

TOYOTA '07+Tacoma/'08+FJ Cruiser (16" "Beadlock") **TRD** ALLOY WHEEL Preparation

Part Number: PTR18-35090-BR Bronze

Kit Contents PTR18-35090 Black

Item #	Quantity Req'd.	Description
1	1	Cast Al Wheel 16"x7.5"x10mm

Hardware Bag Contents

Item #	Quantity Req'd.	Description
1	1 per wheel	TRD Center Cap P/N PTR18-35092
2	1 per wheel	Wheel Lock Ring P/N PTR18-35091
3	12 per wheel	Lock Ring Fasteners & Washers P/N PTR18-35093 (pkg. of 12)

Additional Items Required For Installation

Item #	Quantity Req'd.	Description
1	1 per wheel	Tire: BFG All-Terrain T/A Tacoma FJ Cruiser LT265/70R16 117S M+S LT 265/75R16 123/120S M+S
2	1 per vehicle	Lug nut Set w/ Spline Tool & Wheel Locks & Lock Key Tool Tacoma P/N PTR27-35100 FJ Cruiser P/N PTR27-35090
3	0 – 4 or 5 as needed	TPMS 20 degree angle (For Styled Steel wheel swap) Tacoma Bulk PPO P/N PTR42-3507B Tacoma Single DIO P/N 42607-06011 FJ Cruiser Single FJ P/N 42607-33011
4	As needed	Low-Profile, Lead-Free Balance Weights 3M TN-2023 (or equivalent) Stick-on Type and/or Clip-on Type
5	1 per vehicle	Tire Pressure Door Jamb Label 2007 + Tacoma MDC # 00602-35015 All FJ Cruiser MDC # 00602-35016
6	1	Owner's Manual Label MDC # 00602-35061
7	1	PPO Vinyl Pouch PT276-06999 DIO Vinyl Pouch MDC# 00602-06999
8	FJ Cruiser Only 1	Denso TPMS ECU for LT tires PTR24-35110

Conflicts

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Recommended Tools

Personal & Vehicle Protection	Notes
Safety Glasses	Seat Protection Blanket
Special Tools	Notes
Tire Changing Machine	Hunter or Corgi or equiv.
Tire Bead Clip/Depressor	Corgi 801262417 or equiv.
Wheel Balancing Machine	Hunter GSP9700 or equiv.
Required Centering Cone	Hunter BACK-SIDE collet 192-169-2
Wing Nut	Hunter 76-371-3 or equiv.
6" Cup w/ Sleeve	Hunter 175-392-1 or equiv.

Issue: H Mar/25/2011

6" Protector Sleeve	Hunter 106-157-2 or equiv.
Foot Brake Application Tool	Snap-on or equivalent.
Toyota Diagnostic Tester or Techstream Device	Software Version 13.2a or newer required.
Installation Tools	Notes
Lug Nut Wrench	21 mm wrench flat
Torque Wrench	20-150 ft-lbf (27-204 N-m)
Torque Wrench	30-150 in-lbf (3.3-17 N-m)
Sockets	11mm, 12mm, and 21 mm Deep Well, Thin Wall
TORX Male T30	TORX for lock ring
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
Special Chemicals	Notes
Tire Lube	Myers or equivalent
Cleaner (for rework of stick on weights if needed)	PPO/DIO : locally approved cleaner. No stronger than a 50-50 mix of Simple Green and Water.

General Applicability

Applicable to 1995+ Tacoma, and 2007+ FJ Cruiser.
Use w tire size **LT265/70R16** or **LT265/75R16** respectively







Recommended Sequence of Application

Item #	Accessory
1	TRD 16" Alloy Wheel & LT Tire

Vehicle Service Parts (May be required for reassembly)

Item #	Quantity Req'd.	Description
1	0 – 4 or 5 as needed	Grommet Fit Kit (if required) P/N 04423 -0E010
2	0 – 4 or 5 as needed	Tacoma 20° TPMS Bulk PPO P/N PTR42-3507B
2	0 – 5 as needed	FJ-CRUISER 20° TPMS Single P/N 42607-33011

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.

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

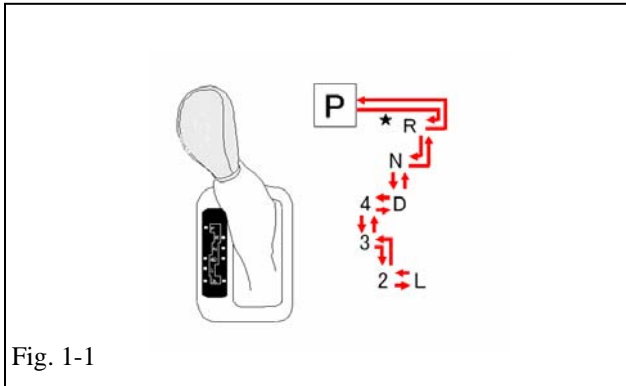


Fig. 1-1

1. Vehicle Preparation.



(a) Firmly apply parking brake.



(b) Put automatic transmission in "P".
(Fig. 1-1).

Put manual transmission in "R".

