

**Part Number: PT904-35070 Silver**  
**PT904-35071 Grey**  
**PTR20-35080 MatteBlack**

**Kit Contents (5 wheels required per vehicle)**

Item #	Quantity Req'd.	Description
1	1	16" x 7.5" x 15mm 6-Spoke Painted Alloy Wheel
2	1 per wheel	TRD Center Cap Silver P/N <b>PT904-35070-CC</b> Grey P/N <b>PT904-35071-CC</b> Black P/N <b>PTR20-35081</b>

**Hardware Box Contents**

Item #	Quantity Req'd.	Description
1	6 per wheel	Chrome Flat-Seat Lug Nuts

**Additional Items Required For Installation**

Item #	Quantity Req'd.	Description
1	As Required	Low-Profile, Lead-Free Balance Weights <b>3M TN-2023</b> (or equivalent) Stick-on Type and/or Clip-on Type
2	5	16" BF Goodrich All-Terrain T/A Tires LT265/75R16 PPO P/N <b>DT001-35070-BF</b>
3	1	Tire Pressure Label MDC# <b>00602-35016</b>
4	1	Owner's Manual Label MDC# <b>00602-35061</b>
5	0-5 as needed	20 degree TPMS P/N <b>42607-33011</b>
6	0-5 as needed	TPMS Fit kit P/N <b>04423-0E010</b>
7	1 optional PPO optional DIO	Vinyl Pouch <b>PT276-06999</b> Vinyl Pouch MDC# <b>00602-06999</b>
8	1 2008~2011 only	Denso TPMS ECU for LT tires <b>PTR24-35110</b>

**Conflicts**

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**Recommended Tools**

<b>Personal &amp; Vehicle Protection</b>	<b>Notes</b>
Safety Glasses	
Seat Protection	Blanket
<b>Special Tools</b>	<b>Notes</b>
Tire Changing Machine	Hunter TC3200, or Corghi Artiglio Master 26 or equivalent.
Wheel Balancing Machine	Hunter GSP9700, or equivalent.
Centering Cone	<b>BACK-SIDE</b> collet Hunter PN <b>192-169-2</b>
Wing Nut	Hunter <b>76-433-1</b> or equiv.
4.5 inch Cup w/ Sleeve	Hunter <b>175-316-1</b> or equiv.

4.5 inch protector Sleeve	Hunter <b>106-82-2</b> or equiv.
Foot Brake Application Tool	Snap-on B240A Pedal Jack or equivalent.
Toyota Diagnostic Tester or Techstream Device	Software Version 13.2a or newer required.
<b>Installation Tools</b>	<b>Notes</b>
Lug Nut Wrench	21 mm wrench flat
Rubber Mallet	Philips head screwdriver
Torque Wrench	20-150 ft-lbf (27-204 N-m)
Torque Wrench	30-150 in-lbf (3.3-17 N-m)
Sockets	10mm, 11mm, 12mm, and 21 mm Deep Well, ThinWall

Clean Lint-free Cloth	
Nylon Panel Removal Tool	e.g. Panel Pry Tool #1 Toyota SST # 00002-06001-01
Valve Stem Removal Tool	Schraeder Valve Type
Wire Brush	Hand held size
<b>Special Chemicals</b>	<b>Notes</b>
Tire Lube	Myers or locally approved
Cleaner (for rework of stick on weights if needed)	<b>PPO/DIO</b> : locally approved cleaner.

**General Applicability**

Applicable to 2007+ FJ Cruiser with TPMS. Use only with tire size <b>LT265/75R16</b>
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**Recommended Sequence of Application**

Item #	Accessory
1	TRD 16" Alloy Wheel & Tire
2	Optional Wheel Locks <b>PPO</b> P/N <b>PT276-3506B</b>
2	Optional Wheel Locks <b>DIO</b> P/N <b>00276-42960</b>
3	Port Brochure for Wheel Locks <b>00276-00890</b>

**Vehicle Service Parts** (May be required for reassembly)

Item #	Quantity Req'd.	Description
1	0 - 5 as needed	Valve Stem Fit Kit (if required) P/N <b>04423-0E010</b>
2	0 - 5 as needed	TPMS 20 degree (if required) Single P/N <b>42607-33011</b>

**Legend**

 <b>STOP:</b> Damage to the vehicle may occur. Do not proceed until process has been complied with.
 <b>OPERATOR SAFETY:</b> Use caution to avoid risk of injury.
 <b>CAUTION:</b> 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.
 <b>TOOLS &amp; EQUIPMENT:</b> Used in Figures calls out the specific tools and equipment recommended for this process.
 <b>REVISION MARK:</b> This mark highlights a change in installation with respect to previous issue.
 <b>SAFETY TORQUE:</b> This mark indicates that torque is related to safety.

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 local dealer for a copy of this document.

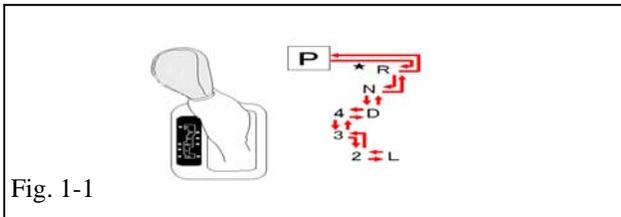
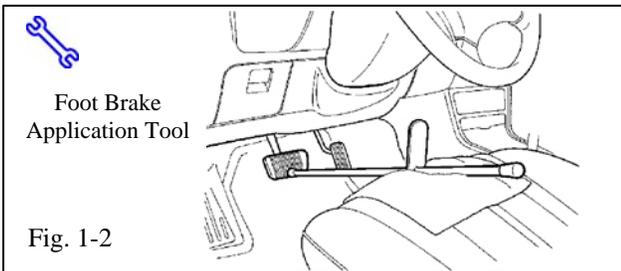


