Preparation

Part Number: PT960-60200-05 (Flat Bronze)

Kit Contents

Item #	Quantity Reqd.	Description
1	4	18” x 8.0” Painted Alloy Wheel
2	1 per wheel	Center Cap **PT280-60200-05**

Additional Items Required For Installation

Item #	Quantity Reqd.	Description
1	As Required	Low-Profile, Lead-Free Balance Weights **3M TN-4023** (or equivalent) Stick-on Type and/or (inboard) Clip-on Type
2	4	OE Tire P285/60R18 116V
3	4	Re-use TPMS valve **42607-48010**
4	4	TPMS Fit kit P/N **04423-33060**
5	20	Black Flat-Seat Lug Nuts P/N

Legend

STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.

OPERATOR SAFETY: Use caution to avoid risk of injury.

CAUTION: A process that must be carefully observed in order to reduce the risk of damage to the accessory/vehicle and to ensure a quality installation.

TOOLS & EQUIPMENT: Used in Figures calls out the specific tools and equipment recommended for this process.

REVISION MARK: This mark highlights a change in installation with respect to previous issue.

SAFETY TORQUE: This mark indicates that torque is related to safety.

REGULATORY MARK: This mark indicates the component is related to regulatory compliance

Conflicts

None

Recommended Tools

Personal & Vehicle Protection	Notes
Safety Glasses	
Seat Protection	Blanket
Special Tools	**Notes**
Tire Mounting Machine	Hunter TC3250 or equiv.
Wheel Balancing Machine	Hunter DSP9700 or equiv.
Centering Cone	**BACK-SIDE** collet Hunter **192-169-2** or equiv.
Wing Nut	Hunter **76-433-1** or equiv.
6.0-inch Cup w/ Sleeve	Hunter **175-392-1** or equiv.
6.0-inch protector Sleeve	Hunter **106-157-2** or equiv.
Foot Brake Application Tool	Snap-on B240A Pedal Jack or equivalent
Installation Tools	**Notes**
Lug Nut Wrench	22 mm wrench flat
Rubber Mallet	
Screwdriver	Philips head
Torque Wrench	20-150 ft-lbf (27-204 N-m)
Torque Wrench	30-150 in-lbf (3.3-17 N-m)
Sockets	22 mm Deep Well, ThinWall
Clean Lint-free Cloth	
Nylon Panel Removal Tool	e.g. Toyota Pry Tool #1 Toyota SST #00002-06001-01 or equiv.
Valve Stem Removal Tool	Schraeder Valve Type
Wire Brush	Hand held size
Special Chemicals	**Notes**
Tire Lube	Myers or locally approved
Cleaner (for rework of stick on weights if needed)	Locally approved cleaner

General Applicability

MY20 and newer Land Cruiser models

Recommended Sequence of Application

Item #	Accessory
1	Alloy Wheels
2	Wheel Center Caps

Vehicle Service Parts (May be required for reassembly)

Item #	Quantity Reqd.	Description
1	0 – 5 as needed	Valve Stem Fit Kit (if required) P/N **04423-48010**
2	0 – 4 as needed	TPMS (if required) Single P/N **42607-48010**

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Procedure

Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:-

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Toyota dealer for a copy of this document.

1. Prepare the Vehicle.

(a) Verify that all components are present before beginning the accessory installation.

NOTE: See page 1 for kit contents, hardware, additional items required, and recommended tools, etc.

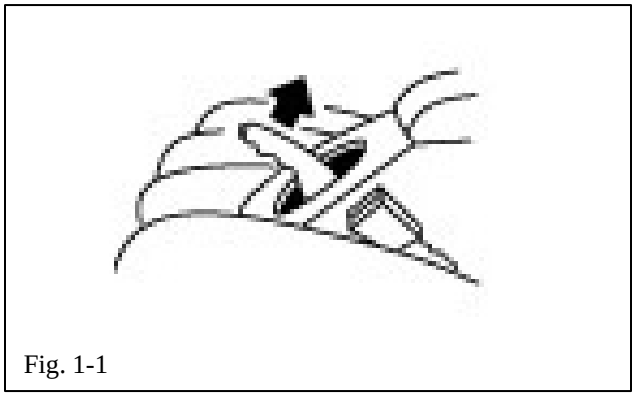

Fig. 1-1

(b) Firmly apply the parking brake (Fig. 1-1).

(c) Put automatic transmission in “P”.