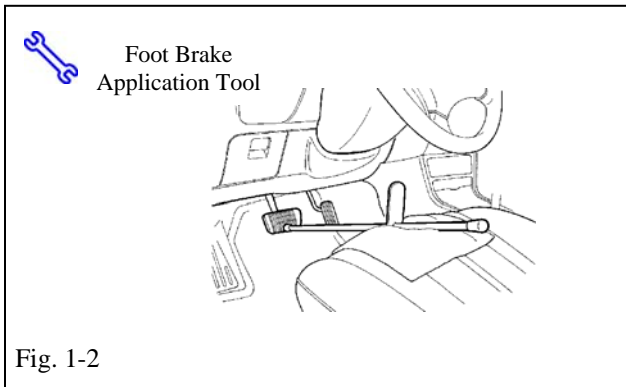


Fig. 1-2

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

(d) Lift vehicle.

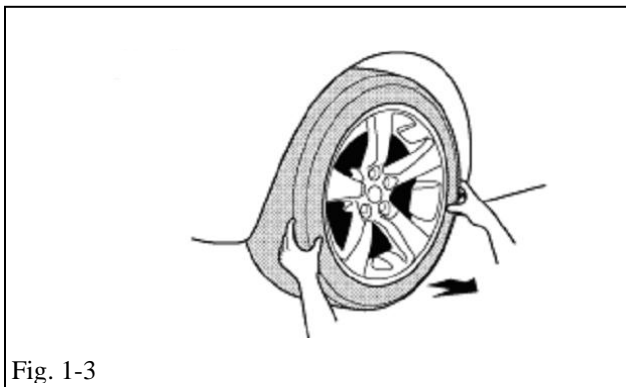


Fig. 1-3



(e) Remove OE wheel and tire assembly from vehicle (Fig. 1-3). Wear safety glasses while removing wheels.

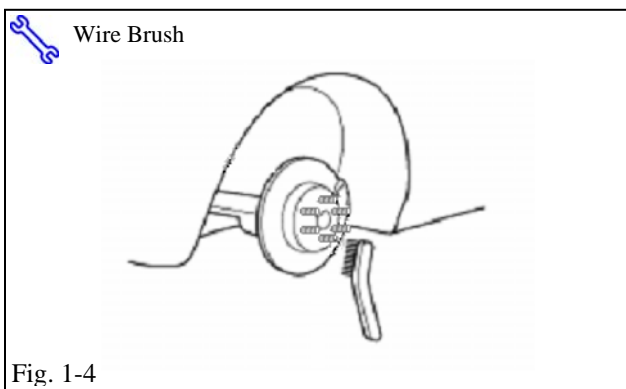


Fig. 1-4



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. 1-4).

TOYOTA '07+Tacoma/'08+FJ Cruiser (16" "Beadlock") TRD ALLOY WHEEL Procedure

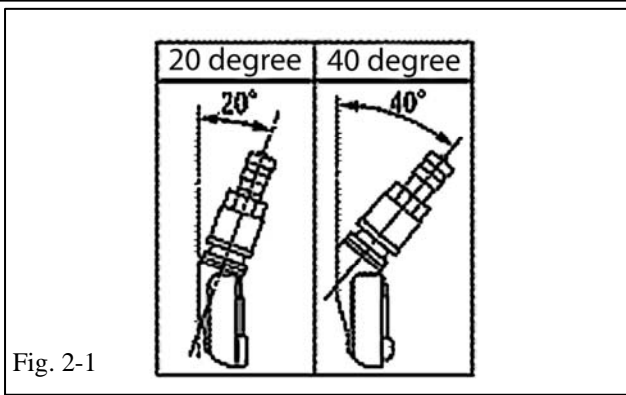


Fig. 2-1

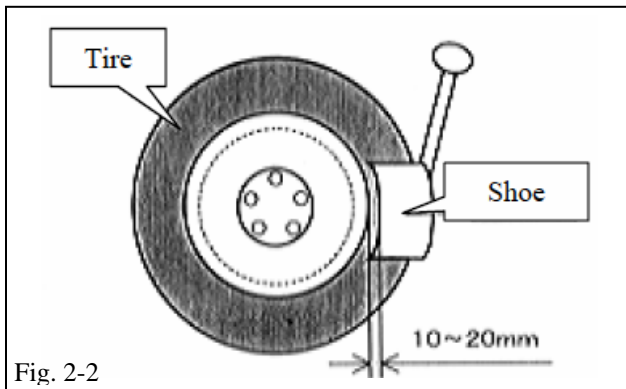


Fig. 2-2

2. Remove Tire Pressure Monitor Valve Sub-assembly.

NOTE: 20 degree Tire Pressure Sensors Should stay with same vehicle!

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

- (a) Remove the valve core and release pressure from the 4 tires, including 5th (spare) for FJ.
- (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 (e.g. Tacoma styled steel wheels), you must install new 20 degree sensors into accessory wheels. When installing new 20 degree sensors, you **MUST** record sensor ID codes for all 4 wheels and register these 4 new ID codes (Fig. 3-1) with the vehicle ECU. Each sensor has a unique sensor ID code. The sensor ID code is a 7 or 8-character hexadecimal string comprised of numbers 0 through 9 and letters A through F. See Fig. 3-1 for example code and location.

