GENERAL 1999 FEATURES

DESCRIPTION

The table below provides an outline of the system that is indicated in the General 1999 Features and the names of the ’99 models that have adopted this system.

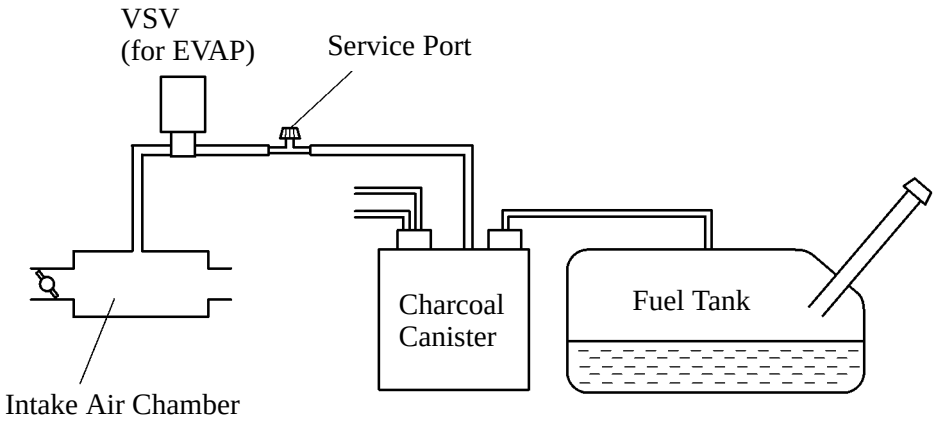
System		Outline	Model Name
Engine	Emission Control System	A service port for inspecting the evaporative emission control system has been provided between the charcoal canister and the VSV for EVAP.	All Models
Accessories	SRS Airbag	A front airbag sensor that detects the impact of a frontal collision has been newly added to realize a 3-sensor type airbag system.	Models except Tercel and Paseo
	Seat Belt Warning System	A seat belt warning system for the front passenger has been provided to inform that the seat belt is not being worn if the front passenger is seated but is not wearing the seat belt.	Tercel*, Paseo* Camry Solara, Sienna 4Runner, Land Cruiser
Audio	AVC-LAN	The AVC-LAN (Audio Visual Communication - Local Area Network) standard has been adopted by the audio system. Thus, the system’s expandability has been improved by facilitating the interchange or the addition of audio system units.	All Models*

*: This feature has been adopted starting on the ’98 model.

ENGINE

■EMISSION CONTROL SYSTEM

A service port for inspecting the evaporative emission control system has been provided between the charcoal canister and the VSV for EVAP.
The evaporative emission control system can be inspected by connecting a pressure gauge to the service port and performing a vacuum or a pressure test.
Refer to the repair manual for the respective model for details on the check method.



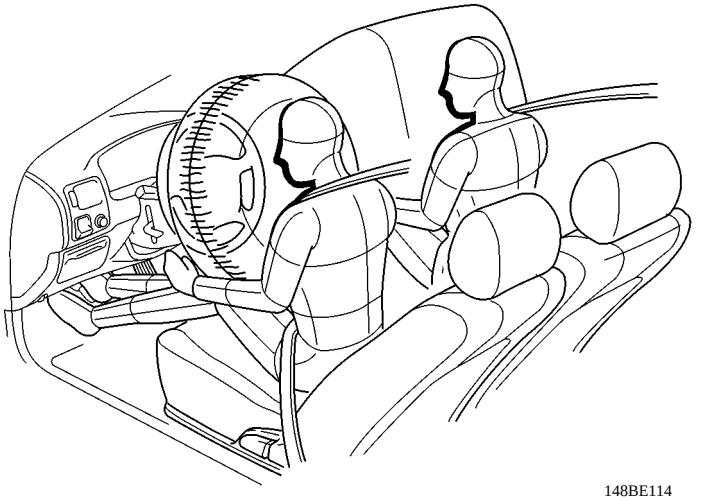
159EG07

ACCESSORIES

■ SRS AIRBAG

1. General

- The electrically sensing type SRS (Supplemental Restraint System) airbag is designed to help lessen the shock to the driver and front passenger as a supplement to the seat belt.
- A 3-sensor type airbag system detects the deceleration during collision by the front airbag sensors and the airbag sensor that is enclosed in the airbag sensor assembly.