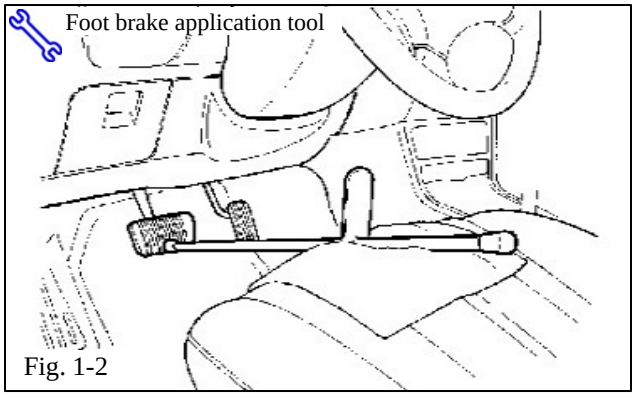

Fig. 1-2

(d) Add seat protection (blanket) and apply the foot brake using a foot brake application tool (Fig. 1-2).

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(e) Lift the vehicle.

CAUTION: Place a safety stand under the front of the vehicle or under the frame while the vehicle is off the ground for additional vehicle support.

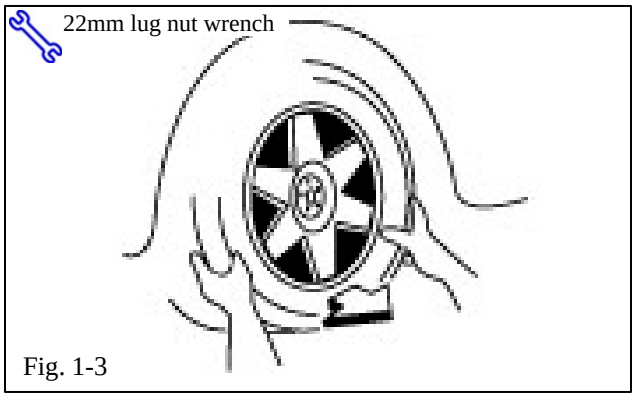

Fig. 1-3

(f) Remove the four OE wheel and tire assemblies from the vehicle (Fig. 1-3). Wear safety glasses while removing wheels.

(g) Keep ALL OE lug nuts with the OE take off wheels, for use/disposition later, per local regulations.

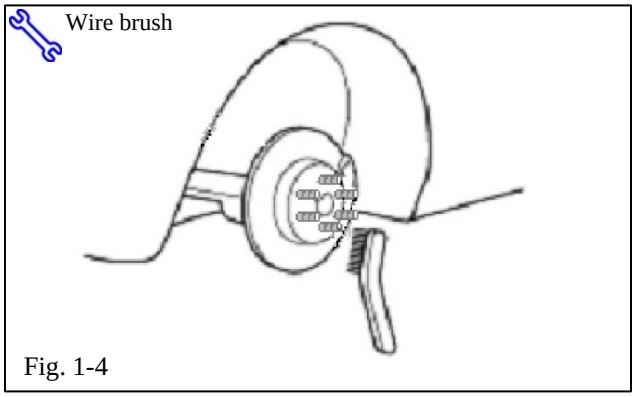

Fig. 1-4

(h) If required, remove any corrosion on the mounting surface of the vehicle with a wire brush (Fig. 1-4). Wear safety glasses to protect against any debris.

2. Remove the Tire Pressure Monitor Valve Sub-assembly.

(a) Remove and retain the valve cores and release the air from all of the tires.

(b) Remove and retain the nuts and washers and let the pressure sensors drop inside the tires.

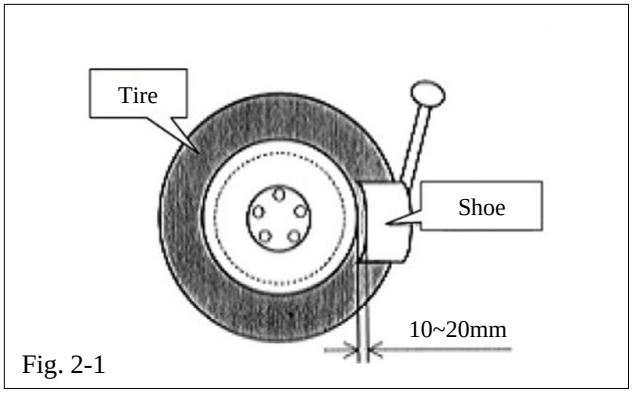

Fig. 2-1

(c) Carefully separate the outer tire bead from the wheel rim (Fig. 2-1).

NOTE: Be careful not to damage the tire pressure monitor due to interference between the sensor and the tire bead.

(d) Remove the sensor from the tire and remove the bead on the lower/inner side as in the usual tire removal operation.

(e) Dismount the OE tire from the OE wheel.

(f) Repeat for all of the tires.

3. Install the Tire Pressure Monitor Sensor (TPMS) Sub-assembly into the TRD Wheels.

(a) Reuse the TPMS sensors removed from the OE wheels. If new TPMS sensors are used, please note the following:

(1) Sensor ID codes **MUST** be recorded for all 4 wheels and these 4 new ID codes (Fig. 3-1) registered with the vehicle ECU (See Step 9).