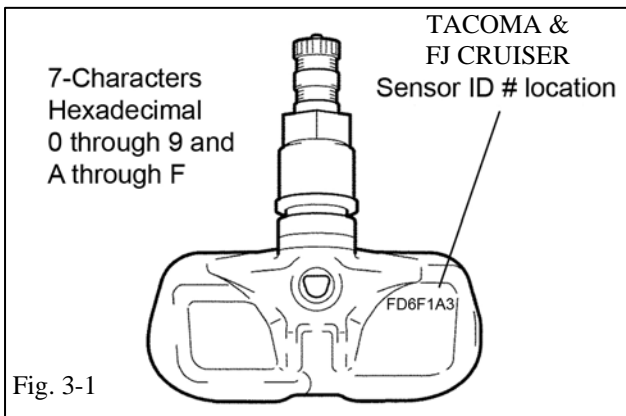


Fig. 3-1

! (b) **IMPORTANT!** Record all 4 or 5 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 ONLY IF the grommet is old 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. See Fig. 3-3.
- (f) Insert the tire pressure monitor valve sub-assembly so that the sensor ID number and text is visible. See Fig. 3-3.



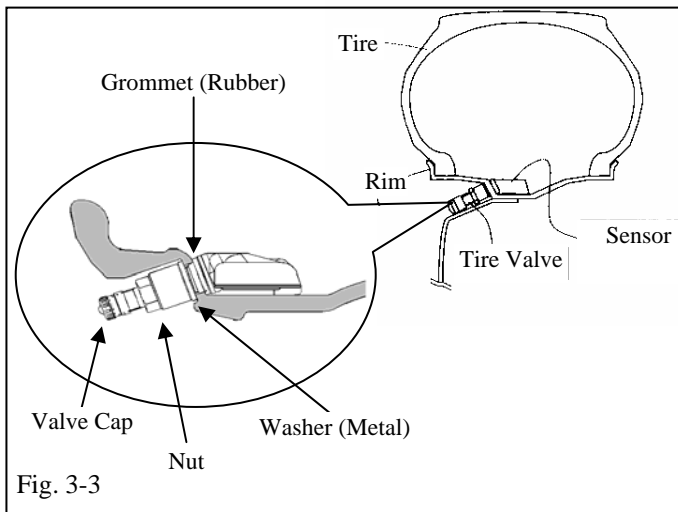
NOTE: Incorrect orientation of pressure monitor sub-assembly may cause damage and prevent signal transmission during high-speed running.



- (g) Install the washer on the outside of the wheel and secure with the nut.



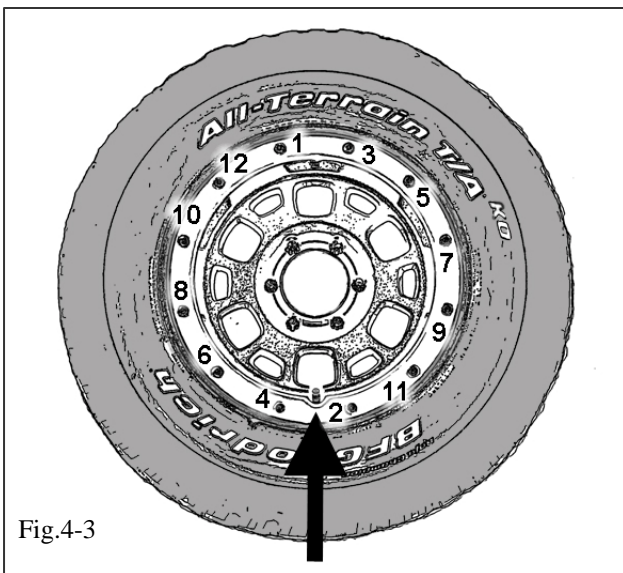
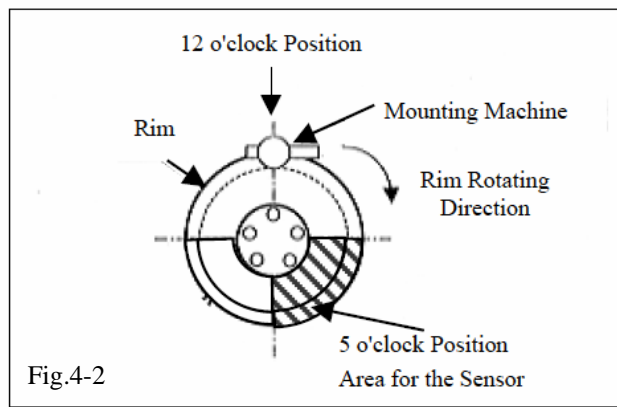
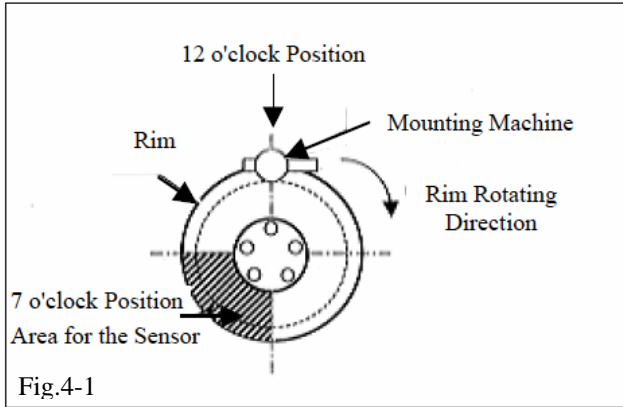
Torque the nut to **36 in-lbf** (4.0 N-m).



4. Tire Mounting.

STOP **IMPORTANT:** Mount tires **BEFORE** installing wheel lock rings!

! **NOTE:** Mount tires with raised white letters facing out on all tires.



