Part Number: PTR45-53081 (Front)
PTR45-53082 (Rear)

Kit Contents

Item #	Quantity Reqd.	Description
1	2 per front axle	Forged FRONT Wheel **PTR45-53081** 19” x 8” x 40mm
2	2 per rear axle	Forged REAR Wheel **PTR45-53082** 19” x 9” x 40mm

Hardware Bag Contents

Item #	Quantity Reqd.	Description
1	1 per wheel	F-SPORT Center Cap P/N **PTR45-53080** Matte Grey

Additional Items Required For Installation

Item #	Quantity Reqd.	Description
1 (Required & Sold Separately)	1 per wheel set or 1 per vehicle required	Lug nut Kit w/ Spline Tool & 4 Wheel Locks & Key Tool **PTR27-53080** Black
2	1 per front wheel	Tire: Bridgestone Potenza RE050A **235/40R19 96Y** Summer **DT001-30130**
3	1 per rear wheel	Tire: Bridgestone Potenza RE050A **265/35R19 94Y** Summer **DT001-30131**
4	As needed	TPMS 20-degree angle Consult EPC or MicroCAT to verify P/N for model and year.
5	As needed	Low-Profile, Lead-Free Balance Weights **3M TN-4023** (or equivalent) Stick-on Type
6	1	Tire Pressure Door Jamb Label MDC # **00602-30130**
7	1	Owner’s Manual Label MDC # **00602-35062**
8	1 PPO DIO	Vinyl Pouch **PT276-06999** Vinyl Pouch **00602-06999**
9	1	Port Brochure **00276-00890** (PPO only)

Conflicts

Hybrid models & GS F

General Applicability

2013+ GS, 2015+ RC

Vehicle Service Parts (May be required for reassembly)

Item #	Quantity Reqd.	Description
1	0–4 as needed	Valve Stem Grommet Fit Kit (if required) P/N **04423 -0E010 or -33030**
2	0 – 4 as needed	20° TPMS Consult EPC or MicroCAT
3	0 – 4 as needed	Valve Stem Cap **90942-05037**

Recommended Tools

Personal & Vehicle Protection	**Notes**
Safety Glasses	
Seat Protection	Blanket
Special Tools	**Notes**
Tire Changing Machine	Hunter TC3200 or equiv.
4 External Rubber Clamp Jaws	Hunter RP6-8659 or equiv.
Wheel Balancing Machine	Hunter GSP9700 or equiv.
Centering Cone	Hunter **BACK-SIDE** collet **192-52-2** or equiv.
Wing Nut	Hunter **76-371-3** or equiv.
Protector Sleeve	Hunter **106-82-2** or equiv.
4.5” Cup w/ Sleeve	Hunter **175-353-1** or equiv.
Foot Brake Application Tool	Snap-on B240A or equiv.
Lexus Diagnostic Tester or Techstream Device	Software Version 13.2a or newer required.
Tire Press. Warning System	00002-TTPWS or equiv.
Installation Tools	**Notes**
Lug Nut Wrench	21 mm wrench flat
Rubber Mallet	Clean Lint-free Cloth
Torque Wrench	20-150 ft-lbf (27-204 N-m)
Torque Wrench	30-150 in-lbf (3.3-17 N-m)
Ratchets	Air and/or manual, 3/8” or 1/2” drive
Sockets	11mm and 21 mm Deep Well, Thin Wall
4 inch extension	For TPMS torque wrench
Nylon Panel Removal Tool	Toyota SST # 00002-06001-01
Valve Stem Removal Tool	Schraeder Valve Type
Wire Brush	Hand held size
Special Chemicals	**Notes**
Tire Lube / Paste	Myers or equivalent
Cleaner (for rework of stick on weights if needed)	**PPO/DIO**: VDC approved cleaner.

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.

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.

1. Prepare the Vehicle.

(a) Firmly apply the parking brake.

(b) Put automatic transmission in "P" (Fig. 1-1). Put manual transmission in “R”.

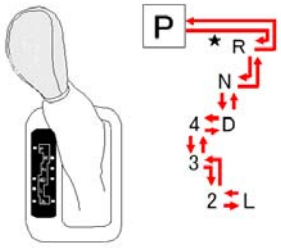

Fig. 1-1

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

(d) Lift the vehicle.