(2) Each sensor has a unique sensor ID code. The sensor ID code is a 7-character hexadecimal string comprised of numbers 0 through 9 and letters A through F. See Fig 3-1 for example code and location.

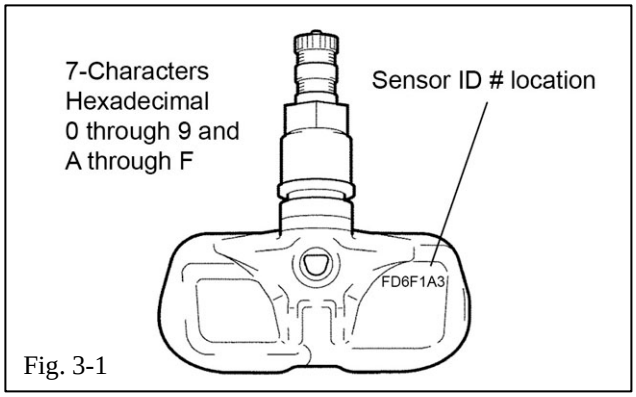

Fig. 3-1

(b) Check that the wheel valve hole is clean and free of sharp edges or burrs.

(c) Check that the wheel is clean.

(d) Visually check that no deformation or damage exists on the tire pressure monitor valve sub-assembly.

(e) Check that the grommet, washer and nut are all clean and in good condition.

NOTE: Replace the grommet ONLY IF the grommet is old or was damaged. A damaged grommet is NOT reusable.

(f) Insert the tire pressure monitor valve sub-assembly into the wheel valve hole from the inside of the rim and bring the valve stem to the outside (Fig. 3-2).

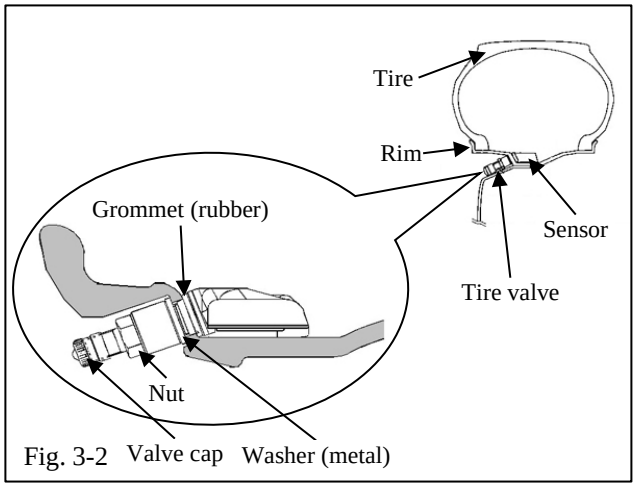

Fig. 3-2

(g) Insert the tire pressure monitor valve sub-assembly so that the "Manufacturer's" mark is visible.

NOTE: Incorrect orientation of the pressure monitor sub-assembly may cause damage and prevent signal transmission during high-speed driving.

(h) Install the washer on the outside of the wheel and secure it with the nut.

Torque: 35 in-lbf (4.0 N-m)

4. Mount the Tires

(a) Mount the **P285/60R18** tires on the 18" TRD accessory alloy wheels.

(b) Use tire lube on the tire beads and bead locations on the wheel prior to mounting the tire.

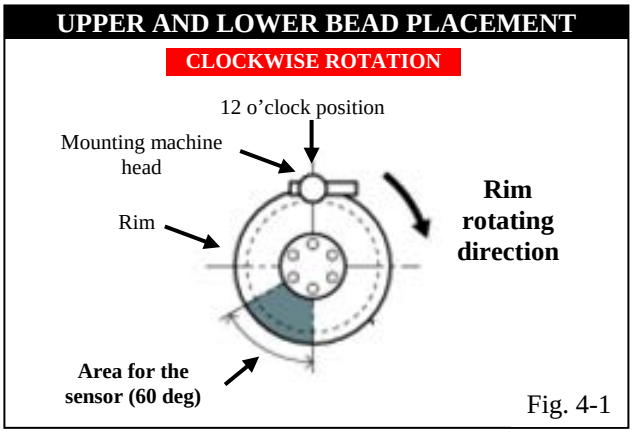

Fig. 4-1

(c) Position the wheel on the mounting machine with the sensor at ~ 7 o'clock position (shaded area in Fig. 4-1). The mount/dismount head is considered as 12 o'clock.

(d) Mount the lower tire bead.

NOTE: If the sensor is positioned outside this area, it generates interference with the tire bead, causing possible damage to the sensor.

