

# TOYOTA

## SERVICE BULLETIN

TOYOTA MOTOR SALES, U.S.A., INC.

VOLUME

**10**

REFERENCE	PRODUCT GENERAL INFORMATION
NUMBER	<u>033 (REVISED)</u>
DATE	<u>11-16-90</u>
MODEL	<u>ALL MODELS</u>

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### 1991 PRE-DELIVERY SERVICE (PDS) (REVISED)

When performing New Car Pre-Delivery Service (PDS), move the vehicle from the storage area to a service bay. Assure that the unit is clean in order to properly inspect the exterior. Release and open the engine hood and trunk lid and install all required parts prior to inspection.

#### A. INSTALLATION

- A01 Install outside rearview mirrors\*
- A02 Inspect tires for defects or damage and adjust air pressure.

#### INSPECTION

- Inspect for any abnormal condition, operation, loose or missing parts.
- Tire pressure must be checked "cold," meaning the car must not have been driven for at least three hours.

#### RECOMMENDED TIRE AIR PRESSURE

##### All Toyota Vehicles

The recommended tire inflation pressure changes with tire size, driving conditions and vehicle model. For precise tire pressures, refer to the Owner's Manual and tire information label located on the vehicle.

- Note:
- Compact spare- 60 psi (4.2 kg/cm<sup>2</sup>)
  - Tire sidewall "Maximum" cold tire inflation pressure should not be used for normal driving.

- A03 Check wheel lug nut torque
- Torque Specification-  
All Models  
- See owner's manual or repair manual.

A04 Install wheel covers/caps

\*Inspect or install as equipped/required

**1991 PRE-DELIVERY SERVICE (Cont'd)**

**B. UNDERHOOD**

**B01 INSTALL REQUIRED FUSES \***

MODEL	FUSE FOR	STORED IN
MX/MA/AT/ST SW/EL/VN/FJ/ TMC produced SV/VV/AE only	DOME LIGHT	FUSE BLOCK
AE WITH A/TM	DOME LIGHT & CIGARETTE LIGHTER	FUSE BLOCK & GLOVE BOX
AC		GLOVE BOX
RN	Not required on RN models	

**INSPECTION**

- |     |  |   |
|-----|--|---|
| B02 | Check engine oil level                               | <ul style="list-style-type: none"> <li>● Visually inspect dipstick.</li> </ul>  |
| B03 | Check power steering fluid level                     | <ul style="list-style-type: none"> <li>● Same as above.</li> </ul>  |
| B04 | Check washer and coolant fluid levels                | <ul style="list-style-type: none"> <li>● Visually inspect using see-through reservoirs if equipped.</li> </ul>            |
| B05 | Check automatic transmission fluid level*            | <ul style="list-style-type: none"> <li>● Visually inspect dipstick with engine running.</li> </ul>                        |
| B06 | Inspect for fuel, oil, coolant, or other fluid leaks | <ul style="list-style-type: none"> <li>● Inspect connections and condition as required.</li> </ul>                        |
| B07 | Check writing and hose condition                     | <ul style="list-style-type: none"> <li>● Same as above.</li> </ul>  |
| B08 | Check battery terminal tightness                     | <ul style="list-style-type: none"> <li>● Inspect connections</li> </ul>   |
| B09 | Check brake and clutch fluid levels*                 | <ul style="list-style-type: none"> <li>● Visually inspect using see-through reservoirs. Condition as required.</li> </ul> |

Close engine hood following the underhood inspection.  
Inspect the vehicle interior as follows:

\*Inspect or install as equipped/required

**1991 PRE-DELIVERY SERVICE (Cont'd)****C. VEHICLE INTERIOR****INSPECTION**

- |  |  |
|--|--|
| <p>C01 Visually inspect all interior parts for installation, damage, fit, dirt, etc. from the driver's seat.</p> <p>C02 Inspect carpet fit/alignment</p> | <ul style="list-style-type: none"> <li>● Inspect for any abnormal condition, operation, loose or missing parts.</li> </ul> |
|--|--|

Open driver's door, turn headlight switch "on" and release fuel door. Inspect vehicle exterior in a counter-clockwise fashion as follows:

**D. VEHICLE EXTERIOR****INSPECTION**

- |  |  |
|--|--|
| <p>D01 Inspect paint finish for rust, dents, scratches, chips, damage, etc.</p> <p>D02 Inspect exterior body parts for proper installation, damage, rust, etc.</p> | <ul style="list-style-type: none"> <li>● Inspect for any abnormal condition, operation, loose or missing parts.</li> </ul> |
|--|--|

Open and close all doors, check door operation, fit and interior condition including operation of window regulators. Set child safety door locks in normal "off" position. Check trunk components as follows:

**E. LUGGAGE COMPARTMENT****INSPECTION**

- |  |   |
|--|---|
| <p>E01 Check light operation*</p> <p>E02 Check spare wheel, jack and tool installation</p> <p>E03 Check spare tire pressure</p> <p>E04 Check trim appearance/trunk mat fit</p> | <ul style="list-style-type: none"> <li>● Visually inspect for any abnormal conditions.</li> <li>● Same as above.</li> <li>● Note: Compact spare-60 psi (4.2 kg/cm<sup>2</sup>)</li> </ul> |
|--|---|

Raise vehicle for underside inspection.

\*Inspect or install when equipped/required

## 1991 PRE-DELIVERY SERVICE (Cont'd)

### **F. UNDER VEHICLE (ON HOIST)**

### **INSPECTION**

#### **F01 REMOVE DISC BRAKE ANTI-RUST COVERS\***

- Visually inspect for rust.

Note: Anti-rust cover removal is not required on North American produced models.

#### **F02 REMOVE FRONT SPRING SPACER\***

#### **F03 Install rubber body plugs\***

- Install the two rubber plugs provided glove box into rear torque box holes.

#### **F04 Inspect for fuel, oil, coolant, or other fuel leaks**

- Visually inspect for coolant, fuel, oil (engine, transmission, rear axle) and other fluid leaks.

#### **F05 Inspect transmission/transaxle/differential lubricant levels**

#### **F06 Install front spoiler, mudguards and tail-pipe diffusers as required\***

- MA model is shipped with the spoiler removed to avoid shipping damage. Installation labor is included in PDS time.

### **G. FUNCTIONAL OPERATIONS**

Lower vehicle and assure that hood, trunk lid, and other doors are closed. Sit in driver's position and perform the following:

### **INSPECTION**

#### **G01 Check warning lights and gauges**

- Inspect for proper operation.

#### **G02 Check headlight operation and aim**

- Same as above.

#### **G03 Check turn signals, emergency flasher, and horn**

- Same as above.

\*Inspect or install when equipped/required

## 1991 PRE-DELIVERY SERVICE (Cont'd)

G04 Check parking, tail, license, sidemarker and instrument lights

### INSPECTION

- Same as above.

G05 Check brake and backup lights

- Same as above.

G06 Check dome, courtesy, map, and sunvisor lights\*

- Same as above.

G07 Check wipers, washers, and headlamp washers\*

- Same as above.

G08 Check rear defogger and cigar lighter

- Same as above.

G09 Check sunroof/convertible top (open/close)\*

- If the speed sensor is operating properly, the convertible top will not operate while the car is moving.

G10 Check audio system and set the clock

G11 Check inside/outside rearview mirror operation/adjustment

- Inspect for proper operation.

- Same as above.

G12 Check window operation

G13 Check seats and seat belt operation including automatic seat belt system\*

- For Supra and Convertible models, pass shoulder belt through seat belt hanger and inspect hanger for normal operation and latching.
- For AE and EL models, inspect and assure that seat belt shoulder tabs are inserted into the shoulder anchor buckles at both front door frames. Also, make sure the belts are not twisted.

Start engine and prepare for road test.