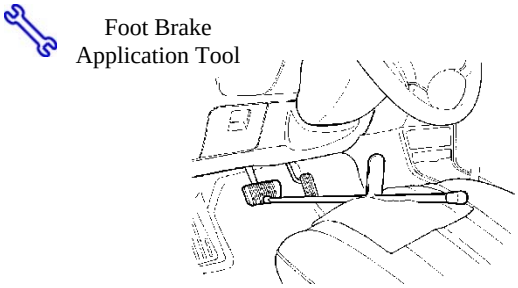

Fig. 1-2

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

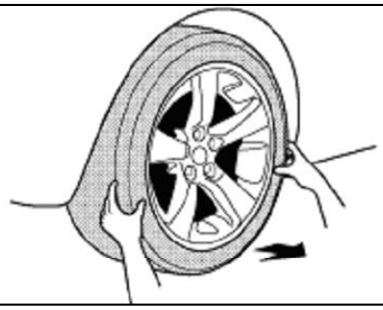

Fig. 1-3

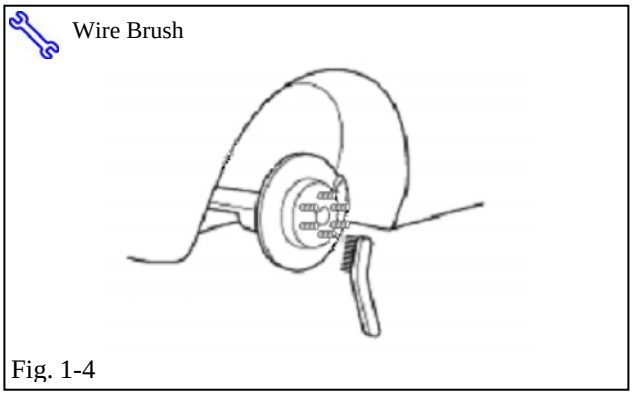

Fig. 1-4

(f) 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.

NOTE: The 20-degree Tire Pressure Sensors should stay with the same vehicle!

NO 40-degree sensors are reused on ANY Accessory Alloy Wheels! (Fig. 2-1)

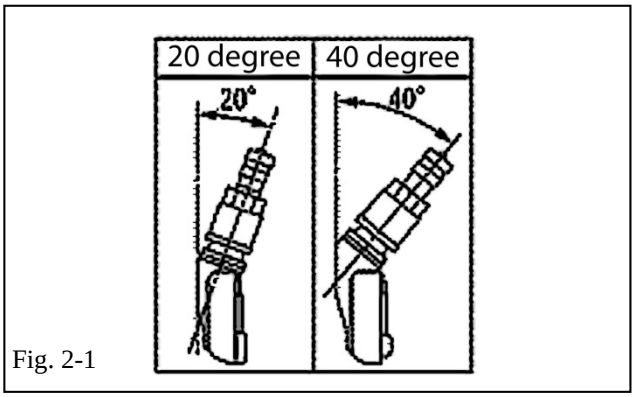

Fig. 2-1

(a) Remove the valve core and release the air pressure from all four tires.

(b) Remove the nut and washer and let the pressure sensor drop inside the tire.

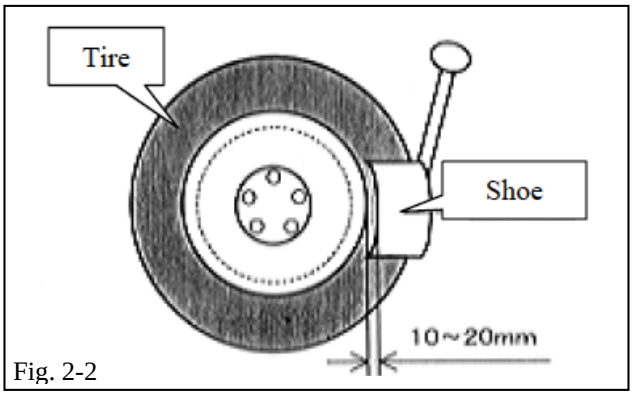

Fig. 2-2

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

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/inner side as in the usual tire removal operation.

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

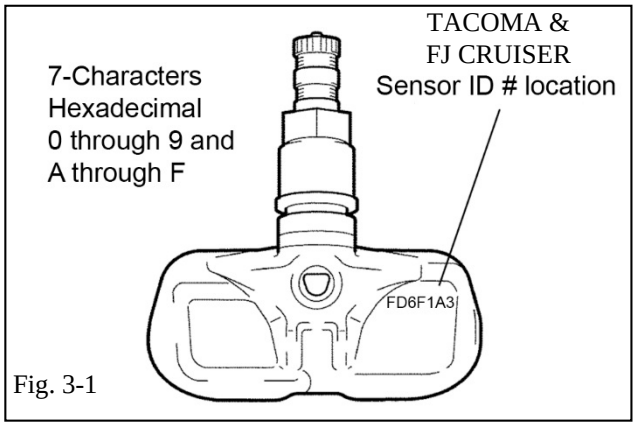

Fig. 3-1

3. Install the Tire Pressure Monitor Sensor (TPMS) Sub-Assembly into the TRD Accessory Wheel.

(a) If the previously removed sensor is a 20 degree sensor, proceed to Step 3(c). If the previously removed sensor is a 40 degree sensor, you must install new 20 degree sensors into the accessory wheels. When installing new 20 degree sensors, you **MUST** record the sensor ID codes for all four wheels and register these four 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.

