

TOYOTA

SERVICE BULLETIN

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

VOLUME

9

REFERENCE	PRODUCT GENERAL INFORMATION
NUMBER	020
DATE	08-19-88
MODEL	1989 MODELS

Page 1 of 13

TITLE 1989 NEW CAR PRE-DELIVERY SERVICE

NEW PDS FORM NON-PARTS #(00408-02009) AND NEW REQUIREMENTS

- We are introducing a new PDS form for 1989 models.
- Since both the condition of the vehicle at the time of delivery and the way it's delivered greatly influence customer satisfaction, proper use of the PDS form will help create a positive image for your dealership.

FIRST PAGE

- The first page of the two-part form remains substantially unchanged from the previous form with the exception of:
 - Printed date
 - M/N 00408-02009 for 1989 model form number
- After completing page two of the form, the seven pre-delivery preparation boxes on page one should be checked off and both the technician and the Service Manager **must** sign the form and print their names on the lines indicated for this purpose.

SECOND PAGE

- The inspection procedures on the second page of the PDS Form have only a minor change for 1989 models.
- The only change on this page is the addition of an asterisk (*) to E01 because U.S. produced Toyota models will not be equipped with anti-rust covers, therefore the removal of the covers and labels is not required.
- Perform and check off every inspection item on the second page of the form, including the road test and final inspection. Indicate any need to make adjustments, additions, repairs, or replacements to the specific check item in the space to the right of the boxes entitled "Explanation."

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

SECOND PAGE (CONT'D)

- When the PDS is performed by a qualified technician, the correct box must be checked off to indicate one of the following:

Box 1: OK - The indicated item(s) checked OK and no additional operation was required.

Box 2: Adjust/Add - A minor correction was performed or an addition such as fluid was required.

Box 3: Repair/Replace - A corrective operation was necessary, requiring a repair and/or replacement.

Explanation: If an adjustment, addition, repair or replacement was required, briefly explain

what was done on the line to the right of the boxes checked.

- NOTE: The items marked with an asterisk -* indicate optional equipment that may or may not be on some models.

COMPLETED PDS FORM

- The salesperson should then go over the form with the customer, informing him or her of the pre-delivery service performed. Finally, the salesperson and the customer should both sign the form.

NOTE: The salesperson should also make sure that the Dealer or General Manager has signed the form.

- The first or top page of the completed and signed form should be given to the customer. The second page must be kept in the dealer file.

- This process shows your customers that your entire dealership staff wants them to be fully satisfied. It demonstrates a collective effort to treat customers with an extra special touch
– **THE TOYOTA TOUCH!**

USE OF 1989 FORMS ONLY

- Only the new 1989 PDS form Non-Parts #00408-02009 should be used for 1989 models.
- However, due to the small number of changes involved, the previous 1988 PDFS forms (00408-02008) may be used on 1989 models until you receive your supply of the new 1989 forms.

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

ORDERING INFORMATION

- Reordering information is printed on the bottom right corner of the first page of the PDS form.
- Additional forms can be ordered through the NON-PARTS ordering system. When ordering, keep in mind that forms (00408-02009) come in packages of 100 forms each. For large volume dealers, Toyota accepts a maximum of 20 packages (2000 forms) for additional supply per order.

WARRANTY POLICY

- If additional repairs or adjustments are noted during the pre-delivery service, the required service should be performed under warranty and reimbursement should be requested via regular warranty claim channels.
- The 1989 Warranty Policy and Procedure 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 vehicle retailed, upon TMS and/or Region/Distributor audit, the PDS payment amount will be subject to debit.

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

1989 FLAT RATE TIME (HR)

Passenger Cars

AREA	MODEL	EL	AE	(3) AW	(4) ST	SV	VZV	(5) MA	MX
General Area (1)		0.9	0.9	1.0	0.9	1.0	1.0	1.0	0.9
High Altitude Areas (2)		1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.0

Commercial Models

AREA	MODEL	(6) YR	(7) RN	FJ	(8) VZN
General Area (1)		0.9	0.9	0.9	0.9
High Altitude Areas (2)		1.5	1.0	0.9	1.0

- (1) General Area – Vehicles operating below 4,000 feet
- (2) High Altitude Areas – Vehicles operating above 4,000 feet in. specified counties (see attached listed)

- (3) AW Time Includes Spoiler and Diffuser Installation
- (4) Convertible Models – Add 0.2 hour
- (5) MA Time Includes Spoiler Installation
- (6) Including Both Van and Cargo Van Models
- (7) Including 4WD and 4Runner Models
- (8) Including 4WD and 4Runner Models

NOTE: The ST, AE and SV ALL-TRAC flat rate times are the same as that of standard models.