- (a) Use tire lube on tire beads, and bead locations on wheel, prior to mounting.
- (b) Position the wheel on the mounting machine with the sensor at ~ 7 o'clock position (shaded area in Fig. 4-1)
 - (1) Mount/dismount head is considered as 12 o'clock.
 - (c) Mount the lower tire bead.

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

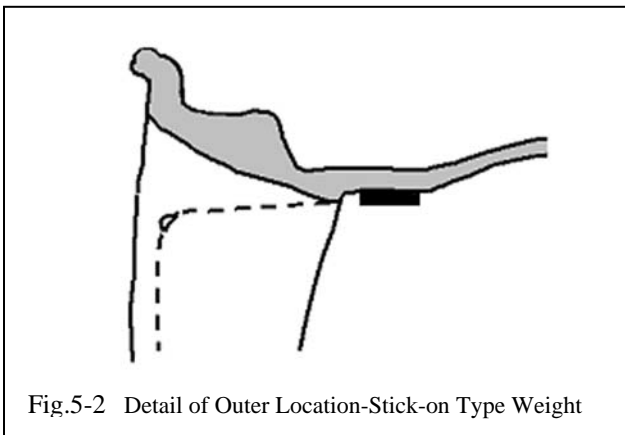
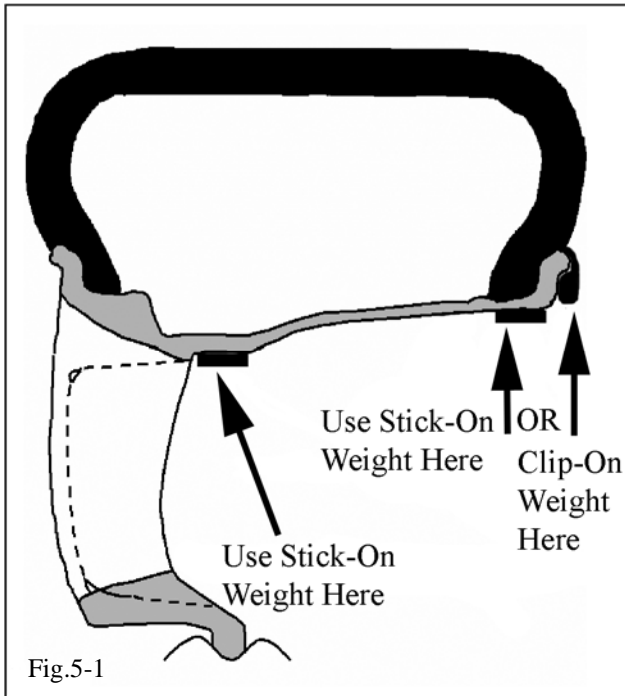
- (d) Re-position the wheel on the mounting machine with the sensor at ~ 5 o'clock position (shaded area in Fig. 4-2)
- (e) Mount upper tire bead.

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 sensor.

- (f) To seat tire beads, inflate tire to 40 PSI. If both tire beads are not seated when pressure registers 40 PSI, deflate the tire and re-inflate to seat the beads. Regulate tire pressure to:

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

Remove tire labels from tire tread prior to balancing. Be sure to Re-Check Torque on TPMS Nuts, and install valve stem caps. Install Lock Rings with notch lined up with valve (See Arrow Fig 4-3). Use provided plastic washers under fastener heads. Tighten fasteners progressively in a star pattern (Fig 4-3). Torque to **75 in-lbf** (8.5 N-m). Make sure the ring is seated parallel in its groove all the way around and does not rattle at all.



5. Wheel Balancing.

⚠ NOTE: Application temperature for stick-on type weight is above 50°F (10°C). Weights should be no taller than 4 ~ 5 mm in height. **Remove tire labels from tire tread prior to balancing.**

(a) Mount wheel/tire on wheel balance machine and balance in DYNAMIC MODE. Enable the LOAD ROLLER, if applicable, to ensure proper bead seating. Use stick-on AND clip-on type weights. (See Figs. 5-1 & 5-2) NOTE: Tape-on weights may be used on inboard plane if desired.

(b) Prior to mounting stick-on weight, use Simple Green & Water solution as needed to clean the weight mounting location on wheel, then wipe down with a clean, dry, lint-free cloth. Ensure that the location is clean and dry. Apply stick-on type weights at perimeter location identified by dynamic balance machine, as shown. Use a rubber mallet, if required, to achieve complete adhesion of stick-on type weight(s).

NOTE: Maximum allowable weight is **200 g (7.0 oz.)** inner plane and **200 g (7.0 oz.)** outer plane. 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. 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 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 4/5** Tire Identification Numbers (TINs) from the **4/5** new tires installed. Record these TINs with the Vehicle Identification Number (VIN) on respective form

[TRD_Tacoma_16in_Tire_ID_Numbers_RevC.xls](#)
[TRD_FJ_16in_Tire_ID_Numbers_RevC.xls](#)

The TIN for these tires is a **12-character** string located after the "DOT" symbol on the sidewall of the tire. Provide the tire information to TRD once per month via FAX. Refer to **CAD PPO Bulletin** database as needed.



For DIO - Record **ALL 4/5** Tire Identification Numbers (TINs) from the **4/5** new tires installed. Record these TINs with the Vehicle ID Number (VIN). Provide the tire information to your tire vendor as required by law.

7. Center Cap Installation.



IMPORTANT! Be sure to install center caps BEFORE installing wheels onto vehicle!



(a) Install caps into wheels as shown in Fig. 7-1. Be sure to orient the TRD text relative to the valve hole as shown. **NOTE:** For FJ Cruiser with back-up camera, place 5th spare wheel center cap into glove box.