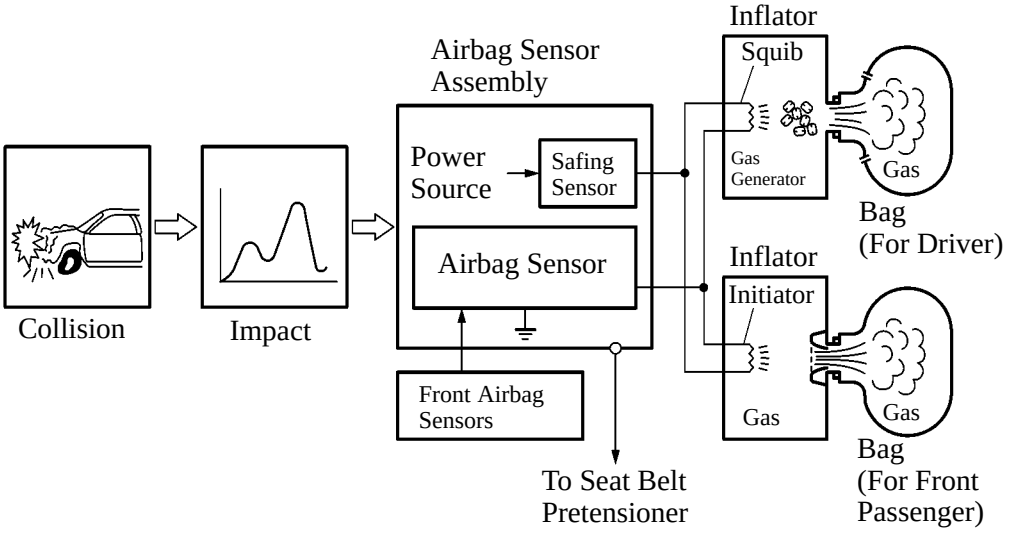


148BE114

Corolla

▶ System Diagram °

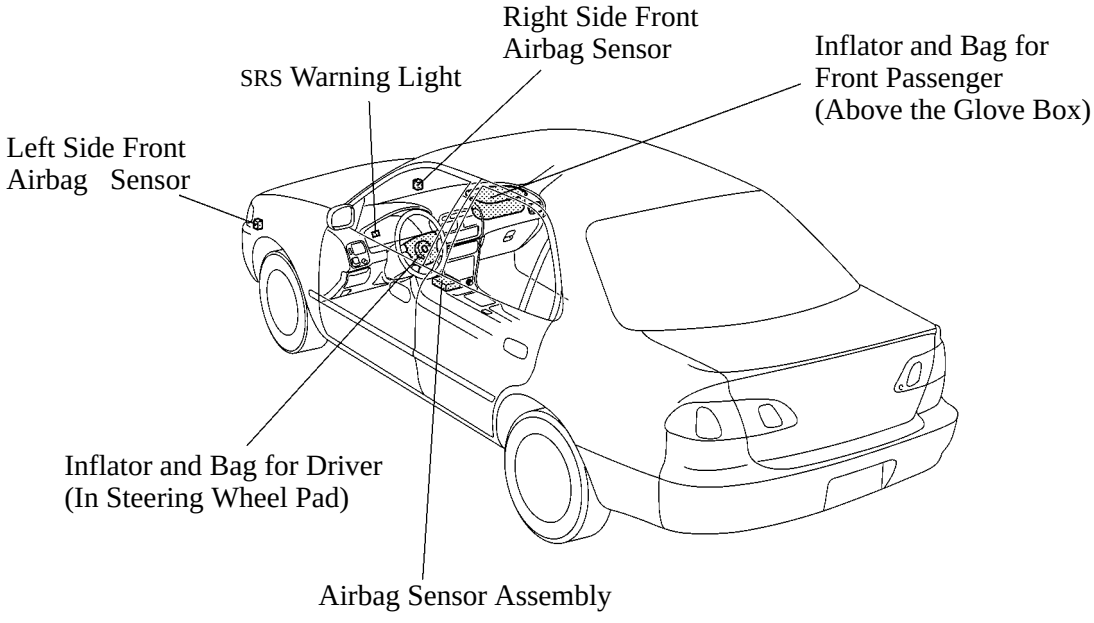
The activation processes of the SRS airbag is as illustrated below.



