

Model:GJ002



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TPMS - Setup Guide



FCC ID:2ATCK-TPMSTOOL
IC:25126-TPMSTOOL

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WARNING:

Risk of explosion if battery is replaced by an incorrect type.

Never attempt to recharge conventional dry cells.

Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

IMPORTANT:

When replacing the batteries or when disposing of the unit, always comply with applicable laws relating to the disposal of batteries. Please place them in a proper disposal container to ensure that they are eliminated safely and in an environmentally friendly way.

INTRODUCTION OF TPMS Tool

GJ002 TPMS tool belongs to the truck system, Handle tool RF signal transmission frequency is 433.92MHz, Transmit power $\geq -20\text{dbm}$, TPMS tool be Use with the transmitter, canbus, Trailer BOX, ID BOX, Mainly used for TPMS system debugging. For the transmitter, the TPMS tool can detect the transmitter's voltage, air pressure, temperature and other information. For the canbus, the tool can receive vehicle ID and information and perform ID learning function, standard barometric value setting function, and data download function.

Intro: Programming CANbus With SmarTool



Figure 1

1. These instructions apply only to Valor CANbus Transceivers (Figure 1) that require a Valor SmarTool for sensor programming.

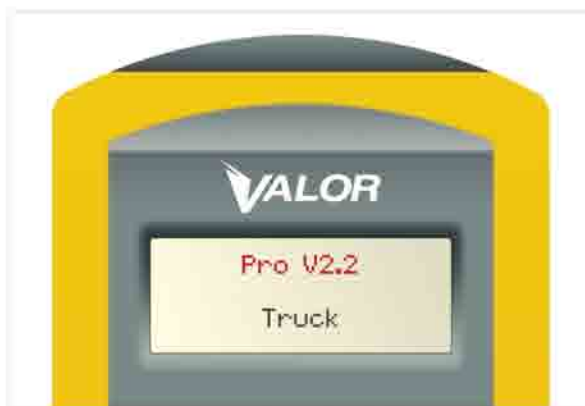


Figure 1A

2. The SmarTool must be updated to the latest software version (Pro 2.2 or higher). To check the software version on your SmarTool simply press the on/off button. The firmware version of the device will display on screen Figure 1A.

Main Menu



Figure 2

1. Once the SmarTool is turned on, the Start menu should be the same as that shown in **Figure 2**.

2. This is the home screen and it lists 7 possible selections as you scroll down the menu using the up/down arrow keys.

- Sensor 1/7
- Vehicle ID 2/7
- ID Learning 3/7
- Check ID 4/7
- Baseline 5/7
- Download 6/7
- System Set 7/7

SmarTool Setup



Figure 3



Figure 4

These instructions are for **first use only** to setup the SmarTool:

1. In main menu scroll to "System Set" (Item 7/7)
2. Press ENTER
3. Set up units of measure, select "Set Unit" (C/PSI)
4. Press ENTER
5. Default settings are in BAR/Celsius (BC), to switch to PSI/Fahrenheit (PF) use the up/down arrow (Figure 3)
6. Press ENTER to select (unit will "beep" to confirm)
7. Press ESC to return to the Setting screen
8. To set up the number of axles, select "Set Axle" (Figure 4)
9. Press ENTER
10. Use up down arrow keys to select number of axles
11. Press ENTER once (note: Screen doesn't change)
12. Press ESC twice to return to Main Menu

***Note:** If programming TempTrac, please refer to the *TempTrac Setup Guide*.

System Setup



Figure 5

The system setup requires the following steps:

1. Read CANbus ID
2. Read Sensor ID/Set positions
3. Format Valor CANbus memory
4. Program Valor CANbus transceiver
5. Confirm programming

Turn to next page to begin Step 1.