(b) **IMPORTANT!** Record all four 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 in good condition.

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

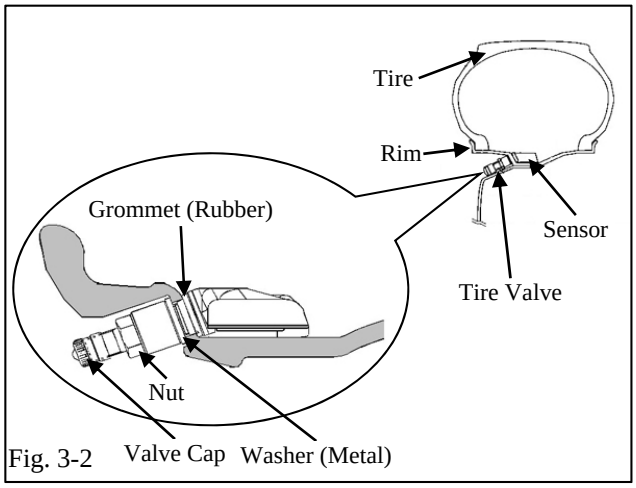

Fig. 3-2

(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) Insert the tire pressure monitor valve sub-assembly so that the sensor ID number and text is visible (Fig. 3-2).

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

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

Torque: 36 in-lbf (4.0 N-m)

4. Mount the Tires.

NOTE: If the vehicle came stock with staggered fit OE 19” tires, reuse the OE 19” tires. If the vehicle came stock with other size tires (e.g. 18” or 17”), remove and sort per local regulations. Use only the tires specified on the front page of these instructions.

IMPORTANT: The rear 19 x 9 wheel is a <u>Reverse Mount Wheel!</u> Bridgestone Potenza Tires have an inside and an outside! Ensure that the outside faces out! The side is indicated on the tire sidewall.

(a) Remove the tire decals from the tire prior to mounting. Check <u>all</u> tires for direction.

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

UPPER AND LOWER BEAD PLACEMENT

CLOCKWISE ROTATION

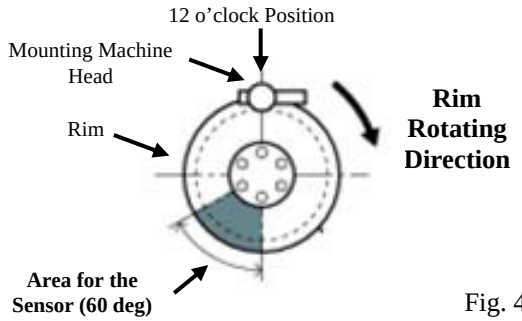

Fig. 4-1

UPPER AND LOWER BEAD PLACEMENT

COUNTER-CLOCKWISE ROTATION

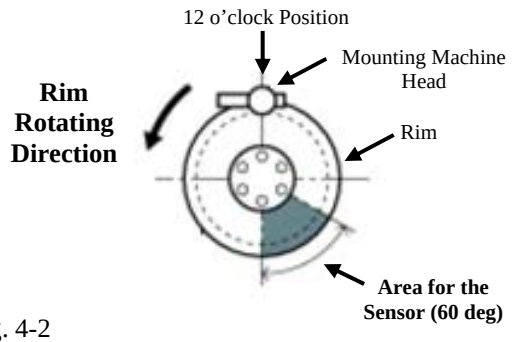

Fig. 4-2

(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.

(e) Re-position the wheel on the mounting machine with the sensor at ~ 7 o'clock position (shaded area in Fig. 4-1).

(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 but not more than 40 PSI. If both tire beads are not seated when the pressure registers 40 PSI, deflate the tire and re-inflate it to seat the beads. Regulate the tire pressure to:

FRONT: **35** PSI, REAR: **36** PSI

NOTE: If the OE tires are reused, set the pressures to the OE settings, as shown on the OE door jamb tire pressure label.

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

Torque: 36 in-lbf (4.0 N-m)

(i) 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).

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

(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 TN-4023** or equivalent stick-on type tape weights (Figs. 5-1 & 5-2).

NOTE: The maximum allowable weight is **100 g** (3.5 oz.) on the inner plane and 1**00 g** (3.5 oz.) on the outer plane. 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 re-applying new weight(s). DO NOT RE-USE STICK-ON WEIGHTS.