160GE07

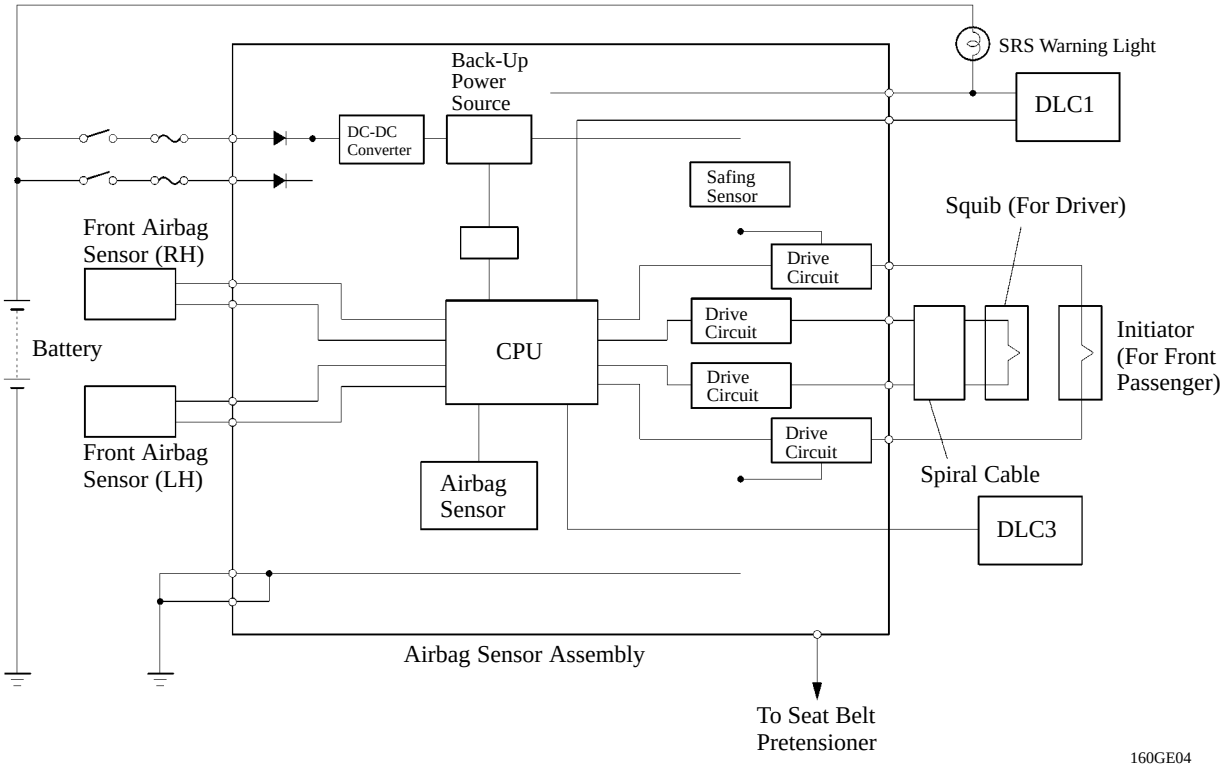
2. Layout of Components

The major function parts of the airbag systems are shown below.