STEP 1

STEP 1 - Read CANbus ID

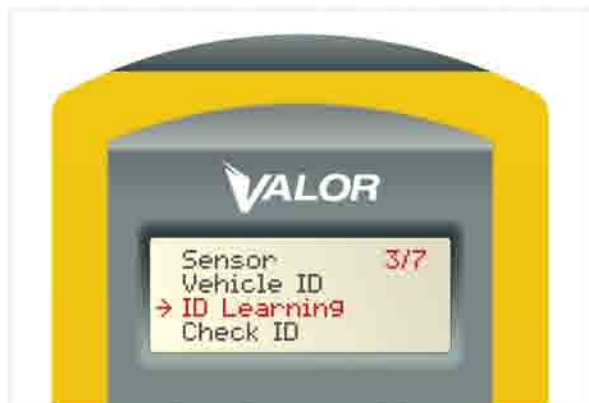


Figure 6

1. In Main menu scroll to "ID Learning" (item 3/7). (Figure 6)
2. Press ENTER

STEP 1.1



Figure 7

1. In the "ID Learning" menu, select "Read ID." (Figure 7)
2. Press ENTER

STEP 1

STEP 1.2



Figure 8

1. Position the SmarTool directly over the Valor CANbus transceiver.
2. With the cursor arrow → positioned next to "Vehicle ID:" (Figure 8) turn the power to the Valor CANbus transceiver OFF and back ON. (I.e. vehicle ignition or power interrupt button on Valor harness (Figure 8A).
3. DO NOT PRESS THE ENTER BUTTON on the SmarTool.
4. The Vehicle ID number will populate automatically. (Figure 8B)



Figure 8A



Figure 8B

STEP 2

STEP 2 - Read Sensor ID/Set Positions



Figure 9

1. Using the up/down arrow buttons, select the tire position you want to program. Once the arrow → is in the selected position (Figure 9), go to the corresponding tire on the vehicle.

Example: If programming 1–A to the left front tire, position the SmarTool approx 1 inch from the side of the tire you wish to scan (sensors are normally installed near the valve stem).

2. Press ENTER
3. A series of zeros will scroll across the SmarTool indicating a search for sensor. When it locates the sensor, the SmarTool will beep once. (Figure 10)

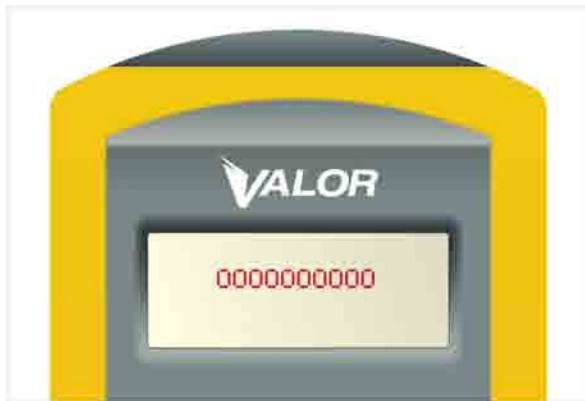


Figure 10

STEP 2

STEP 2.1



Figure 11

1. Once it locates the sensor, the SmarTool will display the ID number in the tire position field selected by the operator.
2. If performing a complete tire installation, be sure to repeat this step for each tire before moving to the next step.
3. Once all Sensor ID numbers (tires) have been scanned/ loaded, press ESC on the SmarTool and return to the "ID Learning" menu. Return to the vehicle's cab.
4. ***Note:** When programming a Valor CANbus transceiver for an axle with only two wheel positions (tires) program the sensor ID numbers in positions – A for left side and B for the right side. (Figure 11)

By positioning the sensors this way the graphical display on the Ametek gauge will appear with 2 wheel positions on the axle, not 4. For axles with 4 wheel position (tires), program the sensor ID numbers as normal: outside left A, inside left B, inside right C, outside right D.

