire Type/Pressure

Select **Read Tire Type/Pressure** and press **Y** to read the tire type and pressure of the test vehicle.

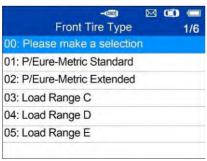
| Read Tire Type/Pressure | | |
|-------------------------|--|--|
| Standard Load | | |
| 208kPa/30psi | | |
| Load Range C | | |
| 12850kPa/ 1876psi | | |
| | | |

Press **Save** to save the reading for later review, or press **Back** to exit without saving.

Write Tire Type/Pressure



Select the item you want to change and press **Trigger** to enter the edit menu (Take Front Tire Type as an example).



Use the **UP/DOWN** button to select the correct tire type and press **Y** to confirm and exit.

| Write Tir | e Type/Pres | sure | |
|---------------------------------------|--------------------------|-----------------------------|--|
| Front Tire Type | 01: P/Eu | | |
| Front Tire Pressure on Placard | 00: Pleas a selection | | |
| Rear Tire Type | | 00: Please make a selection | |
| Rear Tire Pressure on 00: Please mail | | se make | |
| [N]No [| ⊋]Edit | [Y]Confirm | |

Move to the next item: Front Tire Pressure on Placard, and press the Trigger button to edit.



Use the **UP/DOWN** button to select the correct tire pressure on placard and press **Y** to confirm and turn to the previous menu.

After all the changes are completed, press **Y** to confirm and exit, or press **N** to exit without saving the changes.

5 Miscellaneous

ToolKit

Test strength of remoteless key fob signal or unlock ECU for Toyota vehicles.

1. Select **ToolKit** from the Main Menu and press the **Y** button to confirm.



Figure 5-1 Sample ToolKit Selection Screen

The screen displays as below, select RKE & RF Monitor and press Y to confirm test strength of remoteless key fob.

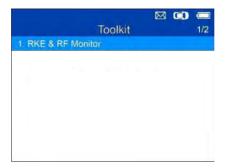


Figure 5-2 Sample RKE & RF Monitor Menu

3. Hold the key fob close to the tool and press the function buttons on key fob to test. If the button works and the key fob is sending a signal, the tool will beep and the screen displays as below. If the button does not work, the tool will do nothing. To make sure each button is working properly, please test each button in turn.

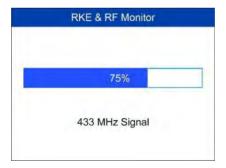


Figure 5-3 Sample Receive Signal Screen

- The progress bar indicates the approximate signal strength of the key fob.
- The stronger the signal, the higher the beep tone.
- The tool tests only 315MHz and 433MHz key fobs.

Latest Test

The **Latest Test** function saves the route of the last test. User can select this function to guick access the last test record and proceed testing.

Review Data

The **Review Data** function enables users to view and print saved TPMS DTCs and the tire type and pressure information.

My Device

The **My Device** function enables users to update the software, view or change device settings and view software and hardware versions.



Figure 5-4 Sample My Device Menu

Update

This function allows you to update the scan tool software through your computer by installing the **TPMS80 Update Assist**. You can use **Windows** -based computer to download the suitable version from the www.cgsulit.com website and proceed.

The update procedures for the Windows versions of the CGSULIT Update Assist are the same, and the Windows version is taken as an example here.

Connect the tool to a Windows-based computer using the supplied USB cable, power on the tool.

Follow the update procedure to finish updating.

- 1. Download the www.cgsulit.com and install it onto your Windows-based computer.
- 2. Run the TPMS80 Update Assist on the computer.
- 3. Select **Update** on the My Device Menu to enter **Update Mode**.



Figure 5-5 Sample Update Mode

 The TPMS80 Update Assist will automatically detect the connected device's serial number and turn to the Update menu directly, then user can select the files to install.



Figure 5-6 Sample Update Window

2. When the update is completed, a Program Update End screen displays on the scan tool.



Figure 5-7 Sample Program Update End Screen

View or Delete Programs

To view the list of installed programs or to delete an installed program, please follow these steps:

- 1. Click on the **Installed** tag entry and the list of installed programs displays.
- 2. Select the program(s) that you would delete.