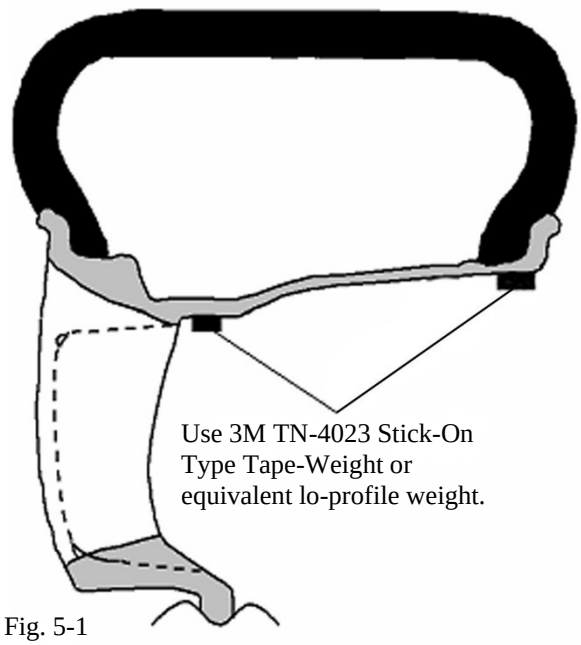

Fig. 5-1

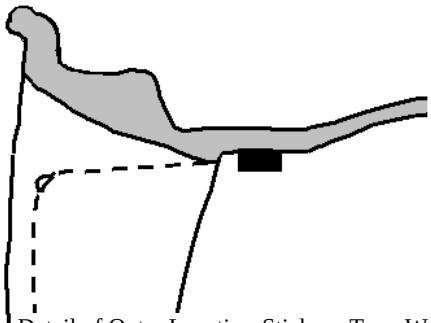

Fig. 5-2 Detail of Outer Location-Stick-on Type Weight

(c) 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).

PPO Only – Record **ALL 4 T**ire **I**dentification **N**umbers (TINs) from the **4** new tires installed. Record these TINs with the Vehicle Identification Number (VIN) on form:

F-SPORT_GS_19in_Tire_ID_Numbers_RevA.xls and/or the electronic Port/VDC recording system.

The TIN for these tires is normally a **12**-character string located after the "DOT" symbol on the sidewall of the tire. Refer to the **CAD PPO Bulletin** database as needed.

DIO Only – Record **ALL T**ire **I**dentification **N**umbers (TINs) from the 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. Install the Center Caps.

IMPORTANT! Be sure to install the center caps <u>BEFORE</u> installing the wheels onto the vehicle!

(a) Install the caps into the wheels as shown in Fig. 7-1. Be sure to orient the F-Sport text relative to the valve hole as shown (Fig. 7-2).

Fig. 7-1

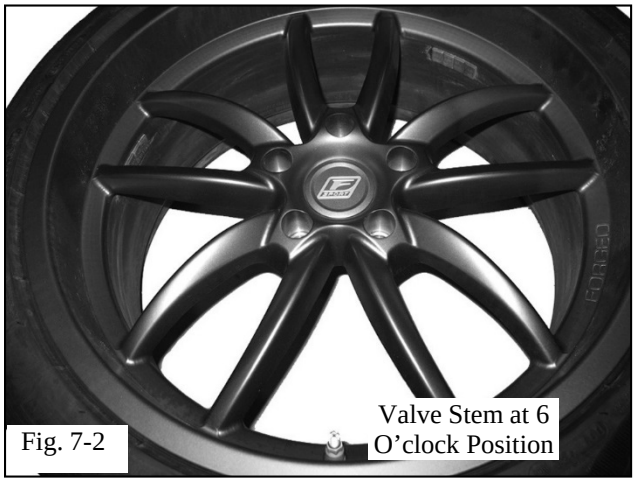

Fig. 7-2

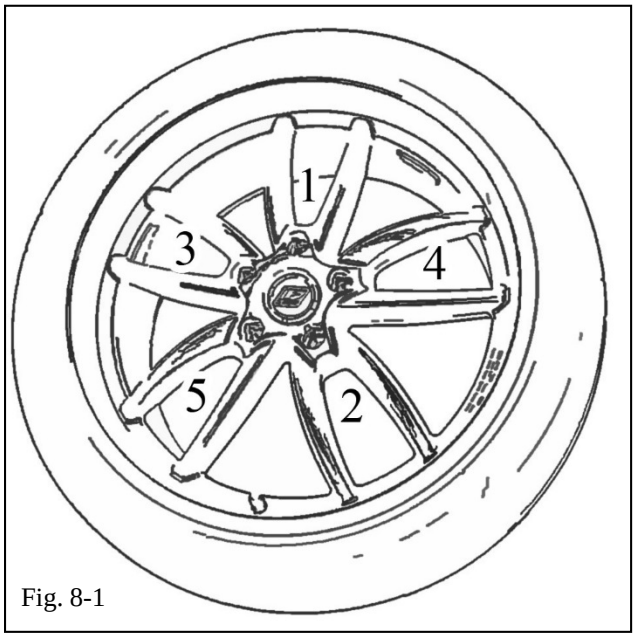

Fig. 8-1

8. Install the Wheels / Tires on the Vehicle.

(a) Install the wheel/tire assemblies onto the vehicle. Hand start the provided lug nuts. Install one wheel lock per wheel (not including the spare) at the number 1 position, opposite the valve stem (Fig. 8-1).