STEP 3

STEP 3 - Format Valor CANbus memory



Figure 12



Figure 13

1. To ensure there is no existing data in the Valor CANbus transceiver, you must format/clear the device memory.
*Note: this step is performed only upon first use.
2. Please ensure that the power to the Valor CANbus transceiver is turned OFF.
3. Use the up/down keys on the SmarTool to move the cursor arrow → to the "Clear ID" option in the "ID Learning" menu. (Figure 12)
4. Press ENTER
5. In the "Clear ID" sub menu, move the cursor arrow → to the wireless option. (Figure 13)
6. Turn the power to the Valor CANbus transceiver back ON, it will beep once. Upon hearing the beep, position the SmarTool directly over the Valor CANbus transceiver and press ENTER.

STEP 3

STEP 3.1



Figure 14

1. The SmarTool will display "Clear..." (Figure 14)
2. If there was any previously stored ID data on the Valor CANbus transceiver, the SmarTool will clear it and the screen will display "Succeed." (Figure 15)
3. If the SmarTool displays "Failed," proceed to next step.
4. **Note:** this message does **not** mean setup has failed, it simply means there was no previous stored data to clear.
5. The Valor CANbus is now ready for programming



Figure 15

STEP 4

STEP 4 - Program Valor CANbus Transceiver

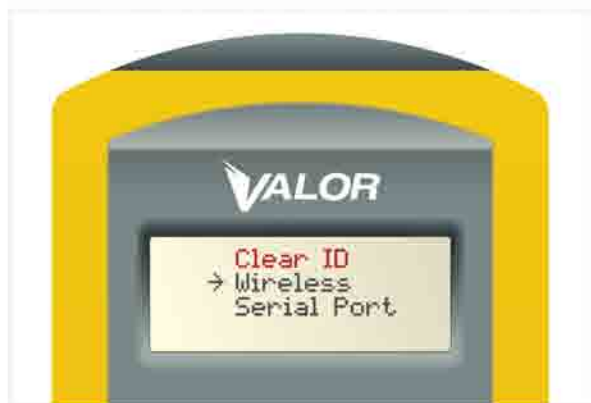


Figure 16

1. The SmarTool will default back to the "Clear ID" screen. (Figure 16)
2. Still holding the SmarTool directly over the Valor CANbus transceiver, press ESC to return to the "ID Learning" menu (Figure 17).
3. Scroll up and select the "Transmit" option (Figure 18)
4. Press ENTER

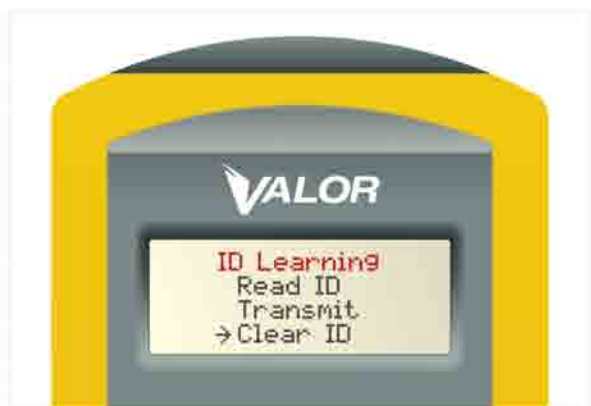


Figure 17



Figure 18

STEP 4

STEP 4.1

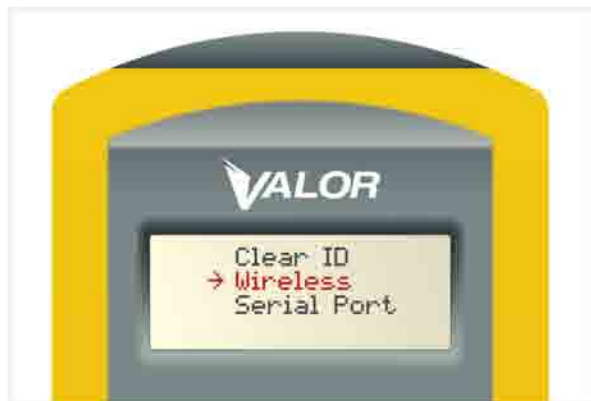


Figure 19

1. The cursor arrow should be next to the “Wireless” option. (Figure 19)
2. Press ENTER
3. The SmarTool will begin transmitting the sensor ID information stored on the hand-held to the Valor CANbus transceiver. “Transmitting” will appear on screen.