\*Inspect or install when equipped/required

## 1991 PRE-DELIVERY SERVICE (Cont'd)

### H. ROAD TEST

### INSPECTION

- |   |  |
|---|--|
| <p>H01 Check cold engine operation</p> <p>H02 Check engine operation during warm up</p> | <ul style="list-style-type: none"> <li>● Check that the engine operates smoothly during warm-up; including idle condition, fast idle operation, unusual noise, engine vibration, rough idle, etc.</li> </ul>   |
| <p>H03 Check engine at normal operating temperature</p>                                 | <ul style="list-style-type: none"> <li>● Check engine performance over a broad range of driving conditions including:             <ul style="list-style-type: none"> <li>– Idle quality, acceleration, cruise and deceleration.</li> <li>– Ensure that engine performance is normal, smooth and responsive.</li> </ul> </li> </ul>   |
| <p>H04 Check clutch and transmission operation</p>                                      | <ul style="list-style-type: none"> <li>● Clutch:             <ul style="list-style-type: none"> <li>– Check clutch engagement, disengagement, chatter noise.</li> </ul>             Manual Transmission:             <ul style="list-style-type: none"> <li>– Check shift lever/linkage operation, noise, etc.</li> </ul>             Automatic Transmission:             <ul style="list-style-type: none"> <li>– Check shifting operation in each range and neutral start switch.</li> <li>– Check shift lock system.</li> </ul> </li> </ul> |
| <p>H05 Check brake and parking brake operation</p>                                      | <ul style="list-style-type: none"> <li>● Check brake function, noise, parking brake indicator light function.</li> </ul>   |
| <p>H06 Check steering operation and off-center</p>                                      | <ul style="list-style-type: none"> <li>● Check for steering wheel off-center and turning operation.</li> <li>● Check for abnormal noise from suspension.</li> </ul>  |

\*Inspect or install when equipped/required

## 1991 PRE-DELIVERY SERVICE (Cont'd)

- |      |   |  |
|------|---|--|
| H07  | Inspect for any abnormal noise and vibration                      | ● Check exhaust system for leaks.  |
| H08  | Inspect for squeaks and rattles                                   | ● Inspect for abnormal noises from body or interior.                             |
| H09  | Check heater and A/C operation*                                   | ● Check for proper operation.  |
| H-10 | Check cruise control operation*                                   | ● Check cruise control setting, acceleration, deceleration and cancel functions. |
| H-11 | Check brake and clutch pedal height, freeplay, and reserve stroke |  |

### **I. FINAL INSPECTION**

- |     |  |   |
|-----|--|---|
| I01 | Remove interior protective covers, remove unnecessary labels, tags, stickers, etc.   | ● Remove plastic covers from side panels, seats, head-restraints and sunvisors as required.   |
| I02 | Install in glove compartment: Manual, Owner's Guide, Tire Warranty, Audio System Guide, Owner's Manual Supplement for Convertible Models | <ul style="list-style-type: none"> <li>● Make sure that Owner's Manual, Owner's Guide, Tire Warranty, Radio/Audio system guide, etc. are placed in the appropriate location.</li> <li>● Include CONVERTIBLE OWNER'S MANUAL SUPPLEMENT as required.</li> </ul> |
| I03 | Clean and wash vehicle   | ● Thoroughly clean interior and exterior to provide the best vehicle quality possible to customers.   |
| I04 | Complete Toyota New Vehicle Delivery Check Sheet and sign cover page.  |   |

\*Inspect or install when equipped/required

## 1991 PRE-DELIVERY SERVICE (Cont'd)

### ORDERING INFORMATION FOR PDS FORMS:

- Reordering information is printed on the bottom right corner of the first page of the PDS form.
- Additional PDS forms can be ordered through the NON-PARTS ordering system. When ordering, keep in mind that forms (00408-02011) come in packages of 100 forms each. For large volume dealers, Toyota accepts a maximum of 30 packages (1500 forms per order) for additional supply.

### WARRANTY POLICY:

If additional repairs or adjustments are noted during the pre-delivery service, required services should be performed under warranty. Reimbursement should be requested via regular warranty channels.

The 1991 Warranty Policy and Procedures Manual requires that you maintain the original copy of completed PDS forms in the customer file. If you cannot produce a completed form for each retailed vehicle, upon TMS and/or Region/Distributor audit, the PDS payment amount will be subject to debit.

An additional repair order completed in conjunction with normal PDS must have time punch flags for service. If multiple repairs are performed, separate time flags must be punched for each repair.