CAUTION: Be sure not to scratch the calipers when installing the wheels, especially over F-SPORT calipers.

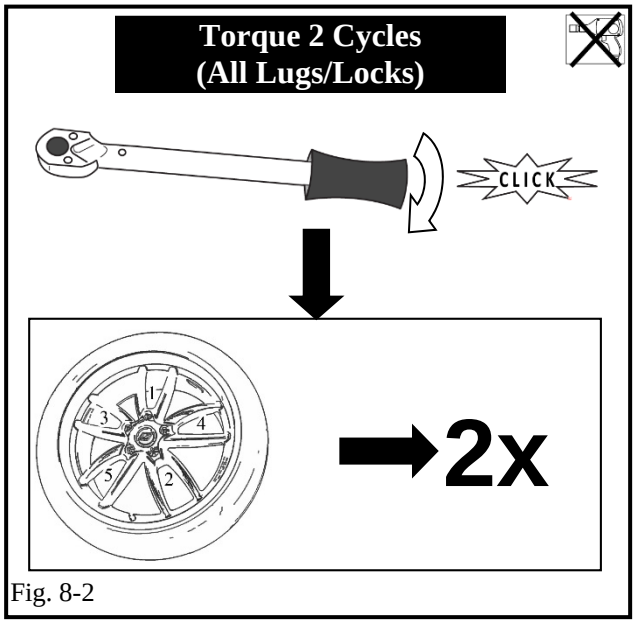

Fig. 8-2

(b) Tighten the lug nuts in sequence 1 through 5 (Fig. 8-2). Ensure that the socket does not scuff the wheels. Tighten to 76 ft-lbf (103 N-m) using a torque wrench.

Torque: 76 ft-lbf (103 N-m)

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

Torque: 76 ft-lbf (103 N-m)

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

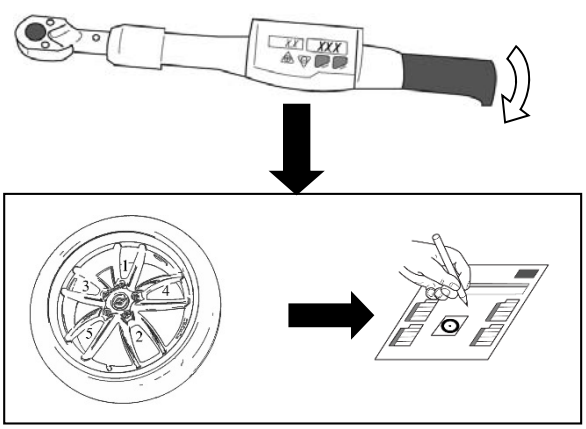

Fig. 8-3

(d) With the vehicle still on the lift, use a digital torque wrench to measure the torque of each lug nut/lock and record it on the Torque Audit Sheet (Fig. 8-3) (PPO installation only, does not apply to DIO installation).

9. Place the Tire Pressure Labels.

NOTE: This step is not required when re-using the OE tires.

(a) Clean the surface and a small area around the OE tire pressure label located on the driver's side door jamb.

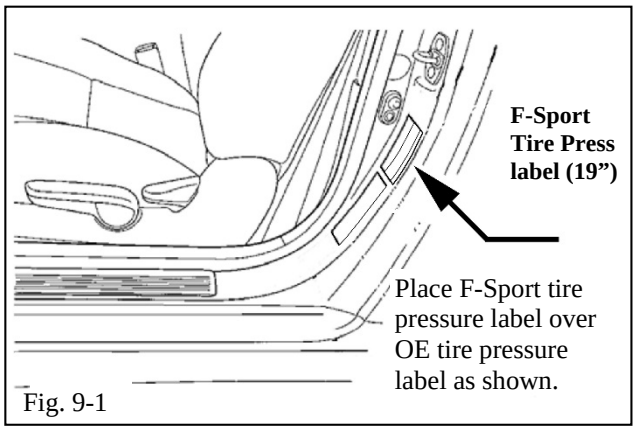

Fig. 9-1

(b) Affix the F-Sport 19-inch tire pressure label (MDC P/N **00602-30130)** directly over the OE tire pressure label (Fig. 9-1).

⚠ **NOTE:** Do NOT cover any cargo or passenger capacity text.