Corolla

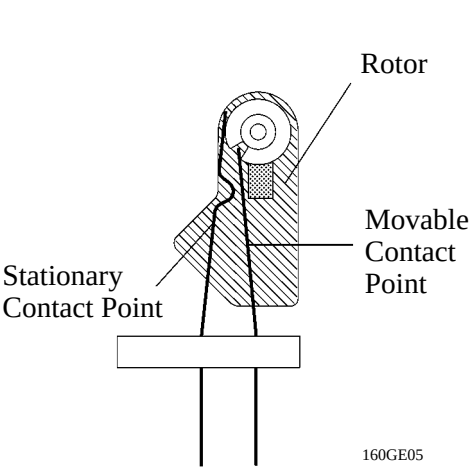
3. Wiring DIagram



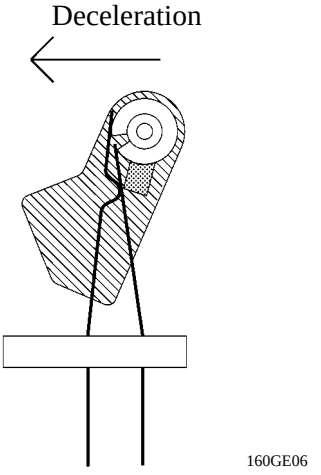
4. Construction and Operation

Front Airbag Sensor

The front airbag sensor consists of rotor, movable contact point and a stationary contact point.
The rotor is fixed by the initial set load of the movable contact point. At the same time, the movable contact point restrains the movement of the rotor which is generated during vehicle deceleration, thus preventing the unintended activation of the system.
If a sudden deceleration that exceeds a predetermined value occurs due to a collision of the vehicle, the rotor will rotate. The rotational movement of the rotor pushes the movable contact point and causes the movable and stationary contact points to come into contact. As a result, an ON signal is generated and transmitted to the airbag sensor assembly.



Normal Condition

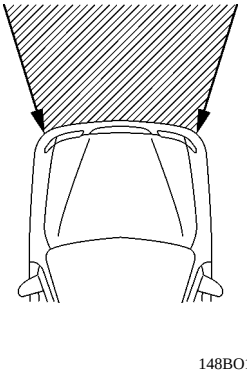


Activated Condition

5. System Operation

Ignition Judgement and Condition

- When the vehicle collides in the hatched area (Fig. 1) and the shock is larger than a predetermined level, the airbag and the seat belt pretensioner are activated automatically. The airbag sensor is characteristically turned in such a way that can judge the need for ignition in collisions within the hatched area.
- The safing sensor is designed to be activated by a smaller deceleration rate than that of the airbag sensor. As illustrated in Fig. 2 below, ignition is operated when current flows to the squib. This happens when a safing sensor and the airbag sensor go on simultaneously.
- Airbag sensor assembly judges whether or not to inflate the airbag in accordance with ON/OFF of the front airbag sensor and the deceleration detected by the airbag sensor.



Corolla
Fig. 1

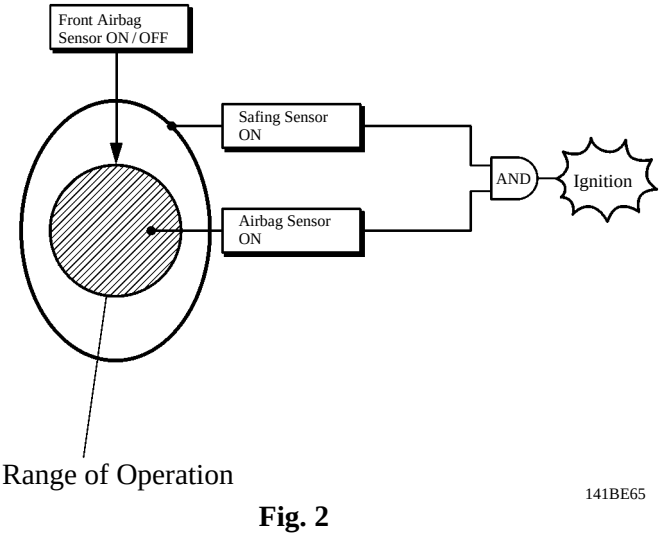


Fig. 2

■SEAT BELT WARNING SYSTEM

1. General

A seat belt warning for the front passenger has been newly provided. When the front passenger seat is occupied but its seat belt is not being worn, this function flashes a warning light to inform the front passenger that the seat belt is not being worn.

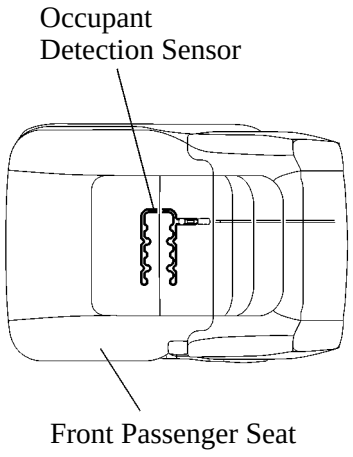
2. Seat Belt Warning for Front Passenger

Construction

The seat belt warning for the front passenger consists of the front passenger seat belt buckle/retractor switch, occupant detection sensor, seat belt warning light for the front passenger.