8. Vehicle Wheel / Tire Installation.



(a) Install wheel/tire assemblies onto vehicle. Hand start the provided lug nuts during installation. If wheel locks are being added, install one wheel lock per wheel (including spare for FJ) at location 2 in Fig 8-1. Tighten lug nuts in sequence 1 through 6 (Fig. 8-1). Ensure that the socket does not scuff the wheels. Tighten to **83 ft-lbf** (113 N-m) using a torque wrench. **DO NOT USE** an Impact Gun to install or damage may occur to Lugnuts! Air ratchets are OK.

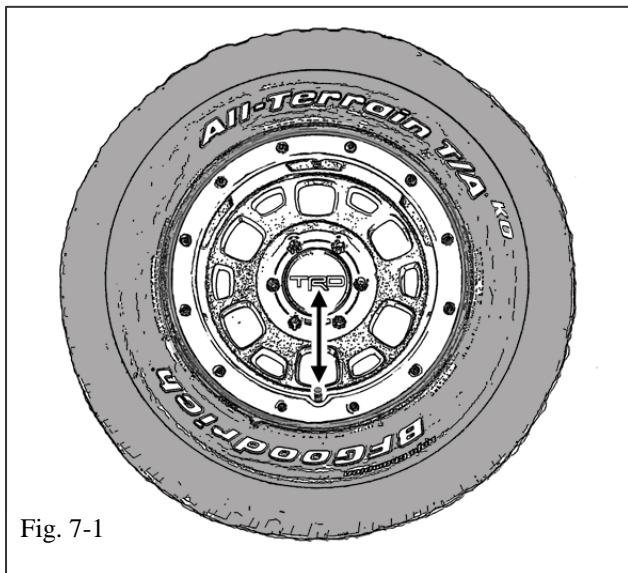


Fig. 7-1

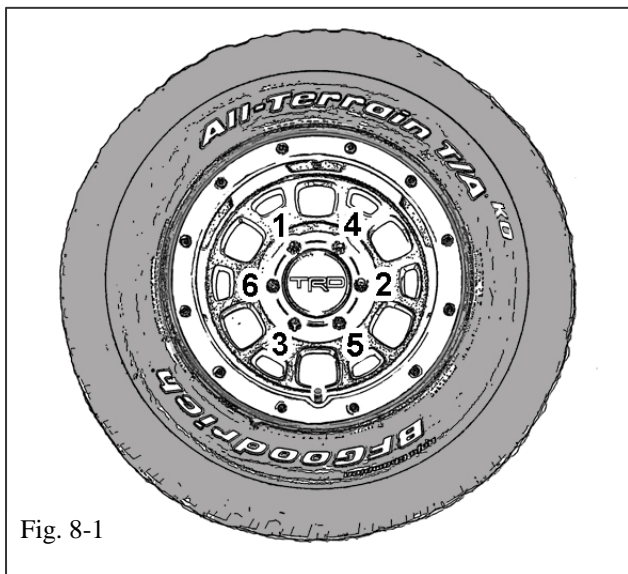


Fig. 8-1

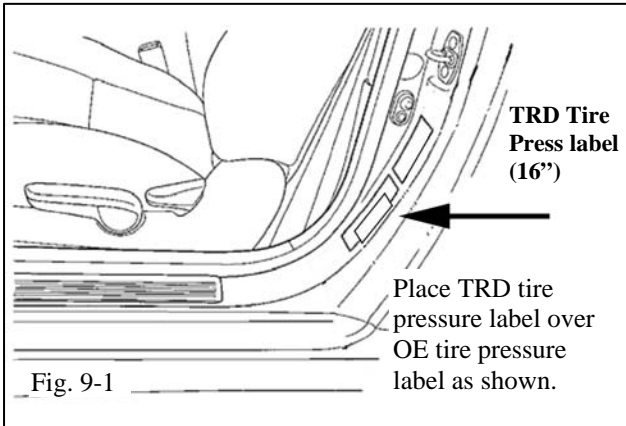


Fig. 9-1

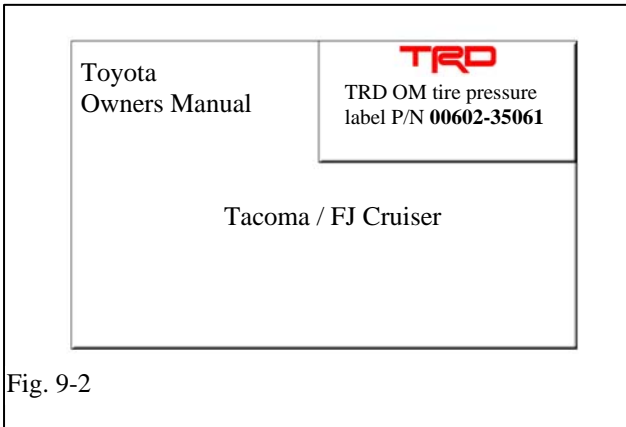


Fig. 9-2

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) Affix the TRD 16 inch tire pressure label TACOMA (MDC # **00602-35015**) FJ-CRUISER (MDC # **00602-35016**) directly over the OE tire pressure label. NOTE: Do NOT cover any cargo or passenger capacity text.(Fig. 9-1)
- (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. Shift label down as needed so as not to cover any pictures or text.