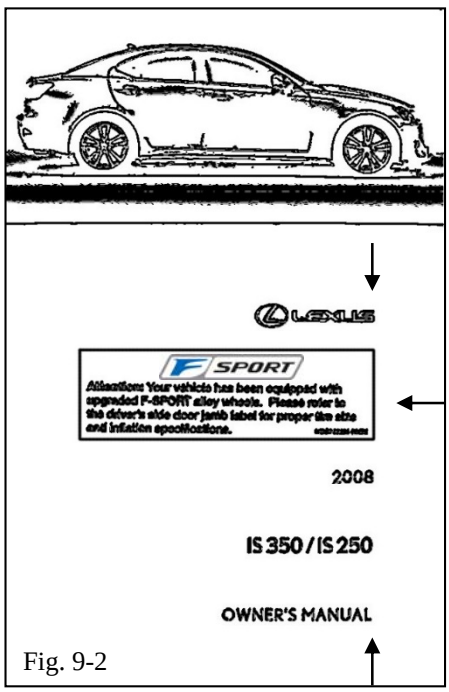

Fig. 9-2

(c) Install the Owner's Manual Label (MDC P/N **00602-35062)** onto the front cover of the owner's manual (Fig. 9-2). Line up the right side of the label with the text stack as shown by the arrows in Fig. 9-2. Center the label vertically between LEXUS & year text.

⚠ **NOTE:** Be sure NOT to cover any existing text or information.

10. Register the TPMS Transmitter IDs.

NOTE: Perform ONLY when replacing sensors. Skip to Step 12 if the original 20-degree sensors are reused.

NOTE: Skip to Step 11 if a Techstream Device is used.

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

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

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

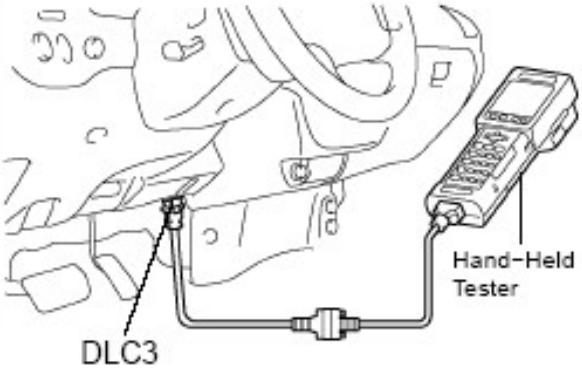

Fig. 10-1

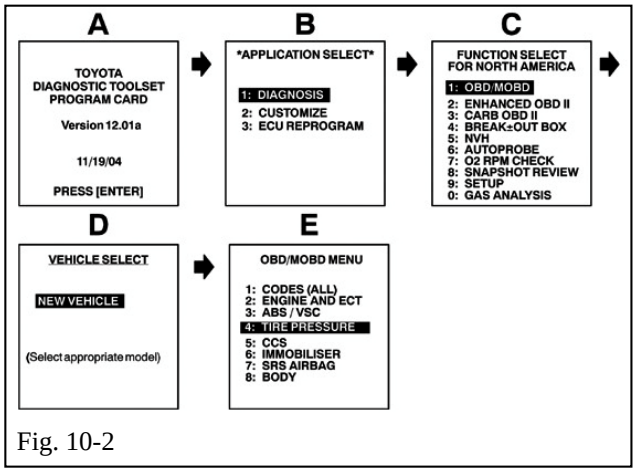

Fig. 10-2

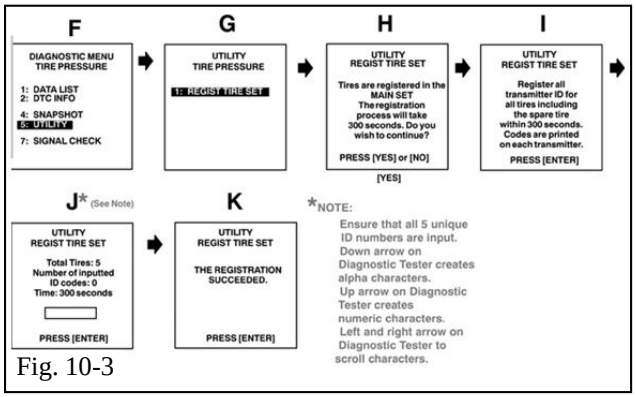

Fig. 10-3

(d) Turn on the 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:** The spare does not have a 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).

11. Register the TPMS Transmitter IDs Using Techstream.

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

(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.

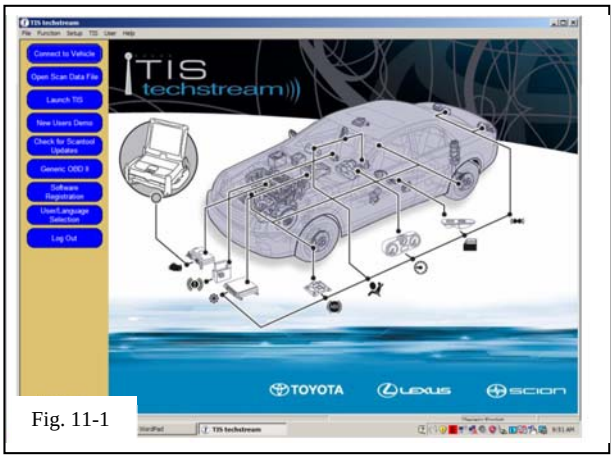

Fig. 11-1

(d) Click "**Connect to Vehicle**" button (Fig. 11-1).