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

A. VEHICLE EXTERIOR

- A01 Inspect Paint Finish for Rust, Dents, Scratches, etc.
- A02 Inspect Exterior Body Parts for Installation, Damage, Rust, Alignment, etc.
- A03 Hood, Deck Lid, Back Door, Fuel Door Operation
- A04 Door Lock System and Door Lamp Operation

INSPECTION

- Inspect for any abnormal condition, operation, loose or missing parts.

B. VEHICLE INTERIOR

- B01 Inspect All Interior Parts for Dirt, Damage, Fit Alignment, etc.

INSPECTION

- Inspect for any abnormal condition, operation, loose or missing parts.

- B02 Seats, Seat Belt Operation

- For Supra and Convertible models, pass the shoulder belt through the seat belt hanger and inspect for normal operation and latching.

- B03 Window Regulator Operation
- B04 Inspect Carpet Fit/Alignment

C. UNDERHOOD

- C01 Engine Oil Level Check
- C02 Brake & Clutch Fluid Level Check*
- C03 Power Steering Fluid Level Check*
- C04 Coolant and Washer Fluid Level Check
- C05 Battery Terminal Tightness
- C06 Wiring and Hose Condition

INSPECTION

- Inspect dipsticks or visually inspect see-through reservoirs.
- Inspect connections and condition as required.

* Inspect or install when equipped

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

UNDERHOOD – ENGINE OPERATING

- Engine Operations
- C07 Engine Cold
- C08 During/After Warm-up

NOTE: VEHICLE EMISSION CONTROL INFORMATION LABEL

2) IDLE MIXTURE ADJUSTMENTS

- C09 High altitude inspection and/or adjustments.* High altitude areas (Federally designated high altitude counties are listed on page 12).

* Inspect or Install when equipped

INSPECTION

- Check engine operation while cold and after warm-up. (Check idle rpm, fast idle rpm, noise, engine vibration and rough idle, etc.) If adjustments are required, always refer to VEHICLE EMISSION CONTROL INFORMATION LABEL AND/OR ENGINE REPAIR MANUAL.
 - The Emission Control Information Label is always located on the underside of the hood, except Camry, Van and FJ models.
 - The label for Camry is placed on the cowl panel.
 - The label for Van is placed on the floor panel under the driver’s seat.
 - The label for FJ is placed on the cowl panel.
 - The information on the label will vary with each model and engine specification.
 - Do not attempt to adjust idle setting, as it is preset and sealed at the factory.
- Inspect the following items after warm-up using a tachometer and timing light according to the VEHICLE EMISSION CONTROL LABEL.
- Ignition Timing
 - Idle RPM
 - Fast Idle RPM
 - Throttle Positioner RPM

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

UNDERHOOD – ENGINE OPERATING (CONT'D) INSPECTION

- | | |
|--|--|
| <p>C10 Inspect for fuel, oil, coolant, or other fluid leaks.</p> <p>C11 Inspect automatic transmission fluid level.*</p> | <ul style="list-style-type: none"> • Check fluid level and look for fuel, oil, coolant or other fluid leaks under the hood. • Inspect ATF levels on the dipstick with engine idling and transmission at operating temperature. |
|--|--|

D. LUGGAGE COMPARTMENT INSPECTION

- | | |
|--|---|
| <p>D01 Light Operation</p> <p>D02 Trim Appearance/Trunk Mat Fit</p> <p>D03 Spare Tire Pressure Check</p> | <ul style="list-style-type: none"> • Visually inspect for any abnormal conditions. |
|--|---|

E. UNDER VEHICLE (ON HOIST) INSPECTION

<p>E01 <u>Remove Disc Brake Anti-Rust Covers*</u></p>	<ul style="list-style-type: none"> • Remove brake disc anti-rust and check for rust.
<p>NOTE: U.S. produced models do not have anti-rust covers, therefore this operation is not required for these vehicles.</p>	

- | | |
|---|---|
| <p>E02 Inspect for Fuel, Oil, Coolant, or Other Fluid Leaks</p> <p>E03 Install Rubber Body Plugs*</p> <p>E04 Check Wheel Lug Nut Torque</p> | <ul style="list-style-type: none"> • Visually inspect for coolant, fuel, oil (engine, transmission, rear axle) and other fluid leaks. • Install the 2 rubber plugs provided in the glove box into the torque box hole. • Torque Specification – All Models |
|---|---|

900 to 1200 kg-cm
(66 to 86 ft-lb)
(88 to 118 Nm)

- E05 Wheel Covers/Caps Installation
- E06 Inspect Tires for Defects or Damage/Adjust Air Pressure

* Inspect or install when equipped

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

RECOMMENDED TIRE AIR PRESSURE

Tire pressure must be checked "cold," meaning the car must not have been driven for at least three hours.