STEP 4.2



Figure 20

1. Once the SmarTool has completed transmitting the information to the Valor CANbus transceiver, the screen will display “Succeed.” (Figure 20)
2. If the SmarTool displays “Failed,” proceed to the programming confirmation outlined in Step 5.

STEP 5

STEP 5 - Confirm Programming



Figure 21

1. To check if the new sensor ID information has been uploaded correctly, go to the Main menu on the SmarTool and select option "Check ID" "4/7." (Figure 21)
2. Position the SmarTool directly over the Valor CANbus and press ENTER.
3. The screen will display "Waiting Rec," (Figure 22) Restart the Valor CANbus (power OFF and back ON).
4. The SmarTool will display the sensor ID (tires) by position assigned during programming. (Figure 23)

Example:

1-A 01011A2D

1-B 0101243R

Showing all position with sensors.



Figure 22



Figure 23

STEP 6

STEP 6 - Baseline Setup

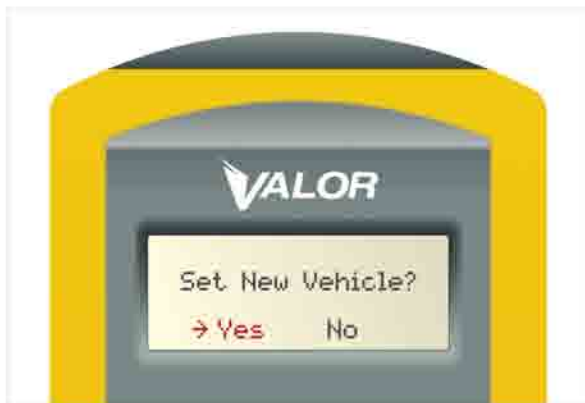


Figure 24



Figure 25



Figure 26

The following steps are used to set the tire pressure baseline:

1. Please insure that power to the CANbus is OFF
2. In the Main Menu of the SmarTool scroll to "Baseline" (item 5/7)
3. Press ENTER
4. Select "Set"
5. Press ENTER
6. To setup new vehicle, select "Yes" (Figure 24)
7. Press ENTER
8. "Restart the device" appears on the screen indicating you should turn power to the CANbus ON (Figure 25)
9. Once the CANbus has been turned ON, bring the SmarTool within 12 inches of the CANbus. The baseline screen will appear indicating CANbus ID# (Vehic) and unit of measure PSI/BAR (Figure 26)

STEP 6

STEP 6.1



Figure 27



Figure 28

1. Each tire position with a loaded sensor will be shown with an NC next to it. (Figure 27)
2. To adjust the baseline air pressure for 1-A (default is 100 PSI), press ENTER on SmarTool, the NC will change to [100] indicating current PSI setting. (Figure 28)
3. To adjust the PSI number, use the up/down arrow keys on the SmarTool.
4. Press ENTER
5. Repeat for all tire positions
6. Once the baselines for all tires have been set, press ESC to return to the Baseline menu.
7. In the Baseline menu, select "Transmit".
8. Press ENTER
9. Select "Wireless"
10. Press ENTER
11. Hold SmarTool within 12 inches of CANbus. The upload will take approximately 3 seconds. Note: During this process the screen will not change, **DO NOT** press Enter again.
12. If the upload was successful, "Succeed" will appear on the screen and the CANbus will beep twice.
13. If the display shows "Failed," repeat the steps from the beginning.

FCC Statement

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help important announcement

ISED Statement

- English: This device complies with Industry Canada license?exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause interference, and (2) This device must accept any interference, including interference that may cause undesired operation of the device. The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).
- French: Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Hereby, [Baolong Huf Shanghai Electronics Co., Ltd.], declares that this [TPMS TOOL-GJ002] is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The full test of the EU declaration of conformity is available at the following internet address: www.bh-sens.com