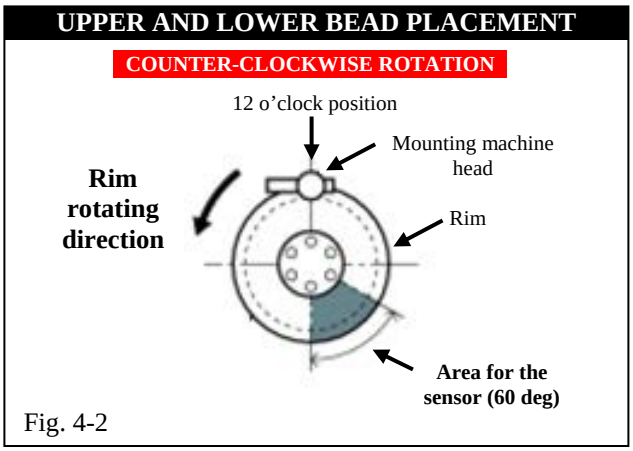

Fig. 4-2

(e) Reposition the wheel on the mounting machine with the sensor at ~ 5 o'clock position (shaded area in Fig. 4-2).

(f) Mount the upper tire bead.

NOTE: If the mounting machine rotates in the counterclockwise direction, refer to Fig. 4-2 for sensor placement.

NOTE: Make sure that the tire bead and tool does not interfere with the main body of the sensor and the bead does not clamp sensor.

(g) To seat the tire beads, inflate the tire beyond **35 PSI** (240 kPa) but not more the than the maximum tire bead seat pressure indicated on the tire sidewall. If it is not indicated, use 40 PSI (275 kPa) as a limit. If both tire beads are not seated when the pressure registers 40 PSI (275 kPa), deflate the tire and re-inflate it to seat the beads.

(h) Regulate the tire pressures to the OE tire pressure as found on the vehicle's OE tire pressure label.

(i) If new tires are used, ensure all labels/stickers are removed from the tire tread prior to balancing.

(j) Install and torque the valve stem cores with the valve stem torque tool.

(k) Be sure to **recheck the torque** on the TPMS nuts.

Torque: 35 in-lbf (4.0 N-m)

(l) Install the valve stem caps by hand.

5. Balance the Wheels.

NOTE: Application temperature for stick-on type weight is above 50°F (10°C). It is good practice to apply the stick-on type in sections comprised of no more than 5 or 6 individual weight segments.

(a) Prior to mounting stick-on weight, use VDC-approved cleaner as needed to clean the weight mounting location on the wheel, then wipe down with a clean, dry, lint-free cloth. Ensure that the location is clean and dry.

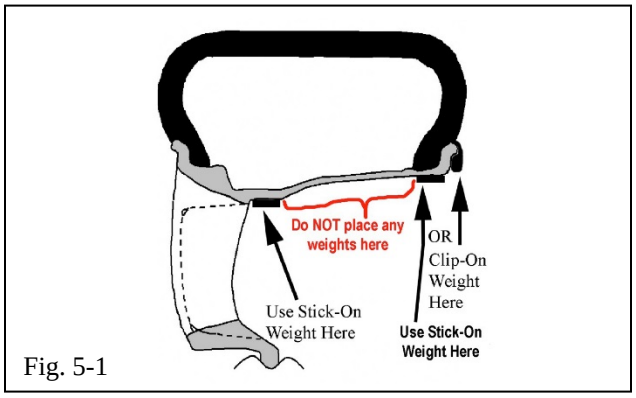

Fig. 5-1

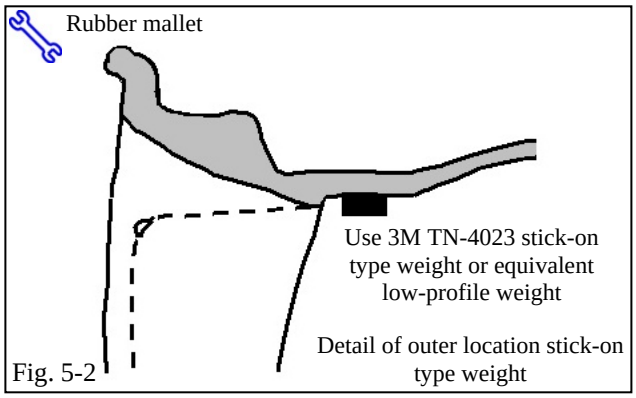

Fig. 5-2


Fig. 5-3

(b) Mount the wheel/tire on the wheel balance machine and balance in DYNAMIC MODE. Enable the LOAD ROLLER, if applicable, to ensure proper bead seating. Use 3M brand TN-4023 or equivalent low-profile stick-on type weights (Fig. 5-1, 5-2, & 5-3).

⚠ **NOTE:** Weights should be no taller than 4 ~ 5 mm in height.

(c) Apply stick-on type weights at the perimeter location identified by the dynamic balance machine. Use a rubber mallet, if required, to achieve complete adhesion of stick-on type weight(s).