Figure 5-8 Sample Delete Window

- 3. Click the **Uninstall** button at the end of the program you want delete, a confirmation message will display.
 - Click Yes to delete the program(s) selected, or No to cancel the action.
 - ♦ The deleted program will be added to the end of program list on the Updates Available page, if you wish to reinstall programs.

Setting

The tool allows you to make the following adjustments and settings.

- 1. **Market**: Selects the operating region of the tool.
- 2. Language: Selects the operating language of the tool.
- 3. **ID Format**: Sets the ID display to Hexadecimal, Decimal or Auto.
- 4. **Pressure Unit**: Sets the pressure unit in kPa, Psi or Bar.
- Temperature Unit: Sets the temperature unit in degrees to Celsius or Fahrenheit
- 6. **Distance Unit**: Sets the distance unit in km or mile.
- 7. **Beep Set**: Turns on/off key-press beep.
- 8. **Power-off**: Sets the amount of time of inactivity before the tool automatically power off.
- 9. **Date and Time**: Sets date and time on tool.

★ TIPS

Tool is set to default settings until changes are made.

To Enter the Setting Menu

From the **Main Menu**: Select **Setting** and press the **Y** button. The **Setting** menu displays as below.



Figure 5-12 Sample System Setup Screen

Market

🔅 TIPS

The default market selection depends on the area the tool is sold.

- From System Setup screen, use the UP/DOWN scroll button to select Market, and press the Y button.
- Use the LEFT/RIGHT scroll button to select the desired market or tool
 operating region and press the Y button to save your selection and return
 to previous menu.

Language

X TIPS

English is the default language.

- 1. From **System Setup** screen, use the **UP/DOWN** scroll button to select **Language**, and press the **Y** button.
- 2. Use the **UP/DOWN** scroll button to select the desired language and press the **Y** button to save your selection and return to previous menu.

ID Format

- From System Setup screen, use the UP/DOWN scroll button to select ID Format, and press the Y button.
- From ID Format screen, use the LEFT/RIGHT scroll button to select the desired ID format.

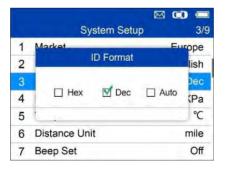


Figure 5-13 Sample ID Format Screen

 Press the Y button to save your settings and return to previous menu, or press the N button to exit without change.

Pressure Unit

- From System Setup screen, use the UP/DOWN scroll button to select Pressure Unit, and press the Y button.
- 2. From **Pressure Unit** screen, use the **LEFT/RIGHT** scroll button to select the desired unit: **kPa**, **Psi** or **Bar**.



Figure 5-14 Sample Pressure Unit Screen

 Press the Y button to save your settings and return to previous menu, or press the N button to exit without change.

Temperature Unit

- 1. From **System Setup** screen, use the **UP/DOWN** scroll button to select **Temperature Unit**, and press the **Y** button.
- 2. From **Temperature Unit** screen, use the **LEFT/RIGHT** scroll button to select the desired unit of temperature.

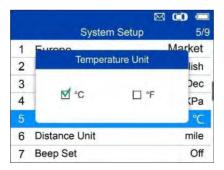


Figure 5-15 Sample Temperature Unit Screen

 Press the Y button to save your settings and return to previous menu, or press the N button to exit without change.

Distance Unit

- From System Setup screen, use the UP/DOWN scroll button to select Distance Unit, and press the Y button.
- 2. From **Distance Unit** screen, use the **LEFT/RIGHT** scroll button to select the desired unit of distance: **km** or **mile**.

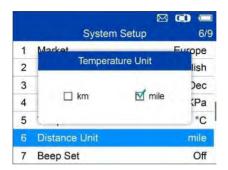


Figure 5-16 Sample Distance Unit Screen

3. Press the **Y** button to save your settings and return to previous menu, or press the **N** button to exit without change.

Beep Set

This function allows you to turn on/off the built-in speaker for key pressing.