Fig. 1-1



Foot Brake Application Tool

Fig. 1-2

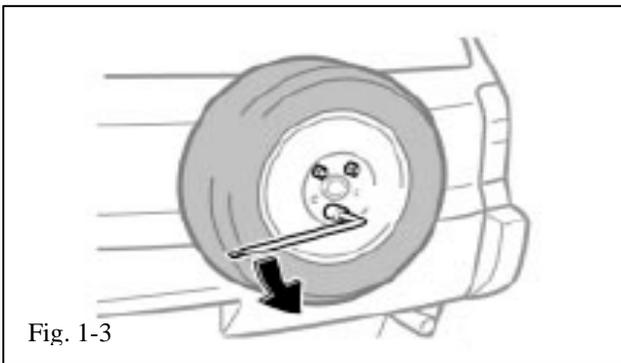


Fig. 1-3

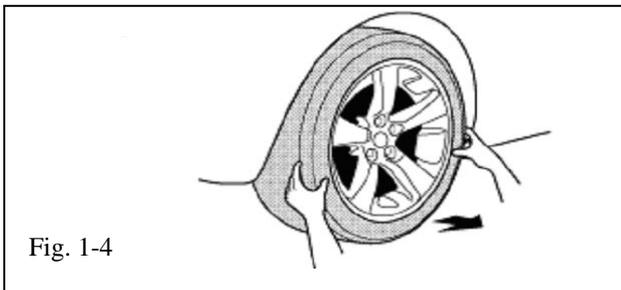
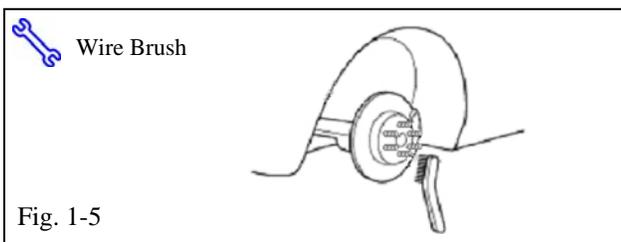


Fig. 1-4



Wire Brush

Fig. 1-5

**1. Vehicle Preparation.**

- (a) Verify that all components are present before beginning accessory installation. See page 1 Kit Contents, Hardware, Additional Items Required, and Recommended Tools, etc.
- STOP** (b) Firmly apply parking brake.
- (c) Put automatic transmission in "P". (Fig. 1-1).
- STOP** (d) Put manual transmission in "R".
- (e) Add seat protection (blanket) and apply foot brake using foot brake application tool. (Fig. 1-2).
- (f) Remove OE spare wheel and tire assembly. (Fig. 1-3) Wear safety glasses while removing wheels.
- (g) Carefully raise vehicle on lift.
- +** (h) Remove remaining 4 OE wheel and tire assembly from vehicle (Fig. 1-4). Wear safety glasses while removing wheels.
- (i) Keep ALL OE lug nuts with the OE take off wheels, for disposition later, per local regulations.
- +** If required, remove any corrosion on the mounting surface of the vehicle with a wire brush. Wear safety glasses to protect against any debris. (Fig. 1-5).

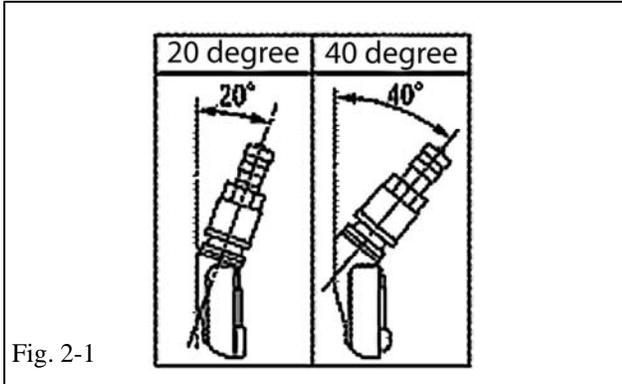


Fig. 2-1

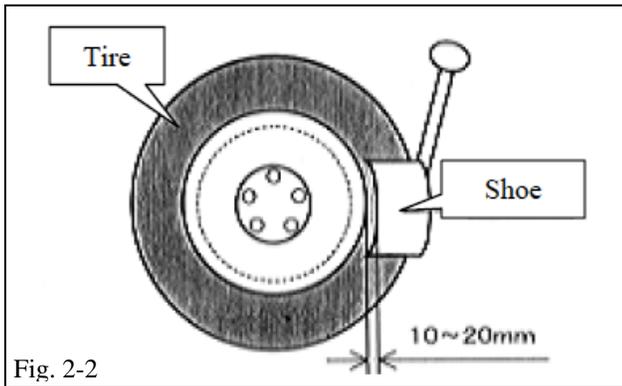


Fig. 2-2

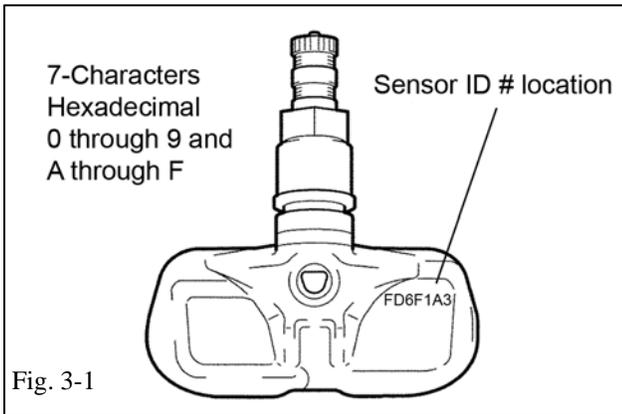


Fig. 3-1

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

**⚠ NOTE: 20 degree Tire Pressure Sensors MUST stay with same vehicle!**

**40 degree sensors are NOT used on ANY Accessory Alloy Wheels! (Fig. 2-1)**

- (a) Remove valve core and release pressure from tire.
- (b) Remove the nut and washer and let the pressure sensor drop inside the tire.
- (c) Carefully separate the upper tire bead from the wheel rim. (Fig. 2-2).

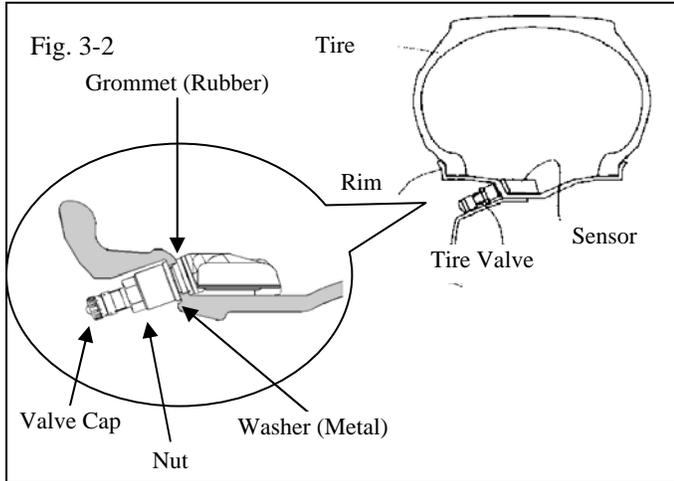
**STOP NOTE: Be careful not to damage the tire pressure monitor due to interference between the sensor and tire bead.**

- (d) Remove the sensor from the tire and remove the bead on the lower side as in the usual tire removal operation.
- (e) Dismount OE tire from the OE wheel.