⚠ **NOTE:** The maximum allowable amount of clip-on type weight on the inner and outer rim is **200 g** (7.0 oz.). If weight required exceeds this, place machine in STATIC mode and proceed. If weight required still exceeds limit, rotate tire 180 degrees relative to wheel and repeat Step 5(c). If removal and replacement of stick-on type weight is necessary, remove the weight using a nylon removal tool. Clean the surface with a clean cloth using a locally approved cleaning solution. Wipe the surface dry before reapplying new weight(s). DO NOT RE-USE STICK-ON WEIGHTS.

(d) Re-spin the wheel on the machine with the LOAD ROLLER DISABLED (if applicable) and note the indicated remaining unbalance. The maximum permitted unbalance is 6 g (0.21 oz.) at the inner location and 6 g (0.21 oz.) at the outer location. If the indicated unbalance is not within the permissible limit, add required additional balance weights, within specification, and re-spin the tire/wheel assembly.

6. Record the Tire Identification Numbers (TIN).

(a) **PPO Only:** Record **ALL** new Tire Identification Numbers (TINs) from the **four** new tires installed onto the vehicle.

(1) Record these TINs with the Vehicle Identification Number (VIN) per VDC process.

(2) The TIN for the tire is an 11 or 12-character string located after the “DOT” symbol on the sidewall of the tire.

(3) Refer to **SPAD PPO Bulletin** database as needed. When reusing the same OE tires that came on the same vehicle, the TINs need not be recorded.

(b) **DIO Only:** Record **ALL** new Tire Identification Numbers (TINs) from the **four** new tires installed onto the vehicle.

(1) Record these TINs with the Vehicle Identification Number (VIN).

(2) Provide the tire information to your tire vendor as required by law.

(3) When reusing the same OE tires that came on the same vehicle, the TINs need not be recorded.

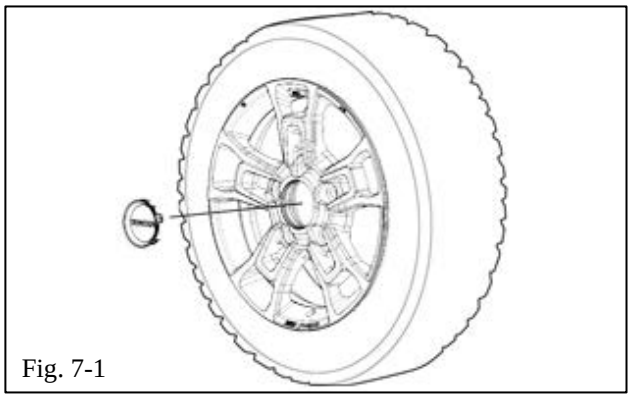

Fig. 7-1

Fig. 7-2

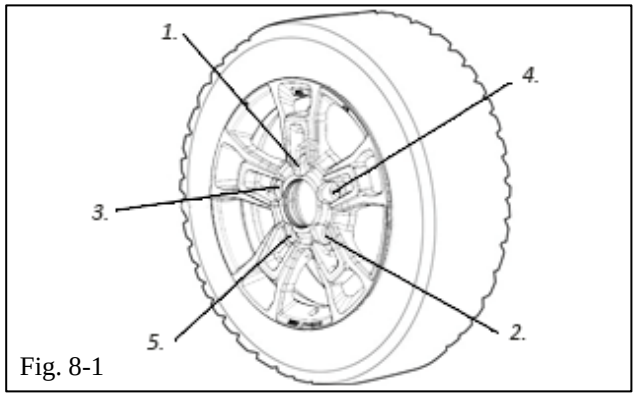

Fig. 8-1

7. Install the Center Caps.

(a) Install center caps onto all **four** wheels. Align the center cap as shown in Fig. 7-2 and then gently push the cap into the wheel until cap snaps into place (Fig. 7-1).

8. Install the Wheels / Tires on the Vehicle.

(a) Install the 4 TRD wheel and tire assemblies on the vehicle.

(b) Hand-start the flat-seat lug nuts during installation.

NOTE: Do NOT use conical-seat acorn lug nuts. These Wheels require flat-seat lug nuts.

(c) Tighten the lug nuts in sequence 1 through 5 (Fig. 8-1). Ensure that the socket does not scuff the wheels.