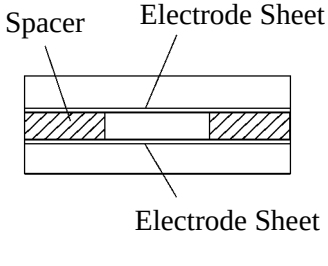
1) Belt Warning Occupant Detection Sensor

The occupant detection sensor, which is enclosed in the seat cushion of the front passenger seat, is used to detect whether or not the front passenger seat is occupied.
This sensor, which is shaped as illustrated below, consists of a construction in which two sheets of electrodes sandwich a spacer. When the occupant is seated, the electrode sheets come in contact with each other through the hole that is provided in the spacer portion, thus enabling the current to flow.
Thus, the sensor detects whether or not an occupant is seated in the front passenger seat.



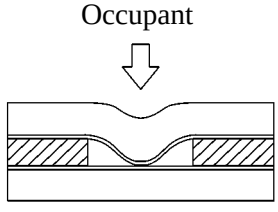
156BE18

Land Cruiser



156BE19

Sensor OFF



156BE20

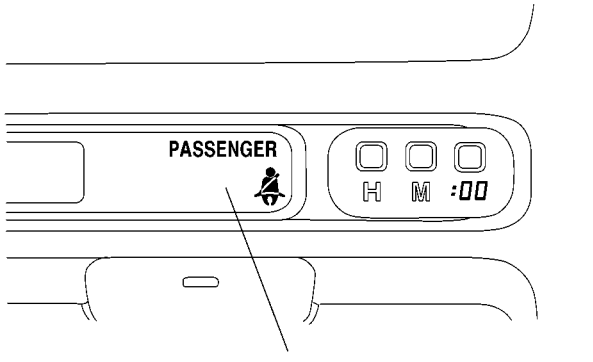
Sensor ON

2) Front Passenger Seat Belt Buckle/Retractor Switch

The front passenger seat belt buckle/retractor switch is enclosed in the seat belt buckle/retractor of the front passenger seat to detect whether or not the seat belt for the front passenger is being worn.

3) Seat Belt Warning Light for Front Passenger

The seat belt warning light for front passenger flashes to warn if the front passenger does not have the seat belt buckled.



Land Cruiser

Operation

When an occupant is seated in the front passenger seat, the occupant detection sensor activates, thus enabling the system to recognize that the occupant has seated. When the ignition switch is turned ON, a warning light flashes if the front passenger is not wearing the seat belt. The warning light continues to flash until the front passenger wears the seat belt.
If the front passenger seat is not occupied, the warning light remains extinct regardless of the condition of the seat belt.

AUDIO

■AVC-LAN

1. General

The AVC-LAN (Audio Visual Communication - Local Area Network) is a communication standard that has been established by the 6 audio manufacturers that produce audio visual units, which are mounted on Toyota's production vehicles. This standard, which ensures the mutual interchangeability of the manufacturers' units, facilitates the connection and control of those units.
The characteristics of an audio system that supports AVC-LAN are described below.

- An audio system can be created by selecting the units regardless of the audio unit's manufacturer.
- The audio system that was installed in the factory can be freely interchanged or added with commercially available audio units.
- Because this standard enables the manufacturers to develop and produce the audio unit of their specialty, a wide variety of products can be provided in the audio lineup.
- The audio units that are newly developed by the manufacturers can be added to the lineup in a timely manner.
- By pre-registering the switch operation of each unit established in the line up into the head unit, each unit can be controlled by the head unit without adding the transmitter when adding units later.

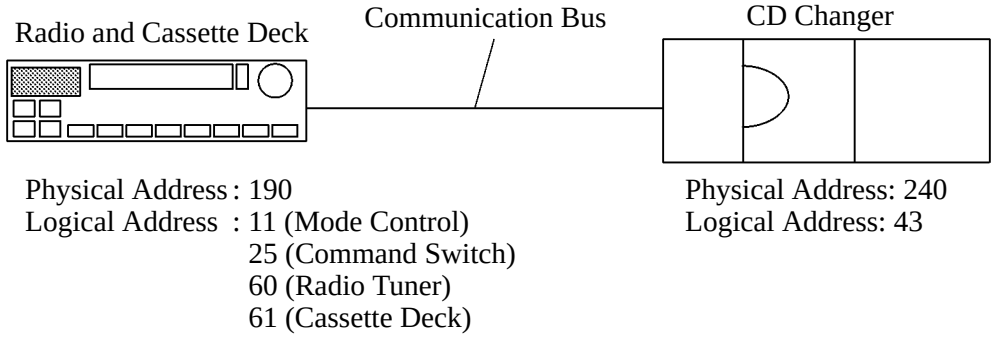
By adopting the audio system corresponded to the AVC-LAN standard, audio units can be easily added or changed with the audio system mounted originally on the vehicle as the base. Thus, the expandability of the audio system is improved.