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

- (a) If previously removed sensor is 20 degree sensor, proceed to step 3 (c). If previously removed sensor is 40 degree sensor, you must install new 20 degree sensors into accessory wheels. When installing new 20 degree sensors, you **MUST** record sensor ID codes for all 5 wheels and register these 5 new ID codes (Fig. 3-1) with the vehicle ECU. Each sensor has a unique sensor ID code. The sensor ID code is an 7-character hexadecimal string comprised of numbers 0 through 9 and letters A through F. See Fig 3-1 for example code and location.

**⚠ IMPORTANT!** Record all five new TPMS ID codes onto a sheet of paper or in a shop notebook. These **MUST** be programmed into the vehicle ECU later in step 10.



- (c) Check that the wheel valve hole is clean and free of sharp edges or burrs.
- (d) Visually check that there is no deformation or damage on the tire pressure monitor valve sub-assembly. Check that the grommet, washer, and nut are all clean and good.

**NOTE:** Change grommet to a new one IF the grommet is or was damaged. A damaged grommet is NOT re-usable.

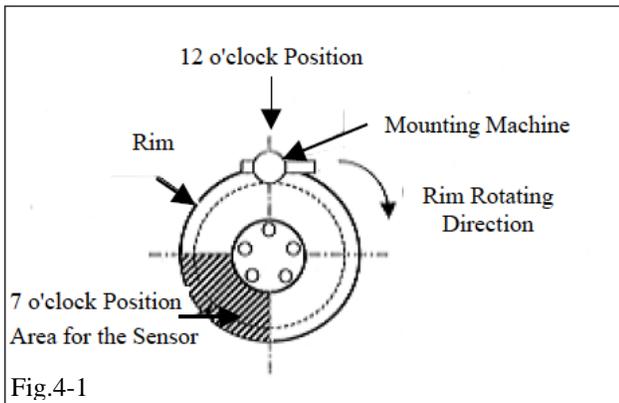


- (e) Insert the tire pressure monitor valve sub-assembly into the wheel valve hole from the inside of the rim and bring the valve stem to the outside. (Fig. 3-2).
- (f) Install the washer on the outside of the wheel and secure with the nut.



Torque the nut to **36 in-lbf** (4.0 N-m).

#### 4. Tire Mounting



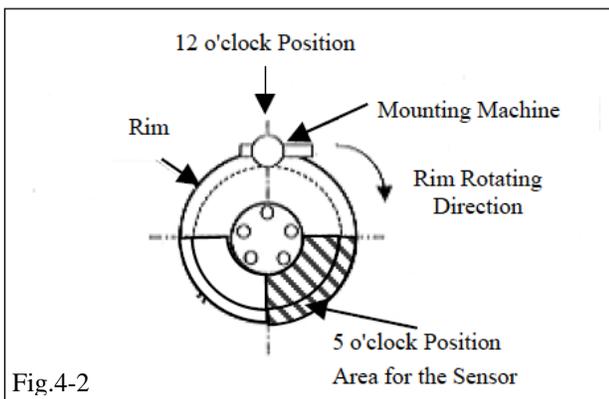
- (a) Mount LT 265/75R16 BF Goodrich All-Terrain tires on 16'' TRD accessory alloy wheels, with **white letters facing outward**.
- (b) Use tire lube on tire beads, and bead locations on wheel, prior to mounting tire.
- (c) Position the wheel on the mounting machine with the sensor at ~ 7 o'clock position (shaded area in Fig. 4-1)

Mount/dismount head is considered as the 12 o'clock Position.

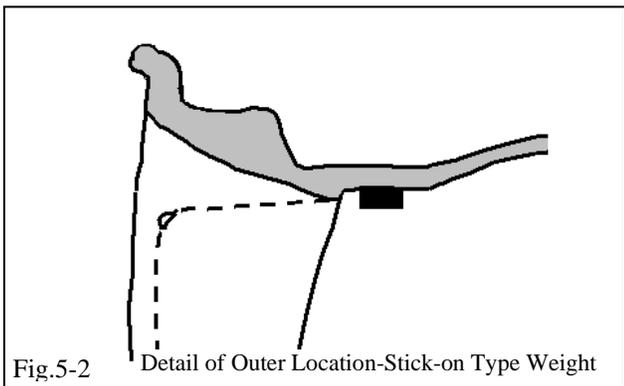
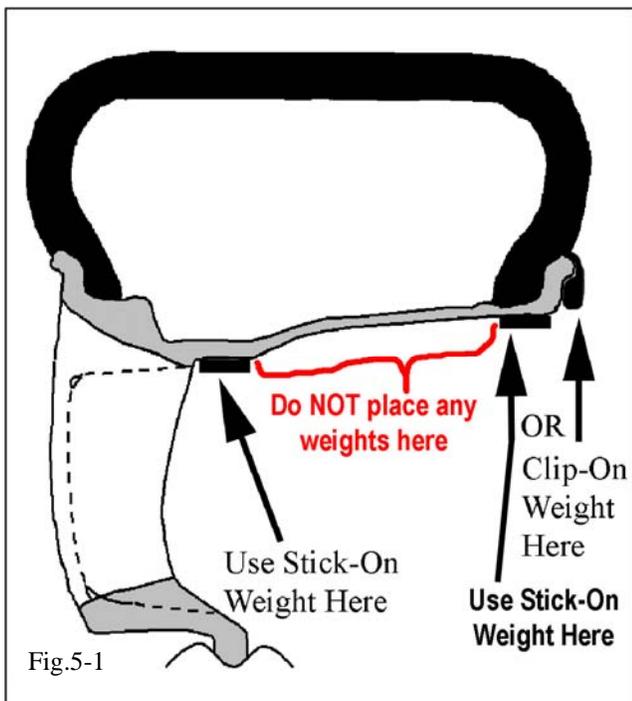
- (d) Mount the lower tire bead.



**NOTE:** If the sensor is positioned outside this area, it may generate interference with the tire bead, possibly causing damage to the sensor.



- (e) Re-position the wheel on the mounting machine with the sensor at ~ 5 o'clock position (shaded area in Fig. 4-2)
- (f) Mount upper tire bead.