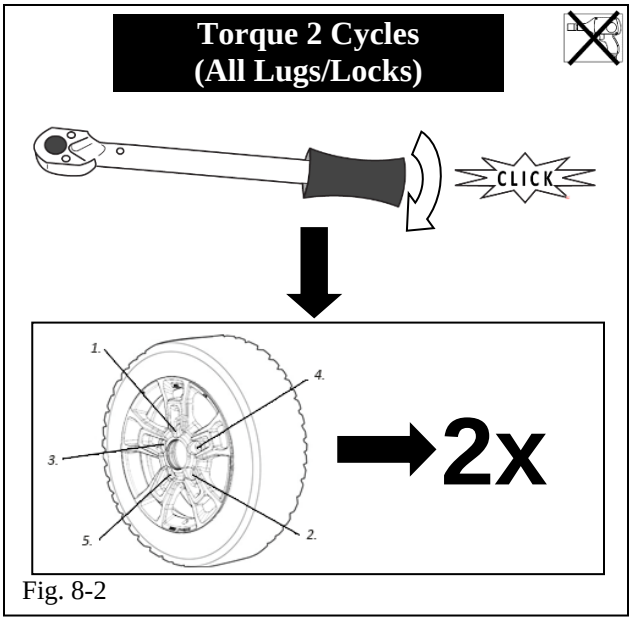

Fig. 8-2

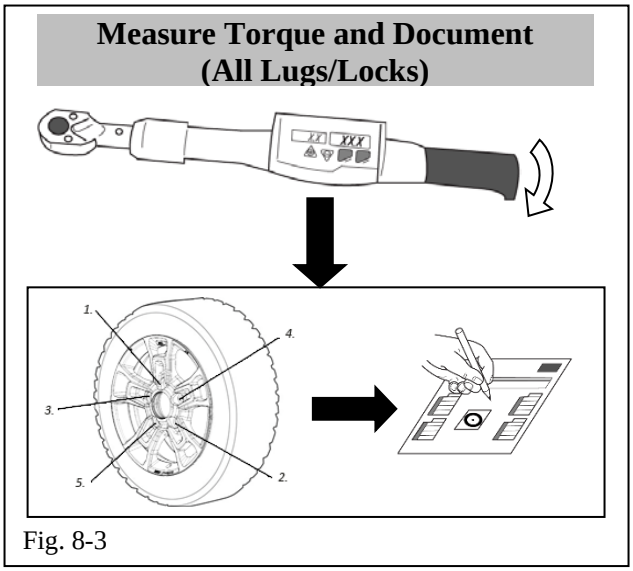

Fig. 8-3

(d) Tighten the lug nuts in sequence 1 through 5 (Fig. 8-2). Ensure that the socket does not scuff the wheels. Torque to 97 ft-lbf (131 N-m) using a torque wrench.

Torque: 97 ft-lbf (131 N-m)

CAUTION: DO NOT USE AN IMPACT WRENCH TO INSTALL OR REMOVE WHEEL LOCKS.

(e) Re-torque all lug nuts in the same 1-5 sequence (Fig. 8-2).

Torque: 97 ft-lbf (131 N-m)

(f) With the vehicle still on the lift, use a digital torque wrench to measure the torque of each lug nut/lock, and TPMS nut. Record the values on the torque audit sheet (Fig. 8-3).

NOTE: PPO installation only, does not apply to DIO installation.

(g) Lower the vehicle.

(h) Discard the OE take-off wheels per local regulations.

9. TPMS Transmitter ID Registration Using Techstream.

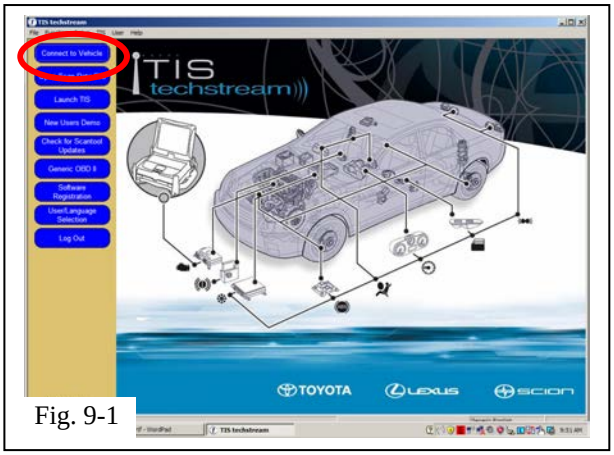

Fig. 9-1

(a) Connect the Techstream to DLC3 (Fig. 9-1).

(b) Turn the ignition switch to the ON position (do not start the vehicle), then turn the Techstream ON.

(c) Start the Techstream application by clicking on the shortcut located on the Desktop.

(d) Click "**Connect to Vehicle**" button (Fig. 9-1).