2. Communication Outline

In the audio system that uses AVC-LAN, audio units such as a cassette deck or a CD changer are connected by a communication bus that establishes communication via serial data signals.
In this system, addresses are used to identify the units with which to establish communication. The addresses can be broadly divided into two types: the physical address that is assigned to each audio unit such as a cassette deck, CD changer, etc.; and the logical address that is assigned to the function that each unit provides, such as the radio function or the cassette function. The physical addresses are represented by 3-digit numbers and the logical addresses are represented by 2-digit numbers.
The signals that are exchanged between the units are the unit's control signal, display data, audio signal, etc., which have been rendered into serial data. The configuration of the 4 signals indicated below, which are rendered into serial data and transmitted to the each unit, has been established as a uniform AVC-LAN standard.

- Audio Signal
- Video Signal
- Display Data
- Signal Communication Software

The illustration below shows an example of an audio system configuration using AVC-LAN.



160GE01

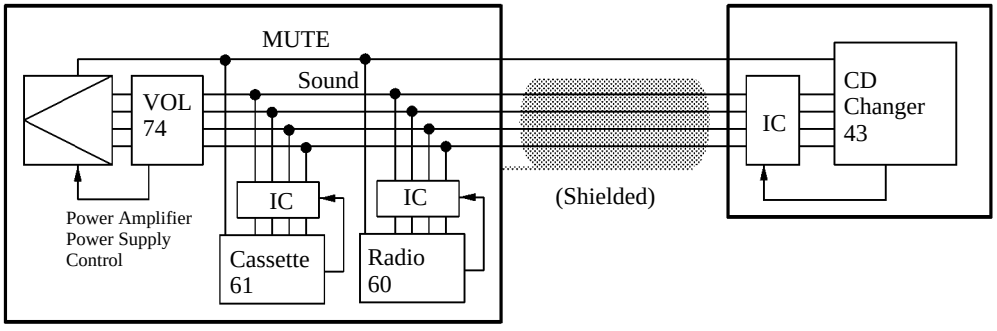
3. Operation

System Registration

An audio system that uses AVC-LAN performs a registration process to verify the audio units that comprise the system.
When the ignition switch is turned to the ACC position, the audio units that comprise the system transmit the logic address in the units, and the physical address is transmitted by the mode control portion that is integrated in the smallest audio unit (head unit). By receiving these addresses, the mode control portion verifies the units that comprise the system.
By performing this process, all functions can be controlled regardless of the combination of the units that comprise the system.

Switching the System

An audio system that uses AVC-LAN consists of audio units that are connected in parallel as described in Fig. 1. Each of the audio units has a switch to connect the unit to the communication bus.
To control the audio units in accordance with the system to be operated, the mode control portion transmits output ON and output OFF instructions. In accordance with the instruction signals transmitted by the mode control portion, the units turn their switches ON or OFF to switch the operating unit and system. Fig. 2 shows an example of a signal exchange that takes place between the mode control unit and each audio unit during the switching of the system.