**STOP** 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 the sensor.



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

Regulate tire pressure to:

FRONT & REAR: **46 PSI (320 kPa)**

- (g) Remove tire labels from tire tread prior to balancing. Be sure to Re-Check Torque on TPMS Nuts, and install valve stem caps.

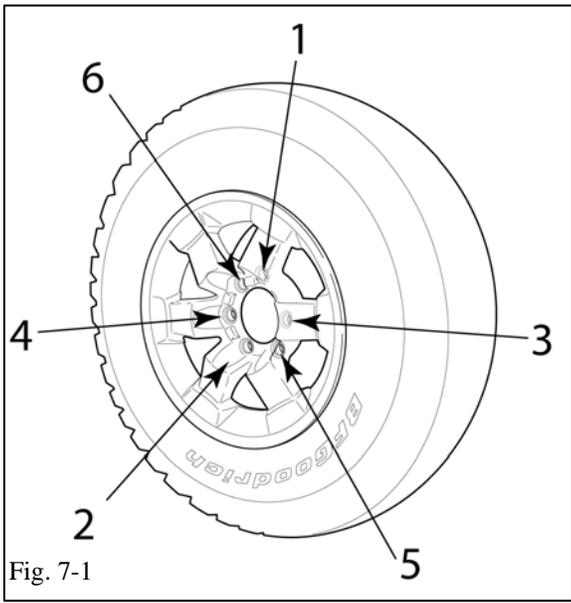
### 5. Wheel Balancing.



NOTE: Application temperature for stick-on type weight is above 50°F (10°C).

- (a) Mount wheel/tire on wheel balance machine & balance in DYNAMIC MODE. Enable the LOAD ROLLER, if applicable, to ensure proper bead seating. Use 3M brand TN-2023 or equivalent low-profile stick-on type weights. (Figs. 5-1, 5-2, & 5-3) Weights should be no taller than 4 ~ 5 mm in height. **DO NOT stack weights on top of each other, nor side by side. This is REQUIRED for proper brake caliper clearance.**
- (b) Prior to mounting stick-on weight, wipe down the weight mounting location on wheel with a clean lint-free dry cloth. Ensure that the location is clean and dry. Apply stick-on type weights at perimeter location identified by dynamic balance machine. Use a rubber mallet, if required, to achieve complete adhesion of stick-on type weight(s).

NOTE: Maximum stick-on type weight is **200 g (7.0 oz.)** inner and **200 g (7.0 oz.)** outer. If removal and replacement of stick-on type weight is necessary, then remove the weight using a nylon removal tool. Clean the surface with a clean cloth using locally approved cleaning solution. Wipe the surface dry



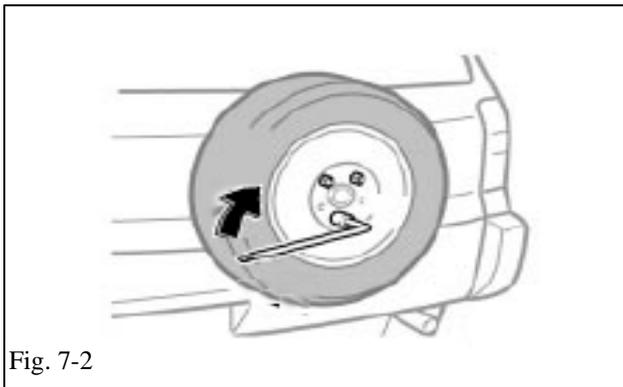
before re-applying new weight(s). (DO NOT RE-USE STICK-ON WEIGHTS.)

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

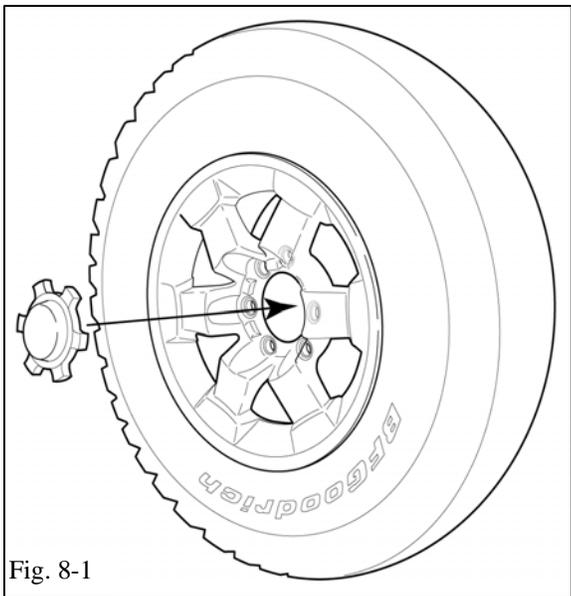
**6. Tire Identification Number (TIN) Recording**



**For PPO -** Record **ALL 5** Tire Identification Numbers (TINs) from the **5** new tires installed onto the vehicle. Record these TINs with the Vehicle Identification Number (VIN) on form **FJ Tire ID Numbers.xls**. The TIN for the tire is an 12-character string located after the "DOT" symbol on the sidewall of the tire. Refer to **CAD PPO Bulletin** database as needed.



**For DIO -** Record **ALL 5** Tire Identification Numbers (TINs) from the **5** new tires installed onto the vehicle. Record these TINs with the Vehicle Identification Number (VIN). Provide the tire information to your tire vendor as required by law.



**7. Vehicle Wheel / Tire Installation.**

- (a) Install 4 TRD wheel and tire assemblies on vehicle. Hand-start the TRD lug nuts during installation. Tighten lug nuts in sequence 1 through 6 (Fig. 7-1). Ensure that the socket does not scuff the wheels. Tighten to **82 ft-lbf** (112N-m) using a torque wrench.



- (b) Lower the vehicle.
- (c) Recheck lug nut torque.
- (d) Install spare tire on the vehicle using 3 TRD lug nuts provided with TRD wheel. (Fig 7-2) Tighten to **65 ft-lbf** (88 N-m) using a torque wrench. **NOTE:**



you will have 3 extra TRD lug nuts and all OE lug nuts remaining after TRD wheel installation. Discard the 3 extra TRD lug nuts and scrap all the OE lug nuts with the OE take-off wheels per local regulations.



Fig. 8-2

**8. Center Cap Installation.**

- (a) Install TRD center caps onto all 5 wheels. Align center cap and then gently push cap into wheel until cap snaps into place. (Fig. 8-1).
- (b) NOTE: Be sure that the TRD text on the center cap for the spare wheel is installed in it's upright position, as shown in Fig 8-2.
- (c) **STOP** NOTE: If the vehicle has a back-up camera located in the spare wheel hanger, place the 5<sup>th</sup> spare TRD wheel center cap into the vehicle glove compartment.