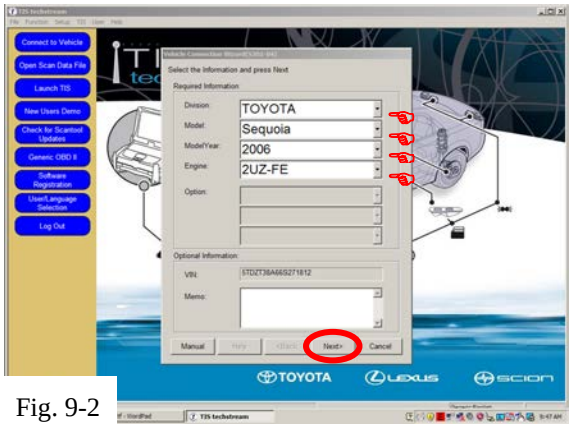

Fig. 9-2

(e) Confirm that the information displayed on the Vehicle Connection Wizard is correct. If not, make the appropriate selections from the Drop-Down Menus, then click "**Next"** (Fig. 9-2).

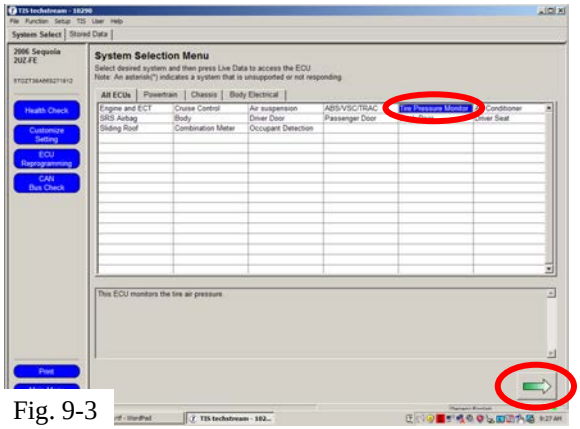

Fig. 9-3

(f) Select "**Tire Pressure Monitor**" then click the green arrow located on the bottom right (Fig. 9-3).

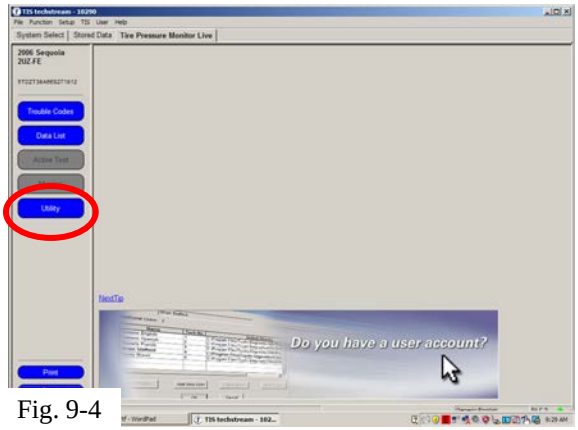

Fig. 9-4

(g) Select "**UTILITY**" to begin the input of new TPMS ID codes (Fig. 9-4).

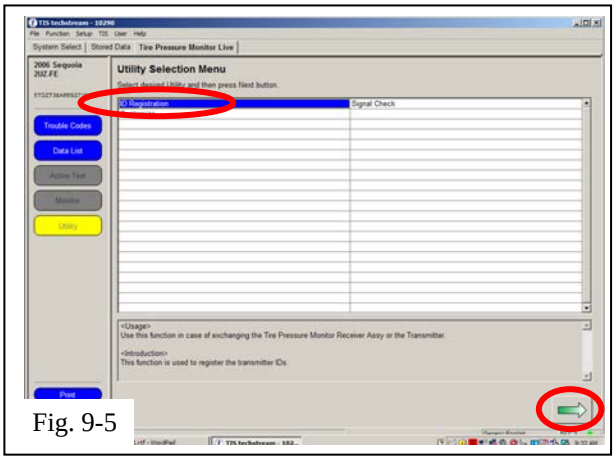

Fig. 9-5

(h) Select "**ID Registration**" then click the green arrow located at the bottom right corner (Fig. 10-5).

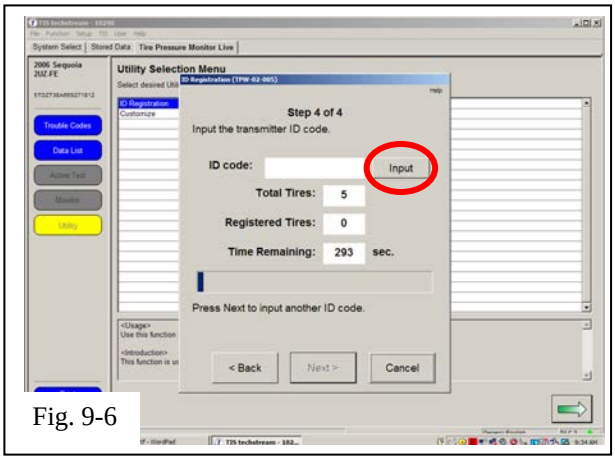

Fig. 9-6

(i) Select "**Next**" for Steps 1 through 3. Select "**Input**" in Step 4 to begin TPMS ID registration (Fig. 9-6).