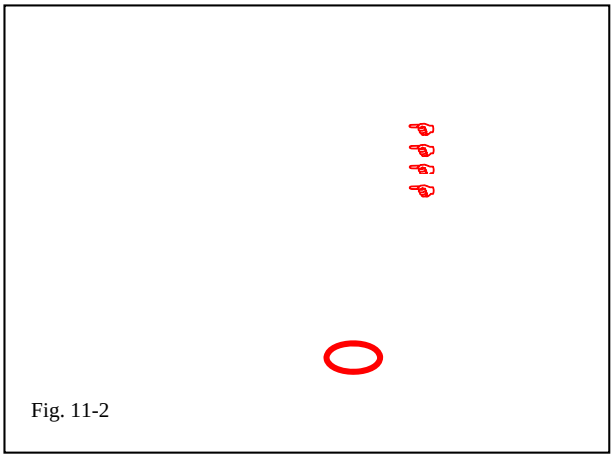
Fig. 11-2

(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. 11-2).

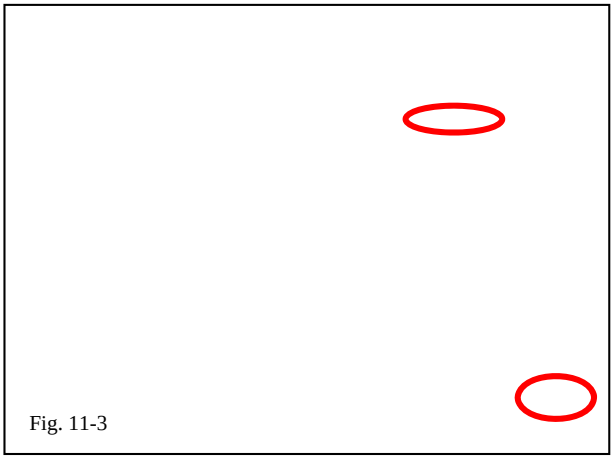
Fig. 11-3

(f) Select "**Tire Pressure Monitor**" then click the green arrow located on the bottom right (Fig. 11-3).