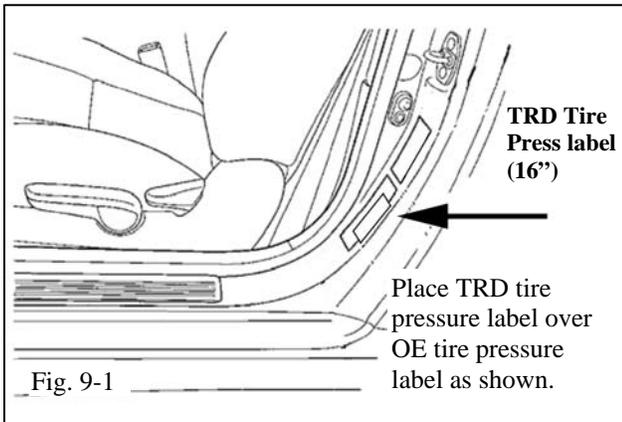


Fig. 9-1

**9. Tire Pressure Labels**

- (a) Clean the surface and a small area around the OE tire pressure label located on the driver's side door jamb.
- (b) Align the TRD 16'' wheel Tire Pressure Label (P/N **00602-35016**) over the OE tire specification portion of the OE label. Do NOT cover any of the OE label text. Cover ONLY the red boxes containing the OE tire size and pressure information.

NOTE: There may be some overhang of the TRD label off of the bottom edge of the OE label. This is OK and acceptable. (Fig. 9-1) This label is required per federal regulations.

- (c) Install Owner's Manual Label (MDC P/N **00602-35061**) onto upper right front cover of owner's manual. (Fig. 9-2) NOTE: Be sure NOT to cover any existing text or information.

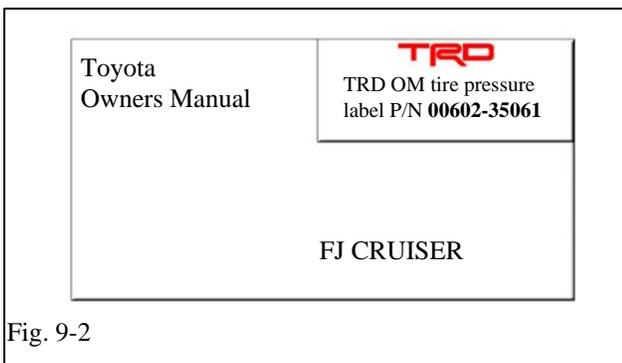
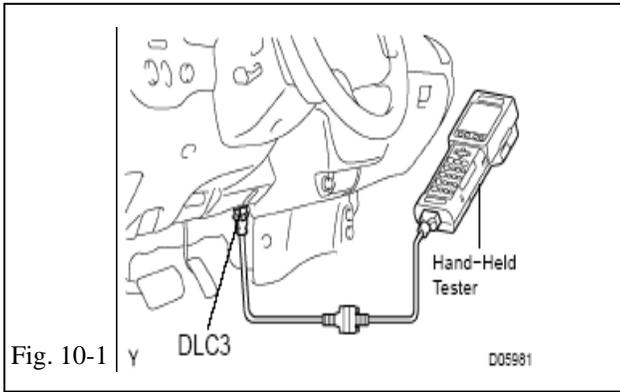


Fig. 9-2



**10. TPMS Transmitter ID Registration**

Perform **ONLY** when replacing sensors.  
Skip to step 12 if re-using same 20 degree sensors.

Skip to

Step 11 if using a Techstream Device.

(a) Complete this section after all four wheels have been installed.

(b) Connect the hand-held tester to DLC3.  
(Fig. 10-1)

⚠ (c) Turn the ignition switch to the ON position.

(d) Turn on Tester and Select UTILITY - REGIST TIRE following the hand-held tester screen prompts. (Fig. 10-2 & Fig. 10-3)

(e) Input the TPMS ID codes (ID1 to ID4) from Step 3(b) using the hand-held tester to transmit them to the tire pressure monitor ECU. **NOTE:** Spare does NOT have TPMS.

(f) Make sure that the ID transmission condition “SUCCEEDED” is achieved.

(g) Confirm all the tire pressures are set to values recommended on the tire pressure label (Section 9.) for this vehicle.

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

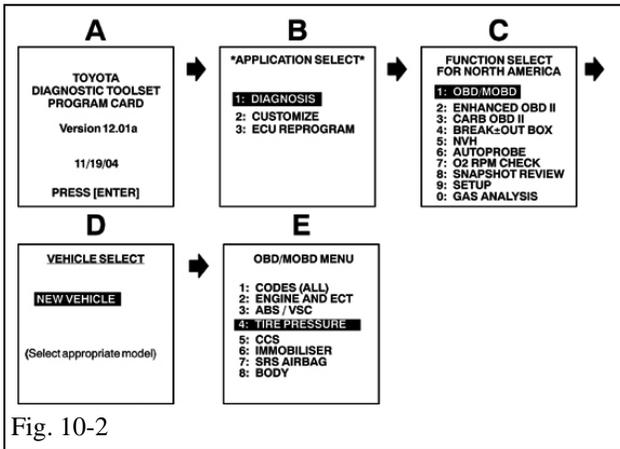


Fig. 10-2

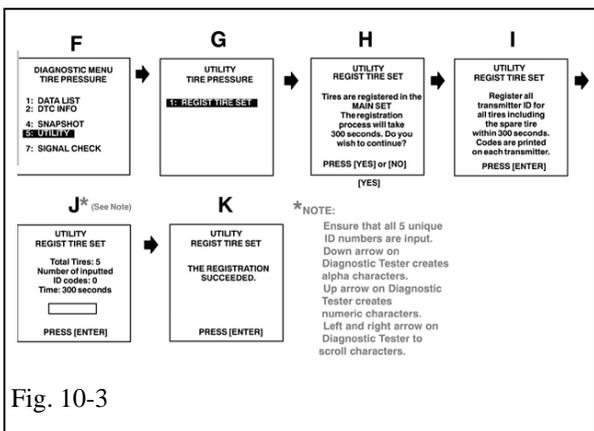


Fig. 10-3

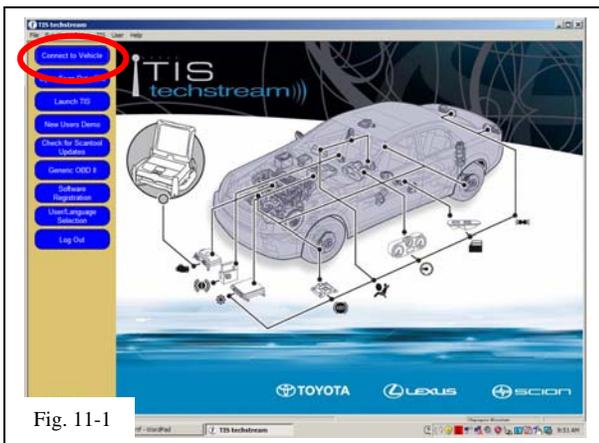


Fig. 11-1

**11. TPMS Transmitter ID Registration Using Techstream.**

(a) Connect the Techstream to DLC3, as in Fig. 10-1.