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 the tire information label located on the vehicle.

NOTE:

- Compact spare -- 60 psi (4.2 kg/cm²)
- Tire sidewall "Maximum" cold tire inflation pressure should not be used for normal driving conditions.

E07 Inspect Transmission/Transaxle/
Differential Lubricant Levels*

E08 Install Front Spoiler,
Mudguards and/or Tail-
pipe Diffusers as
Required*

- AW and MA models are shipped with the spoiler removed to avoid shipping damage. Installation labor is included in the PDS time.
- AW with supercharged engine model is shipped with tailpipe diffusers removed to avoid shipping damage. Installation labor is included in the PDS time.

* Inspect or install when equipped

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

F. ROAD TEST

ELECTRICAL SYSTEM/ACCESSORY
OPERATION

INSPECTION

- F01 Headlight Operation/
Headlight Aim
- F02 Instrument, Dome, Courtesy
Map, Sunviser Lights*
- F03 Warning Lights and Gauges
- F04 Parking, Tail, License,
Sidemarker and Instrument Lights
- F05 Brake and Backup Lights
- F06 Turn Signal, Emergency
Flashers, and Horn
- F07 Heater and A/C Operation*
- F08 Rear Defogger and Cigar
Lighter*
- F09 Wipers, Washers, Head Lamp
Washers*
- F10 Sunroof/Convertible Top
(Open/Close)*

- Inspect for proper operation.
- The convertible top will not operate while the car is moving if the speed sensor is operating properly.

F11 Audio System and Clock*

- The fuse for the radio circuit is removed at the factory to reduce current draw during transit.

F12 Outside/Inside Rear View
Mirror Operation

VEHICLE OPERATION

- F13 Cruise Control Operation*
- F14 Check Brake and Clutch Pedal
Height, Freeplay, and Reserve
Stroke

- Check cruise control setting, accel and decel functions.

* Inspect or install when equipped

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

F. ROAD TEST (CONT'D)

VEHICLE OPERATION (CONT'D)

INSPECTION

F15 Engine Operation

- Check engine performance over a broad range of driving conditions including:
 - Idle quality, acceleration, cruise and deceleration.
 - Ensure that engine performance is normal, smooth and responsive.

F16 Clutch and Transmission Operation

- Clutch:
Inspect clutch pedal free-play, height and reserve stroke after disengagement. Check clutch engagement, disengagement, chatter noise.

- Transmission:
Manual transmission:
 - Check shift level operation, noise, etc.
- Automatic transmission:
 - Check shifting operation in each range, and neutral start switch.

F17 Brake and Parking Brake Function

- Check brake operation and inspect brake pedal for free play, height and reserve height when pressed.

- Check brake function, noise parking brake indicator light function.

F18 Steering Off-Center and Operation

- Check for steering wheel off-center and turning operation.
- Check for abnormal noise from suspension.

F19 Inspect for any Abnormal Noise or Vibration

- Check Exhaust System for leaks.

F20 Inspect for Squeaks and Rattles.

- Inspect for abnormal noises from the body of interior.

* Inspect or install when equipped

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

G. FINAL INSPECTION

INSPECTION

G01 Remove Interior Protective Covers/Remove Unnecessary Labels, Tags, Stickers, etc.

- Remove plastic covers from side panels, seats, head-restraint and sunvisors as required.

- Also remove caution labels and other tags, labels as required.

G02 Install in Glove Compartment Owner's Manual/ Owner's Guide/Tire Warranty/Audio System Guide/ Convertible Owner's Manual supplement**

- Make sure that Owner's Manual, Owner's Guide, Tire Warranty, Radio/Audio system guide, etc., are placed in the appropriate location.
- Include CONVERTIBLE OWNER'S MANUAL SUPPLEMENT as required.

G03 Spare Wheel, Jack and Tool Installation

G04 Wash and Clean Vehicle

- Thoroughly clean the vehicles interior and exterior to present the best possible image.

* Inspect or install when equipped

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

The following counties have been designated High Altitude by the Federal EPA. If a vehicle is to be used principally without this area, follow the high altitude (above 4,000 ft) vehicle inspection instructions of this bulletin.