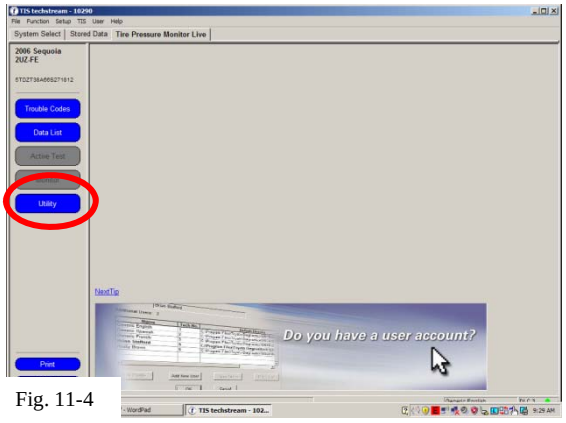

Fig. 11-4

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

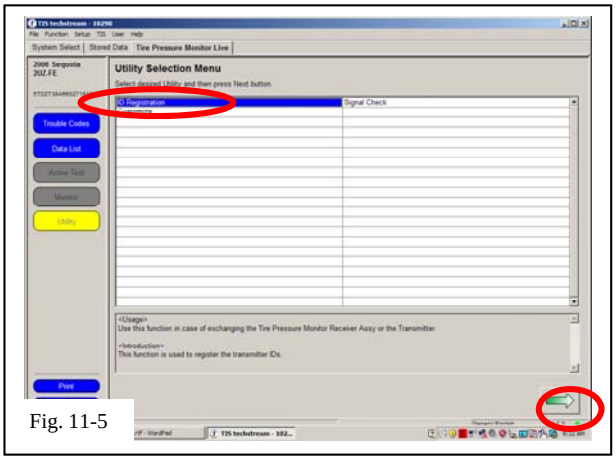

Fig. 11-5

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

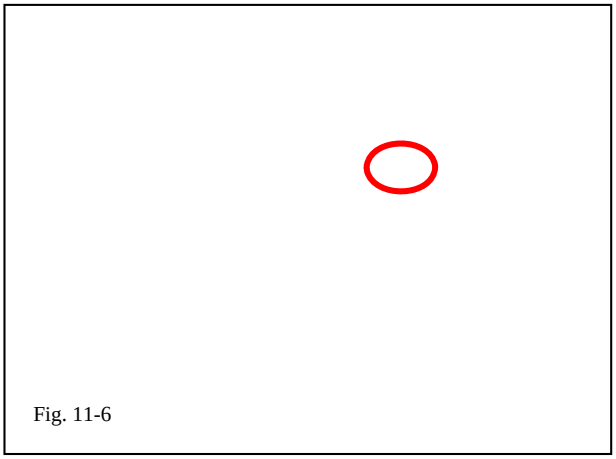

Fig. 11-6

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

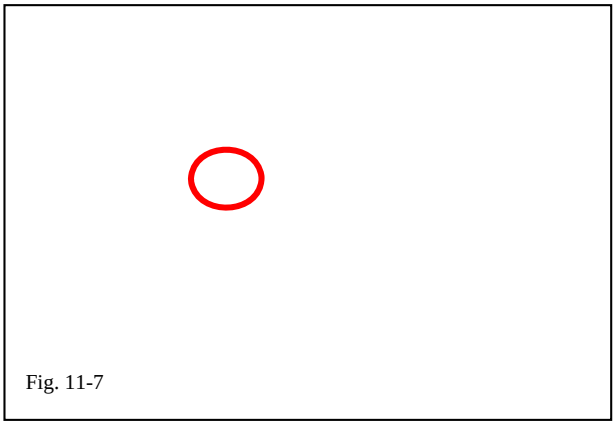

Fig. 11-7

(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).

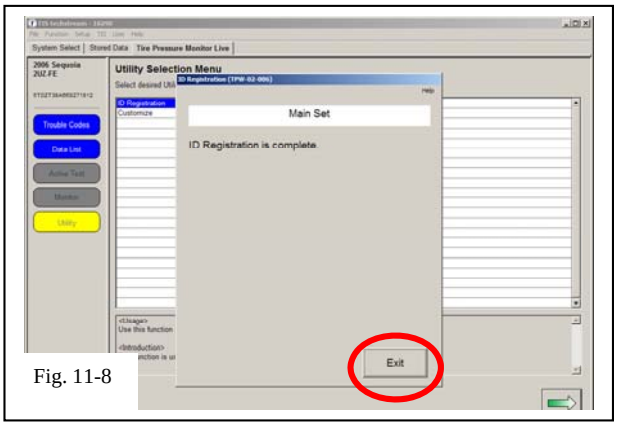

Fig. 11-8

(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).

Fig. 11-9

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

12. Dispose of the OE Tire & Wheel Assembly.

PPO: All take-off tires get picked up by Dealer Tire. All take-off wheels get salvaged according to local regulations.

DIO: Sort product properly according to local regulations.

13. Place the Lug Nut Tool.

(a) Place the Spline-Drive Lug Nut Tool and Lock Key Tool along with the lock instruction card into the vinyl pouch (PPO# PT276-06999 / DIO# 00602-06999) and secure it inside the tool bag in the trunk. If no tool bag is present, securely place it in the trunk compartment next to the tire iron. Place all associated wheel lock paperwork into the vehicle glove compartment (use a Port Brochure Ziplock Bag if available). The wire tie may be discarded.

14. Initialize the Tire Pressure Warning System.

(a) Perform the Tire Pressure Warning System Initialization per PDS for the vehicle.

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

Check:	Look For:
☐ Inspect Lug Nuts & Torque	Verify that five lug nuts/locks are installed on each wheel and the wheel lock is in the correct position. Torque must be **76 ft-lbf (103 N-m)**.
☐ TPMS Torque	TPMS nut must be torqued to **36 in-lbf (4.0 N-m)**.
☐ Record Lug & Lock Torque	Measure the torque of each lug/lock on all wheels and record it on the Torque Audit Sheet (PPO installation only, does not apply to DIO installation).
☐ Center Caps	Verify center caps are securely in place on all four wheels & oriented correctly.
☐ Tire Pressure Labels	Verify Tire Pressure Label and Owner's Manual Labels are in place.
☐ Correct Tire Pressure	Verify tire pressure is set to the value specified on the F-Sport Tire Pressure Label.
☐ Driver Instrument Panel	Verify "TPMS warning light" is <u>not</u> ON.
☐ Tire Identification Numbers	**PPO**: Ensure all **4** accessory **T**ire **I**dentification **N**umbers are recorded with the **V**ehicle **I**dentification **N**umber on the F-Sport_GS_19in_Tire_ID_Numbers_RevA.xls sheet and/or electronic Port/VDC recording system. Refer to the **CAD PPO Bulletin** as needed. **DIO**: Provide the tire information to your tire vendor as required by law.
☐ Lug Nut Tool & Lock Placement	Verify the Lug Nut Tool & Wheel Lock Key are in the appropriate location in the vehicle and the associated paperwork is placed into the vehicle glove compartment.

<u>Vehicle Appearance Check</u>

☐ 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 TMS Accessory Quality Shipping Standard.