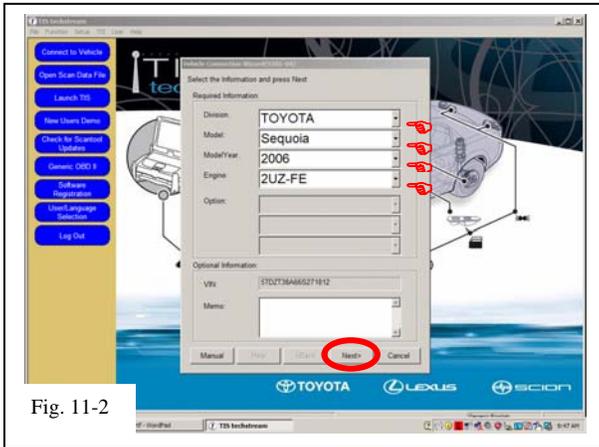


Fig. 11-2

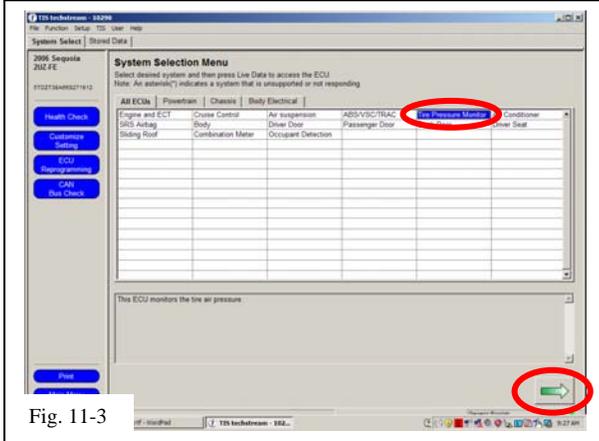


Fig. 11-3

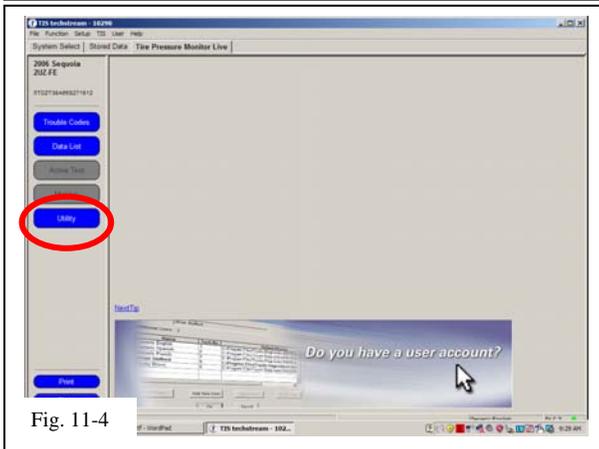


Fig. 11-4

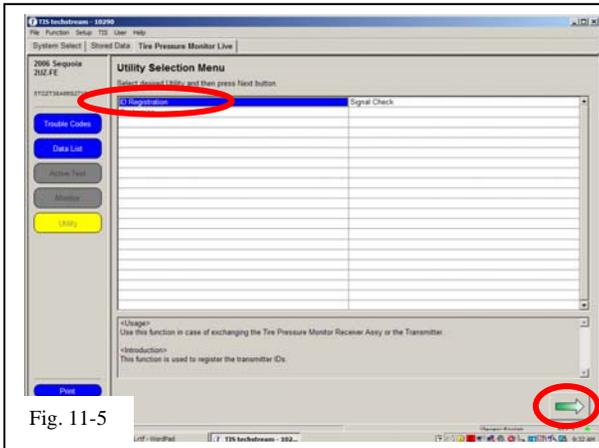


Fig. 11-5

- (b) Turn the ignition switch to 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. 11-1)
- (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. 11-2)
- (f) Select “**Tire Pressure Monitor**” then click the green arrow located on the bottom right. (Fig. 11-3)
- (g) Select “**UTILITY**” to begin input of new TPMS ID codes (Fig. 11-4).
- (h) Select “**ID Registration**” then click the green arrow located at the bottom right corner. (Fig. 11-5)

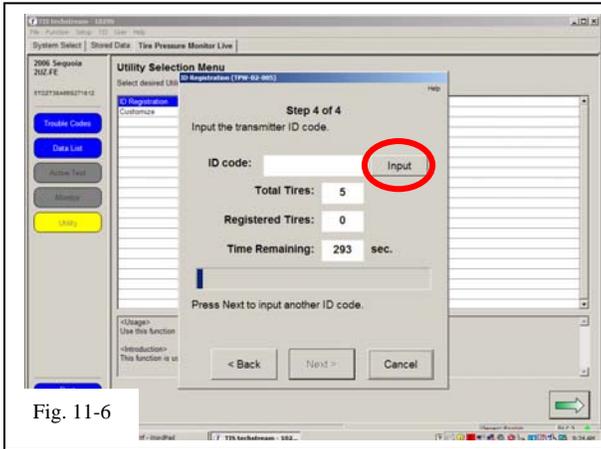


Fig. 11-6

- (i) Select “Next” for Steps 1 through 3. Select “Input” in Step 4 to begin TPMS ID registration. (Fig. 11-6)

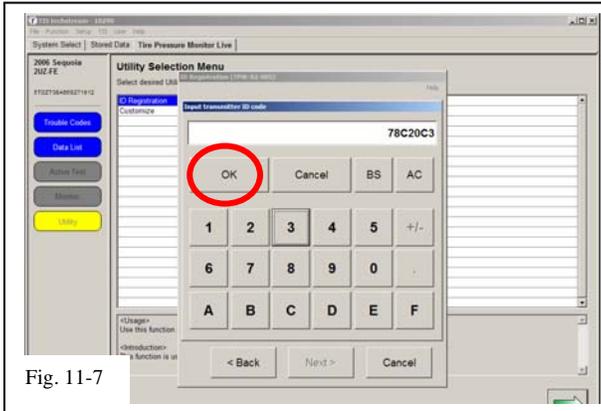


Fig. 11-7

- (j) Input the TPMS ID code then click “OK” Repeat the same procedure for all other TPMS ID codes. (Fig. 11-7) **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 11 (g).