### **1991 FLAT RATE TIME (HR)**

#### Passenger Cars

MODEL	EL	AE	AT	(1) ST	SW	SV	VV	(2) MA	MX
FLAT RATE HRS.	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	0.9

#### Commercial Models

MODEL	AC	(3) RN	(3) VN	FJ
FLAT RATE HRS.	0.9	0.9	0.9	0.9

- (1) Convertible models: Add 0.2 hour
- (2) MA time includes spoiler installation
- (3) Including 4WD and 4Runner models

**NOTE:** The ST, AE, AC and SV ALL-TRAC flat rate times are the same as that of standard models.  
North American production model flat rates are the same as corresponding Japan production models.

## 1991 PRE-DELIVERY SERVICE (Cont'd)

<u>MODEL</u>	<u>ENGINE</u>	<u>EMISSION</u>	<u>TRANS.</u>	<u>IDLE R.P.M.</u>	<u>VALVE CLEARANCE</u>		<u>CYLINDER HEAD BOLT TORQUE</u>
					<u>INTAKE</u>	<u>EXHAUST</u>	
							<u>ENGINE COLD</u>
EL	3E-E	CALIF.	A/TM	800	0.20 mm (.008")	0.20 mm (.008")	1st: 300kg-cm (22 ft-lb) 2nd: +500kg-cm (36 ft-lb) 3rd: +90o (1/4 turn)
AE	4A-FE	FED.	ALL	700	<u>ENGINE COLD</u> 0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	610 kg-cm (44 ft-lb)
AE	4A-FE	CALIF.	ALL	800	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	610 kg-cm (44 ft-lb)
AE	4A-FE	ALL	ALL	800	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	610 kg-cm (44 ft-lb)
AE	4A-GE	ALL	ALL	800	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	1st: 500kg-cm (22 ft-lb) 2nd: +90o (1/4 turn) 3rd: +90o (1/4 turn) 610 kg-cm (44 ft-lb)
AT	4A-FE	ALL	ALL	800	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	1st: 500kg-cm (22 ft-lb) 2nd: +90o (1/4 turn)
SV	3S-FE	ALL	ALL	---	0.19-0.29 mm (.007-.011")	0.28-0.38 mm (.011-.015")	1st: 500kg-cm (36 ft-lb) 2nd: +90o (1/4 turn)
ST	5S-FE	ALL	ALL	---	0.19-0.29 mm (.007-.011")	0.28-0.38 mm (.011-.015")	1st: 500kg-cm (36 ft-lb) 2nd: +90o (1/4 turn)
ST	3S-GTE	ALL	M/TM	---	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	1st: 500kg-cm (36 ft-lb) 2nd: +90o (1/4 turn)
VV	2V-FE	ALL	ALL	---	0.13-0.23 mm (.005-.009")	0.27-0.37 mm (.011-.015")	1st: 350kg-cm (25 ft-lb) 2nd: +90o (1/4 turn) 3rd: +90o (1/4 turn)
MA	7M-GTE	ALL	ALL	---	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	(For 12-sided bolt head) 185 kg-cm (13 ft-lb)
MA	7M-GE	ALL	ALL	---	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	(For 8 mm hexagon bolt) 800 kg-cm (58 ft-lb)
MX	7M-GE	ALL	ALL	---	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	800 kg-cm (58 ft-lb)
AC	2TZ-FE	ALL	ALL	---	0.15-0.25 mm (.006-.010")	0.25-0.35 mm (.010-.014")	1st: 400kg-cm (29 ft-lb) 2nd: +90o (1/4 turn) 3rd: +90o (1/4 turn)
VN	3VZ-E	ALL	ALL	800	0.18-0.28 mm (.007-.011")	0.22-0.32 mm (.009-.013")	1st: 450 kg-cm (33 ft-lb) 2nd: +90o (1/4 turn) 3rd: +90o (1/4 turn)
RN	22R-E	ALL	ALL	750*	<u>ENGINE HOT</u> 0.20 mm (.008")	0.30 mm (.012")	800kg-cm (58 ft-lb)
FJ	3F-E	ALL	ALL	---	0.20 mm (.008")	0.35 mm (.014")	1250 kg-cm (90 ft-lb)

\* 850 rpm for 4X4 Truck with automatic transmission.