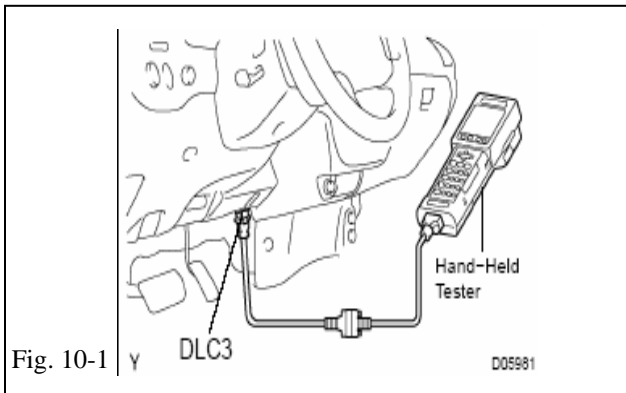


Fig. 10-1

10. TPMS Transmitter ID Registration



Perform ONLY when replacing sensors. Skip to step 12 if re-using same 20 degree sensors in same vehicle. 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: Tundra Spare does NOT have TPMS, but Land Cruiser DOES.

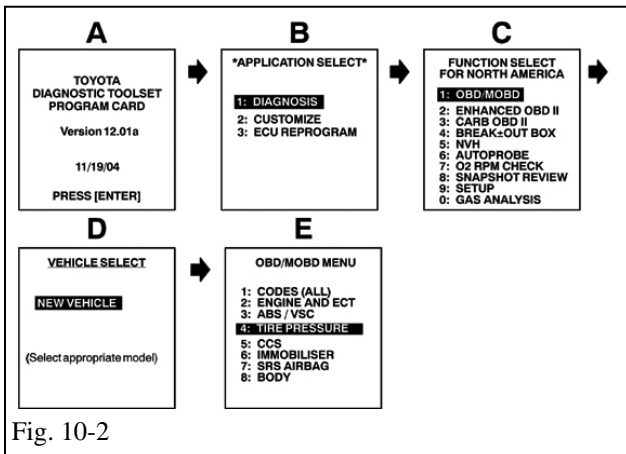


Fig. 10-2

TOYOTA '07+Tacoma/'08+FJ Cruiser (16" "Beadlock") TRD ALLOY WHEEL Procedure

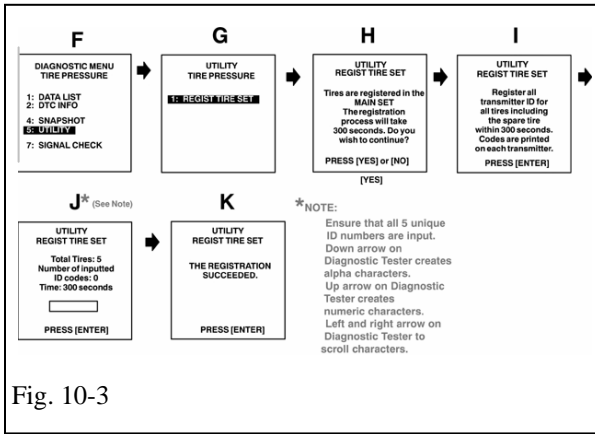


Fig. 10-3

- (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).

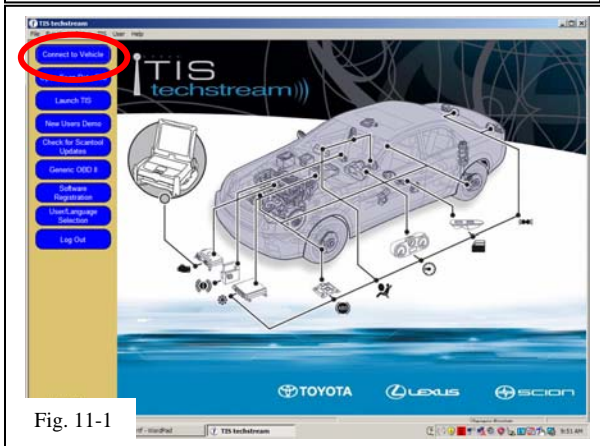


Fig. 11-1

11. TPMS Transmitter ID Registration Using Techstream.

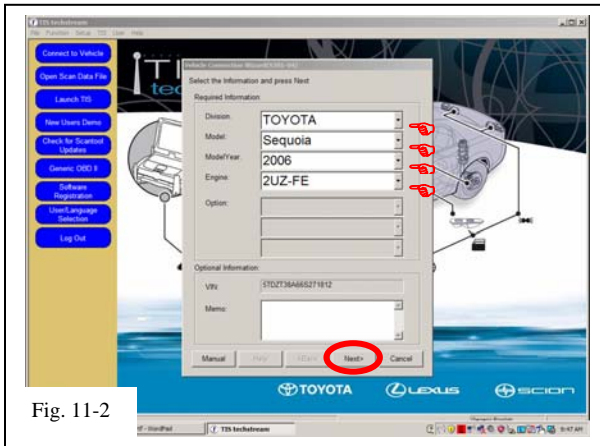


Fig. 11-2

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

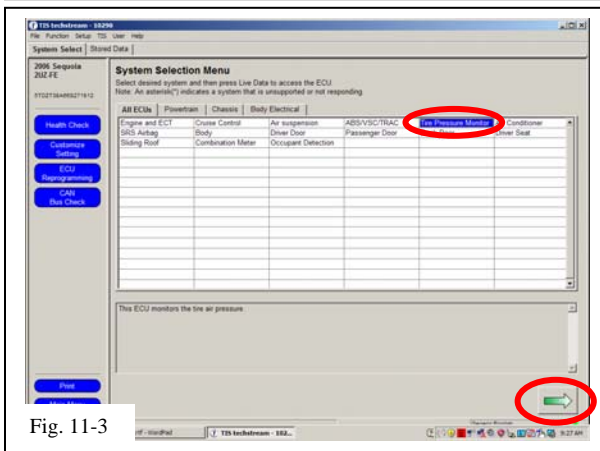


Fig. 11-3

- (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)