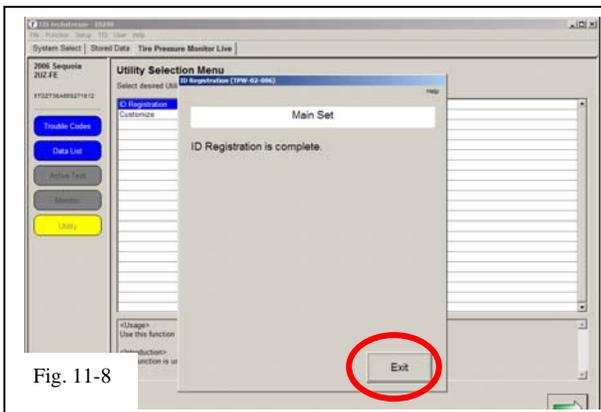


Fig. 11-8

- (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. 11-8)

- (l) Select “DATA LIST” to view and confirm the TPMS ID numbers have been correctly registered (Fig 11-9).

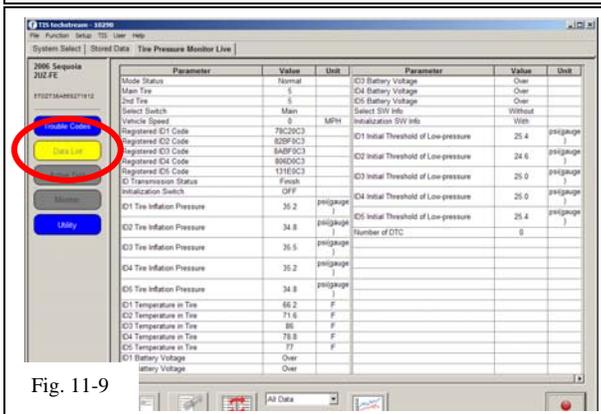


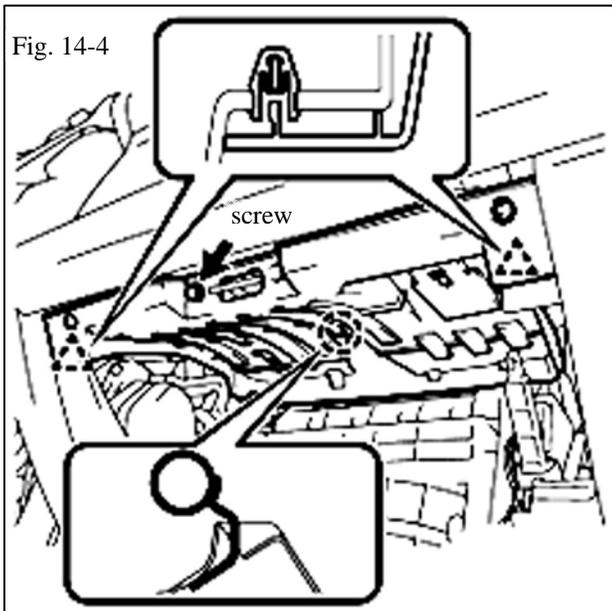
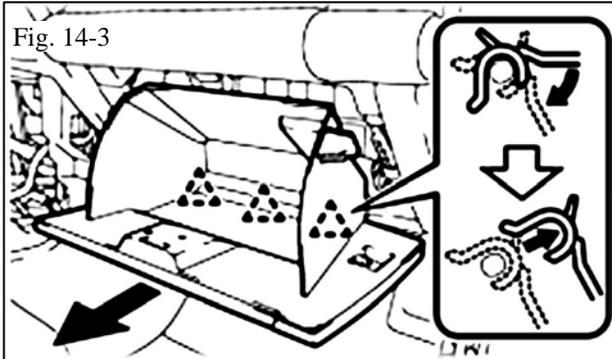
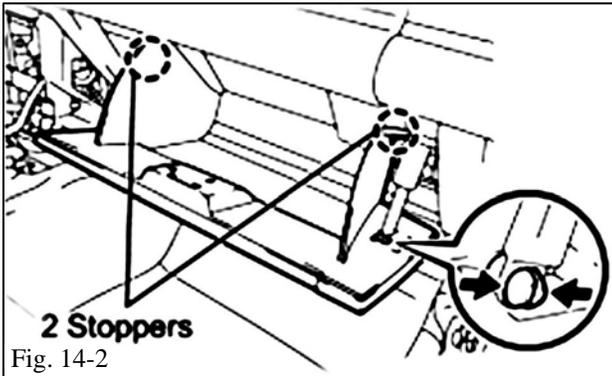
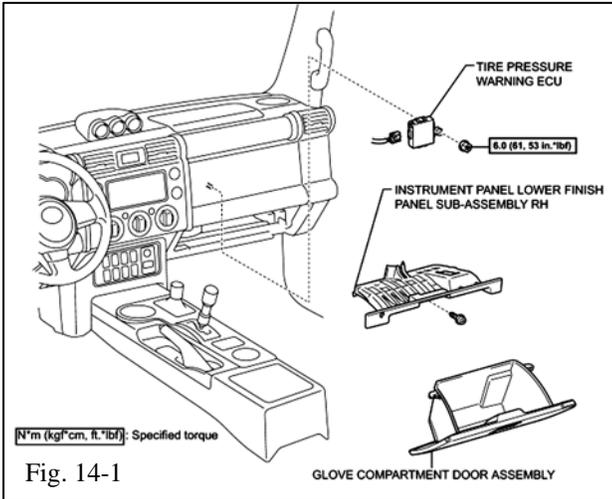
Fig. 11-9

**12. Breakdown of OE Tire & Wheel Assembly**

**For PPO**

- (a) Sort product properly according to local regulations.
- (b) Take-Off Tires get picked up by Dealer Tire.
- (c) Take-Off Wheels get salvaged according to local regulations.