- From System Setup screen, use the UP/DOWN scroll button to select Beep Set, and press the Y button.
- From Beep Set menu, use the LEFT/RIGHT scroll button to select ON or OFF to turn on/off the beep.

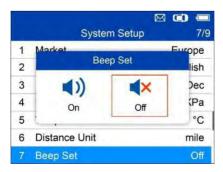


Figure 5-17 Sample Beep Set Screen

3. Press the **Y** button to save your selection or the **N** button to exit without change.

Power-off

- 1. From **System Setup** screen, use the **UP/DOWN** scroll button to select **Power-off**, and press the **Y** button.
- Press UP/DOWN scroll button to increase or decrease the amount of time of inactivity before the tool automatically powers off. Press the Y button to confirm your change or the N button to exit without change.



Figure 5-18 Sample Auto Power-off Screen

✓ NOTE

- 1. Before the tool powers off automatically, it will save all the TPMS test data. Next time when the tool is powered on, you may retrieve the recorded data or return to the last operation.
- 2. When using external power, the scan tool stays on until turned off. When using internal battery power, the scan tool turns off automatically after a set time of inactivity.

Date and Time

This function sets time and date on tool.

- From System Setup screen, use UP/DOWN scroll button to select Date and Time, and press the Y button to confirm; wait for the Date and Time screen to display.
- Use UP/DOWN scroll button to increase or decrease the value and LEFT/RIGHT scroll button to select the item to change.



Figure 5-19 Sample Date and Time Screen

About

This function allows viewing of tool data such as serial number and software version number of the tool.

- From System Setup screen, use the UP/DOWN scroll button to select About, and press the Y button; wait for the About screen to display.
- 2. View tool information on screen. Press the **N** button to exit.



Figure 5-20 Sample About Screen

Print

To print out the data saved in the device, you will need the followings:

- ✓ TPMS80 tool
- ✓ computer with USB ports
- ✓ USB cable

The **Print Data** function allows printing of TPMS DTC recorded data. Connect the tool and the computer with the supplied USB cable.

- Note: the print function is not available on Mac-based computer for the present.
 - Download the CGSULIT Update Assist PC Suite from <u>www.cgsulit.com</u> , and install it onto your computer.
 - 2. Connect the tool to the computer with the supplied USB cable.
 - 3. Run CGSULIT Printer software on computer.
 - 4. Select Review Data function in Main Screen of the TPMS tool. In data menu screen, use the UP/DOWN scroll button to select the data you want to print. Wait for the reviewing window to display, and then select Print function by pressing the Y button. The selected file will be uploaded to your computer. For more detailed instructions, please refer to Review Data on page 50.
 - 5. The selected data will display on the textbox. Select the appropriate function key on the right to execute one of the following operations:
 - Print print all data in the textbox to a printer connected to your computer.
 - Clear delete data in the textbox.

6 Warranty and Service

Limited One Year Warranty

Shenzhen Sunite Technology Co., Ltd(the Company) warrants to the original retail purchaser of this TPMS Diagnostic Device that should this product or any part thereof during normal usage and under normal conditions be proven defective in material or workmanship that results in product failure within 1 year period from the date of purchase, such defect(s) will be repaired, or replaced (with new or rebuilt parts) with Proof of Purchase, at the Company's option, without charge for parts or labor directly related to the defect(s).

The Company shall not be liable for any incidental or consequential damages arising from the use, misuse, or mounting of the device. Some states do not allow limitation on how long an implied warranty lasts, so the above limitations may not apply to you.

This warranty does not apply to:

- Products subjected to abnormal use or conditions, accident, mishandling, neglect, unauthorized alteration, misuse, improper installation or repair or improper storage;
- 2) Products whose mechanical serial number or electronic serial number has been removed, altered or defaced;
- Damage from exposure to excessive temperatures or extreme environmental conditions;
- Damage resulting from connection to, or use of any accessory or other product not approved or authorized by the Company;
- 5) Defects in appearance, cosmetic, decorative or structural items such as framing and non-operative parts.
- 6) Products damaged from external causes such as fire, dirt, sand, battery leakage, blown fuse, theft or improper usage of any electrical source