TOYOTA '07+Tacoma/'08+FJ Cruiser (16" "Beadlock") TRD ALLOY WHEEL Procedure

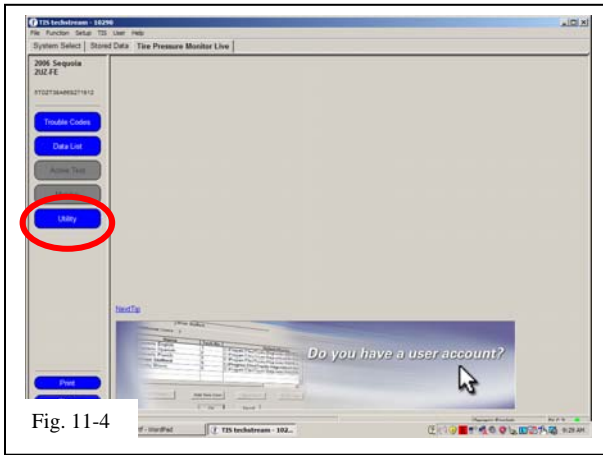


Fig. 11-4

(g) Select “UTILITY” to begin input of new TPMS ID codes (Fig. 11-4).

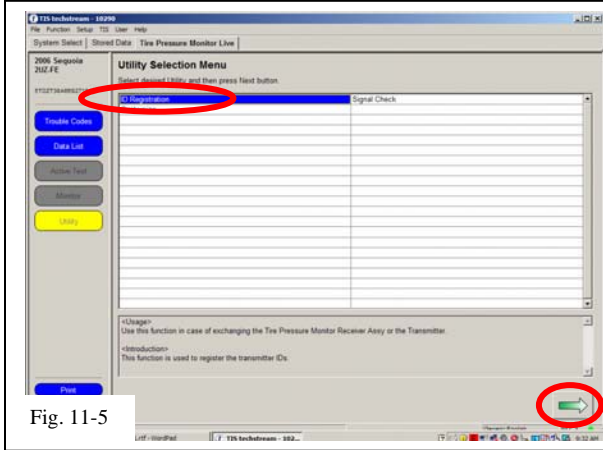


Fig. 11-5

(h) Select “ID Registration” then click the green arrow located at the bottom right corner. (Fig. 11-5)

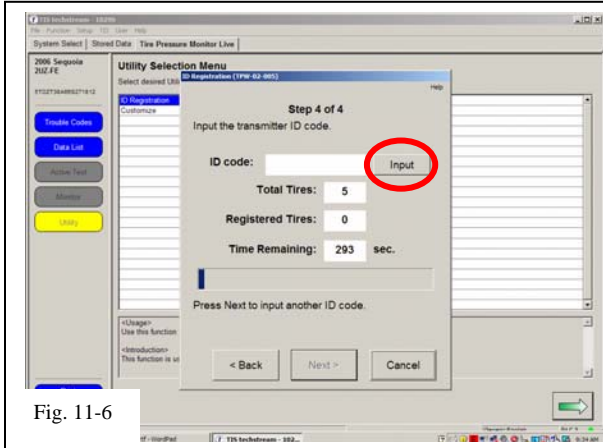


Fig. 11-6

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

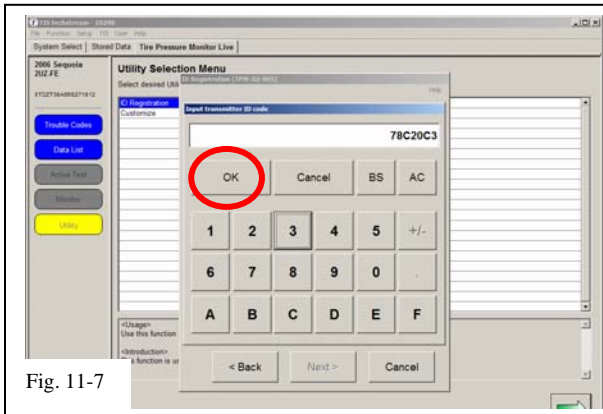


Fig. 11-7

(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).

TOYOTA '07+Tacoma/'08+FJ Cruiser (16" "Beadlock") **TRD** ALLOY WHEEL Procedure

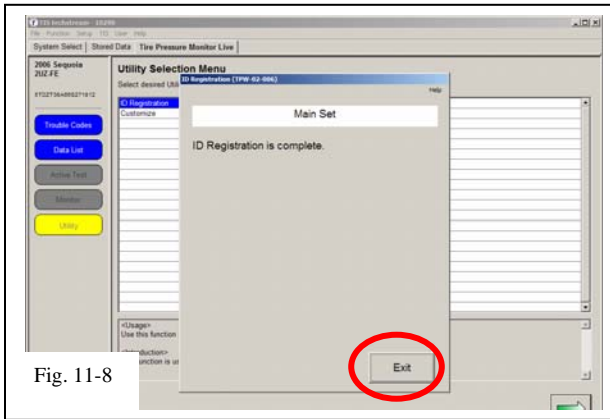


Fig. 11-8

(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).