**For DIO** Sort product properly per local regulations.



### 13. Lugnut Tool Placement.

IF wheel locks were installed, attach wheel lock key tool to vehicle lug wrench using cable tie. Trim cable tie, and replace lug wrench into lug wrench tool bag. Place associated wheel lock paperwork into plastic bag and into vehicle glove compartment.

### 14. Tire Pressure ECU R&R & Initialization. 2008 ~ 2011 FJ Cruiser Models only

#### PPO/DIO:

- (a) Record in a notebook all 5 OE TPMS ID codes with a Techstream device.
- ⚠ (b) Disconnect Battery Negative Terminal.
- (c) See Fig. 14-1 for TPMS ECU general location.
- (d) Remove Glove Compartment Door Assembly. Disengage the claw and separate the glove compartment door stoppers from the glove compartment door, Fig. 14-2.
- (e) Slightly flex the upper part of the glove compartment door assembly to release the 2 stoppers and open the glove compartment door until it becomes horizontal
- (f) Pull the glove compartment door assembly toward the rear of the vehicle to release the 3 hinges and remove the glove compartment door assembly, Fig. 14-3.
- (g) Loosen but do not completely remove Instrument Panel (IP) Lower Finish Panel, Fig. 14-4.
- (h) Remove single center screw.
- ⚠ (i) Disengage the 2 clips and claw, and carefully loosen the IP Lower Finish Panel, Fig. 14-4. NOTE: it is not necessary, nor recommended to disconnect the wires attached to lower finish panel.

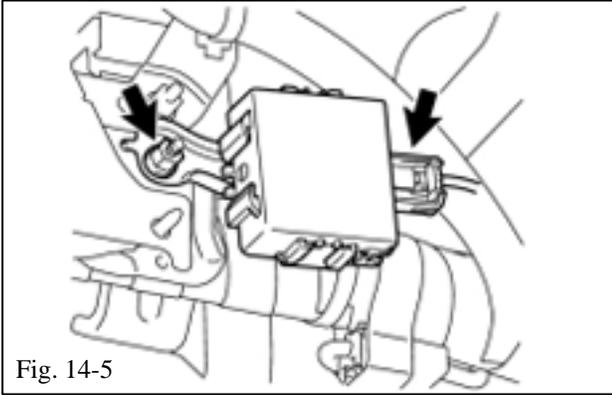
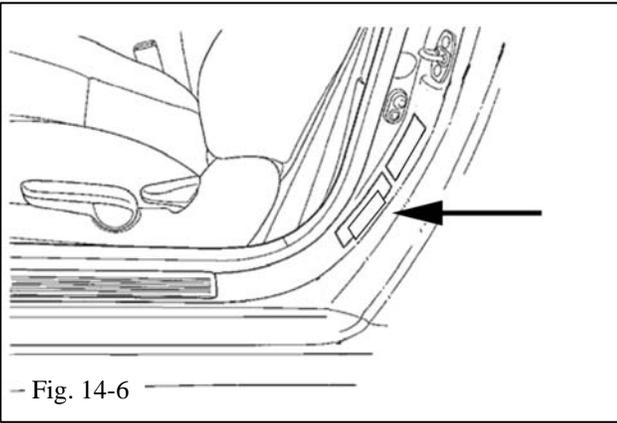


Fig. 14-5



- Fig. 14-6 -

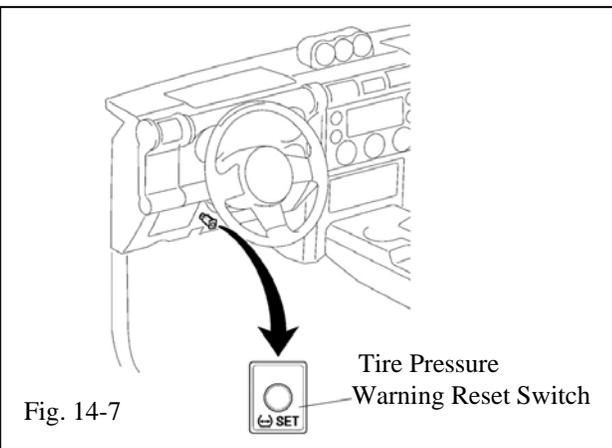


Fig. 14-7

- (j) ⚠ Use masking tape as needed to support and or suspend Panel temporarily out of the way as needed.
- (k) Disconnect electrical connector to the TPMS ECU first and then remove the nut, Fig. 14-5.
- (l) ⚠ Remove OE TPMS ECU.
- (m) Install the new TPMS ECU (PTR24-35110) in the reverse order. Torque Nut to **53 in-lbf** (6.0 N-m).
- (n) Reinstall finish Panel and Glove Compartment, also in the reverse order.
- (o) Reconnect Battery.
- (p) Verify all 5 tires are inflated to 46 PSI.
- (q) Verify/Install new TRD Tire Pressure Label MDC #00602-35016 over existing label, Fig 14-6. Be sure NOT to cover any existing passenger or cargo carrying capacity text.
- (r) Re-Register All 5 TPMS ID codes to vehicle with Techstream.

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

Check: \_\_\_\_\_

Look For: \_\_\_\_\_

Inspect lug nuts.

  Lug nut tightness.

Tire Pressure Labels

  Correct Tire Pressure

Tire Identification Numbers

Center Caps

Optional Wheel Locks

||  Wheel Balance Weights

Six (6) TRD lug nuts must be installed on each wheel, while only Three (3) TRD lug nuts hold on the spare wheel to its carrier. Chassis wheels should be tightened to **82 ft-lbf** (112 N-m) using a torque wrench. Spare wheel should be tightened to **65 ft-lbf** (88 N-m) using a torque wrench.

Verify Tire Pressure Label and Owner's Manual Labels are in place.

Verify tire pressure is set to the value specified on the TRD Tire Pressure Label.

**PPO:** Ensure all **5** accessory Tire Identification Numbers are recorded with the Vehicle Identification Number on the sheet

**FJ Tire ID Numbers.xls**

Refer to **CAD PPO Bulletin** as needed.

**DIO:** Provide the tire information to your tire vendor as required by law.

Verify center caps are securely in place on all 5 wheels. Ensure TRD spare wheel Center Cap is installed with the TRD logo in the upright position. For vehicles with back up camera, ensure 5<sup>th</sup> center cap is placed in the glove box.

Verify wheel lock key tool is attached to vehicle lug wrench in vehicle and paperwork is placed into vehicle glove compartment.

|| Verify all Wheel Balance Weights are free and clear of all brake components when wheels are spun through at least one full revolution.