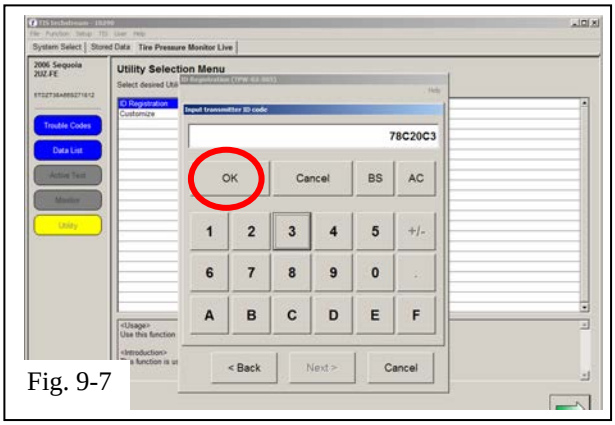

Fig. 9-7

(j) Input the TPMS ID code, then click "**OK.**" Repeat the same procedure for all other TPMS ID codes (Fig. 9-7).

⚠ **NOTE:** If this process is not completed within 5 minutes, the transmitter will return to normal operation mode and process will need to be started over at **Step 10(g)**.

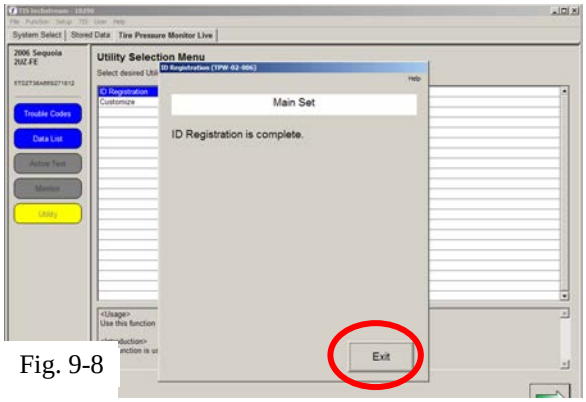

Fig. 9-8

(k) After all TPMS ID numbers have been registered, "**ID Registration is complete**" text should be displayed. Click "**Exit**" to finish the registration process (Fig. 9-8).

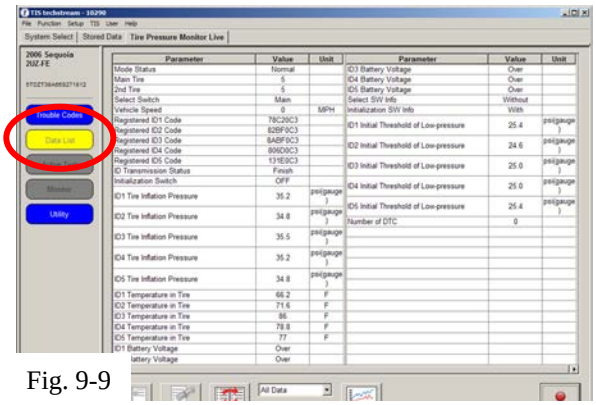

Fig. 9-9

(l) Select "**DATA LIST**" to view and confirm the TPMS ID numbers have been correctly registered (Fig 9-9).

10. Breakdown the OE Tire & Wheel Assembly.

(a) Sort product properly per local regulations.

(b) **PPO Only:** Take-Off Wheels get salvaged according to local regulations.

11. Place the Lug Nut Tool.

(a) If optional wheel locks were installed, attach wheel lock key tool to vehicle lug wrench using optional cable tie.

(b) Trim the cable tie and replace the lug wrench into lug wrench tool bag.

(c) Place the associated wheel lock paperwork into the plastic bag and place the bag into the vehicle glove compartment.

Checklist - these points **MUST** be checked to ensure a quality installation.

Check:	Look For:
Accessory Function Checks	
☐ Inspect lug nuts	5 lug nuts installed on each wheel
☐ Lug nut tightness	(S) Wheels tightened to **97 ft-lbf (131 N-m)**
☐ Correct Tire Pressure	Verify tire pressure is set to the value specified on the OE Tire Pressure Label
(R) ☐ Tire Identification Numbers	**PPO**: For new tires only: Tire Identification Numbers are recorded with the Vehicle Identification Number per regulations. Refer to **CAD PPO Bulletin** as needed. **DIO**: For new tires only: Provide the tire information to your tire vendor as required by law
☐ Center Caps	Verify center caps are securely in place on all wheels.
☐ Optional Wheel Locks	Verify optional wheel lock key tool is attached to vehicle lug wrench in vehicle and paperwork is placed into vehicle glove compartment
☐ Wheel Balance Weights	Verify all wheel balance weights are free and clear of all brake components when wheels are spun through at least one full revolution
Vehicle Appearance Check	
☐ After accessory installation and removal of protective cover(s), perform a visual inspection.	Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMNA Accessory Quality Shipping Standard.)

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