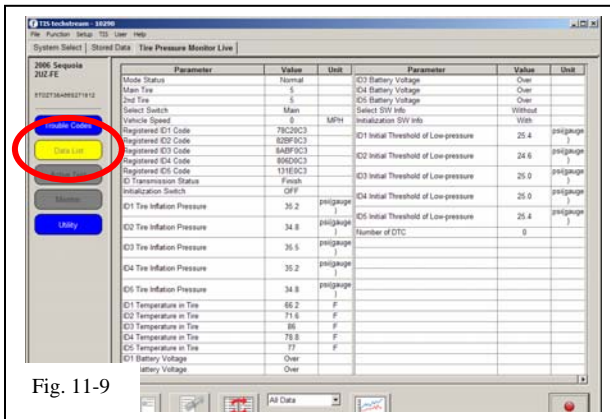


Fig. 11-9

12. Disposition of OE Tire & Wheel Assembly

PPO: Aluminum Take-Off Wheels AND All Take-Off Tires get picked up by Dealer Tire. Aluminum wheels must be in a wheel box. All Steel Take-Off Wheels get salvaged according to local regulations.

DIO: Sort product properly according to local regulations.

13. Lugnut Tool Placement.

PPO/DIO Place the Spline-Drive Lugnut Tool and Lock Key Tool along with the lock instruction card into vinyl pouch (PPO# PT276-06999 / DIO# 00602-06999) and secure inside or next to OE tool bag. Place all associated wheel lock paperwork into vehicle glove compartment.

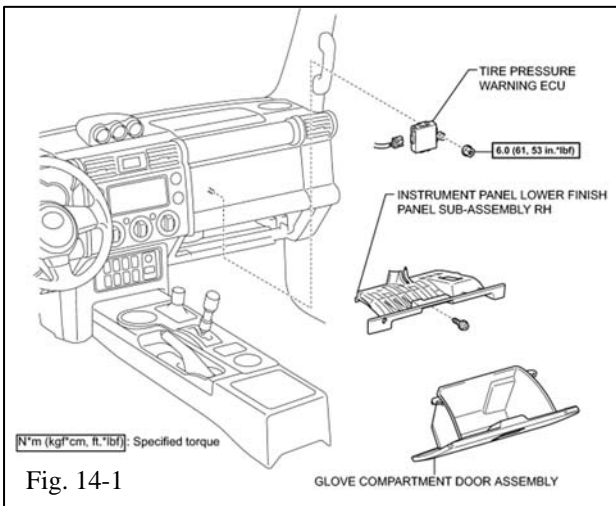


Fig. 14-1

14. Tire Pressure Initialization.

FJ CRUISER ONLY: Remove and Replace the OE TPMS ECU with the new grey Denso TPMS ECU PTR24-35110. See Fig. 14-1 & 14-2. Torque Nut to **53 in-lbf** (6.0 N-m). Consult OE Repair Manual as needed.

TACOMA ONLY: Perform Tire Pressure Warning System Initialization per PDS/TIS for the vehicle using the tire pressure reset button located on the dashboard area in the cabin. Follow example T-SB-0120-10 or equivalent, for your make and model year.

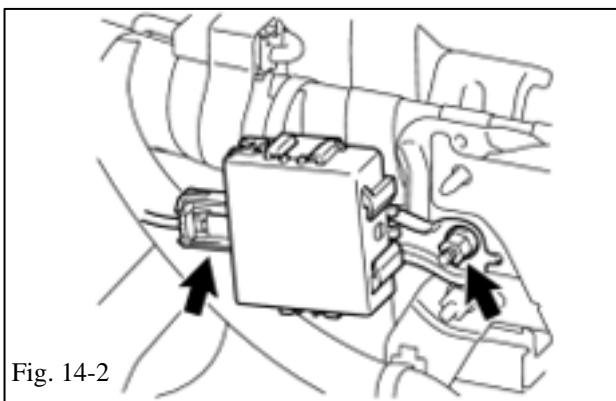





Fig. 14-2

TOYOTA '07+Tacoma/'08+FJ Cruiser (16" "Beadlock") TRD ALLOY WHEEL
Checklist - these points **MUST** be checked to ensure a quality installation.

Check:

- Inspect lug nuts.
-  Lug nut tightness.
-  Center Caps.
- Tire Pressure Labels
-  Correct Tire Pressure
- Tire Identification Numbers
- Lugnut tool placement.

Look For:

Verify six lug nuts/locks must be installed on each wheel (FJ Spare uses 2 lugs & 1 lock).

Verify Torque is **83 ft-lbf** (113 N-m).

Verify center caps are securely in place on all 4 wheels in correct orientation. Verify FJ spare wheel center cap is in glove box.

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 **4/5** accessory Tire Identification Numbers are recorded with the Vehicle Identification Number on the appropriate sheet

[TRD_Tacoma_16in_Tire_ID_Numbers_RevC.xls](#)

[TRD_FJ_16in_Tire_ID_Numbers_RevC.xls](#)

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

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

Verify Lugnut Tool, and Wheel Lock Key Tool if applicable, are in the appropriate location in vehicle. Ensure paperwork is placed into vehicle glove compartment.