Start of ColoradoState of New Mexico

Adams	Kit Carson	Bernalillo	Mora
Alamosa	Lake	Cantron	Rio Arriba
Arapahoe	La Plata	Colfax	Roosevelt
Archuleta	Larimar	Curry	Sandoval
Boulder	Las Animas	De Baca	San Juan
Chaffee	Lincoln	Grant	San Miguel
Cheyenne	Mesa	Guadalupe	Santa Fe
Clear Creek	Mineral	Harding	Sierra
Conejos	Moffat	Hidalgo	Socorro
Costilla	Montezuma	Lincoln	Taos
Crowley	Montrose	Los Alamos	Torrance
Custer	Morgan	Luna	Union
Delta	Otero	McKinley	Valancia
Denver	Ouray	Otero	
Dolores	Park		

State of Utah

Douglas	Pitkin		
Eagle	Pueblo		
Elbert	Rio Blanco	Beaver	Morgan
El Paso	Rio Grande	Box Elder	Piute
Fremont	Routt	Cache	Rich
Garfield	Saguache	Carbon	Salt Lake
Gilpin	San Juan	Daggett	San Juan
Grand	San Miguel	Davis	Sanpete
Gunnison	Summit	Duchesne	Savier
Hindsdale	Teller	Emery	Summit
Huerfano	Washington	Garfield	Tooele
Jackson	Weld	Grand	Uintah
Jefferson		Iron	Utah

State of Nevada

Carson City	Lyon		
Douglas	Mineral		
Elko	Nye		
Esmeralda	Pershing		
Eureka	Storey		
Humboldt	Washoe		
Lander	White Pine		
Lincoln			

Juab	Wasatch
Kane	Wayne
Millard	Weber

TECHNICAL ASSURANCE DEPARTMENT

* Inspect or install when equipped

1989 NEW CAR PRE-DELIVERY SERVICE (CONT'D)

MODEL	ENGINE	EMISSION	T/M	IDLE R.P.M.	F/IDLE R.P.M.	T/P R.P.M.	VALVE CLEARANCE		CYLINDER HEAD BOLTS
							INTAKE	EXHAUST	
EL	3E		M/T A/T	700 900	3000 2800	1100 1100	ENGINE HOT		ENGINE COLD 1st:300kg-cm(22 ft-lb) 2nd:+500kg-cm(36 ft-lb) 3rd:+90° (1/4 turn)
							0.20 mm(.008")	0.20 mm(.008")	
							0.20 mm(.008")	0.20 mm(.008")	
AE	4A-F	ALL	M/T A/T	650 750	3000 3000	900 900	ENGINE COLD		610 kg-cm (44 ft-lb) 610 kg-cm (44 ft-lb)
							0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	
AE(4WD)	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 & AW	4A-GE	ALL	ALL	800	-----	-----	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	1st:300kg-cm (22 ft-lb) 2nd:+90° (1/4 turn) 3rd:+90° (1/4 turn)
AW	4A-GZE	ALL	ALL	-----	-----	-----	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	1st:300kg-cm (22 ft-lb) 2nd:+90° (1/4 turn) 3rd:+90° (1/4 turn)
ST & SV	3S-FE	ALL	ALL	-----	-----	-----	0.19-0.29 mm (.007-.011")	0.28-0.38 mm (.011-.015")	550 kg-cm (40 ft-lb)
ST	3S-GE	ALL	ALL	750	-----	-----	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	1st:550kg-cm (40 ft-lb) 2nd:+90° (1/4 turn)
ST(4WD)	3S-GTE	ALL	ALL	-----	-----	-----	0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	1st:350kg-cm (25 ft-lb) 2nd:+90° (1/4 turn) 3rd:+90° (1/4 turn)
VZV	2VZ-FE	ALL	ALL	-----	-----	-----	0.13-0.23 mm (.005-.009")	0.27-0.37 mm (.011-.015")	185 kg-cm (13 ft-lb) (for 8 mm hexagon bolt) 800 kg-cm (58 ft-lb)
MA	7M-GTE 7M-GE 7M-GE	ALL	ALL	-----	-----	-----	ENGINE HOT		900 kg-cm (65 ft-lb) (for 14 mm bolt head) 195 kg-cm (14 ft-lb) (for 12 mm bolt head)
							0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	
							0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	
YR	4Y-E	ALL	M/T A/T	700 750	-----	-----	-----	800 kg-cm (58 ft-lb)	
VZN	3VZ-E	ALL	ALL	800	-----	-----	0.18-0.28 mm (.007-.011")	0.22-0.32 mm (.009-.013")	1st:450kg-cm (33 ft-lb) 2nd:+90° (1/4 turn) 3rd:+90° (1/4 turn) 380 kg-cm (27 ft-lb) (for 14 mm bolts)
RN	22R 22R-E	ALL	M/T ALL	700** 750	3000*	-----	ENGINE HOT		800 kg-cm (58 ft-lb) 800 kg-cm (58 ft-lb)
							0.15-0.25 mm (.006-.010")	0.20-0.30 mm (.008-.012")	
FJ	3F-E	ALL	ALL	-----	-----	-----	0.20 mm(.008")	0.35 mm(.014")	1250 kg-cm (90 ft-lb)