160GE02

Fig. 1

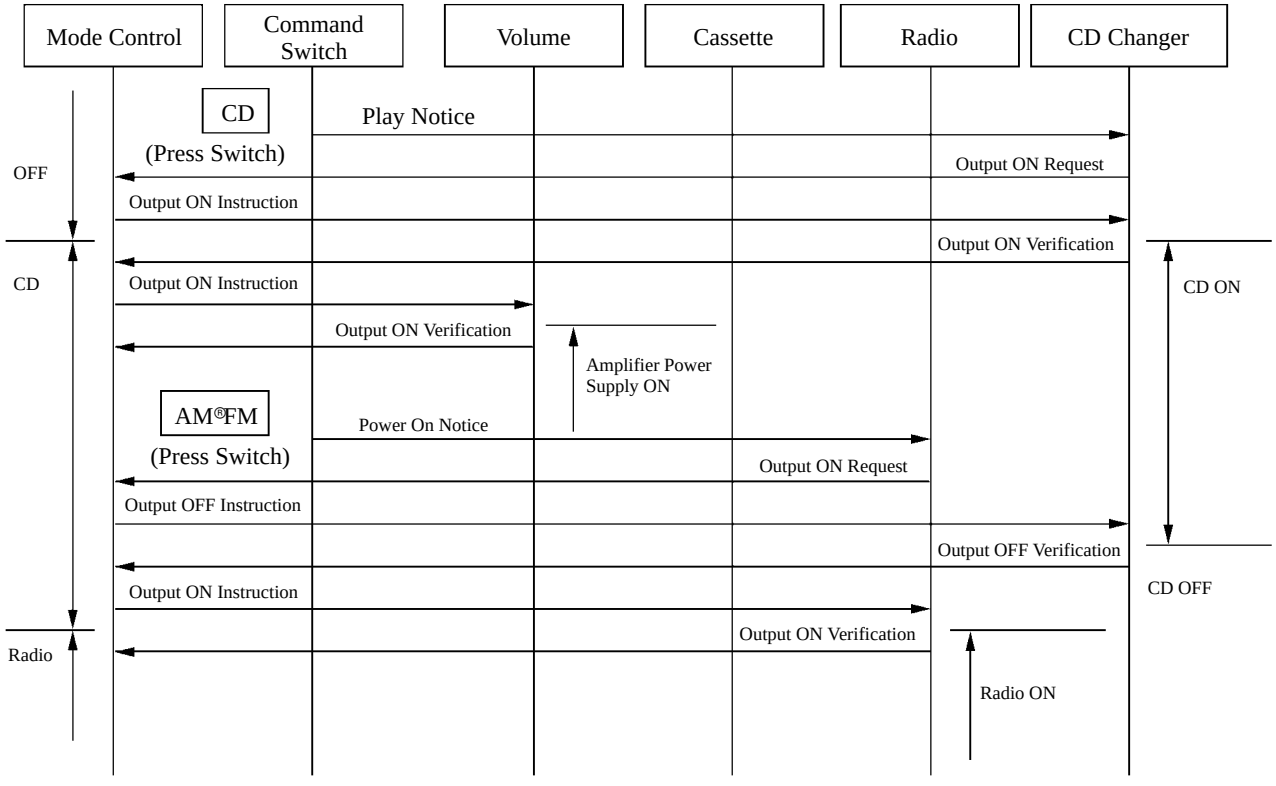


Fig. 2

160GE03

4. Diagnosis Function

A diagnostic function that comprises the following 3 functions has been adopted.

- A LAN check mode that displays the code number (physical address) of the tuner and connected equipment.
- A system check mode that displays the malfunction judgment of the tuner and connected equipment and its results.
- A diagnosis memory mode that displays the malfunction judgment of the tuner and connected equipment and its results.

For further details on diagnosis function, see the Toyota Service Bulletin (Ref. No. BE-8008).

CAMRY

OUTLINE OF NEW FEATURES

The Camry is a high-quality family sedan with advanced technology and sporty performance. The following changes are made for the 1999 model year.

1. Model Line-Up

- The following models have been added.
  SXV20L-AEMDKK, SXV20L-AEPDKK
  MCV20L-CEMNKA, MCV20L-AEPDKK
- The following models have been discontinued.
  SXV20L-CEMDKK, SXV20L-CEPDKK, SXV20L-CEMNKK, SXV20L-CEPNKK
  MCV20L-CEMDKA, MCV20L-CEPDKK, MCV20L-CEPGKK

2. Engine

- ORVR (On-board Refueling Vapor Recovery) system has been adopted on the 1MZ-FE engine models. The basic construction and operation of this system are the same as in the ’98 Camry with 5S-FE Engine.
- The direction of the rotation of the radiator cooling fan of the 1MZ-FE engine models has been reversed.
- A service port has been provided for inspecting the evaporative emission control system on all models. For details, see the General 1999 Features section.

3. Axles

The rear axle bearing specifications have been partially changed.

4. Brakes

The brake specifications have been partially changed.

5. Body

- The attachment method for the front bumper reinforcement has been changed.
- The center pillar garnish extends into the vehicle’s interior to provide its effectiveness in absorbing the energy in case the occupant’s head collides against the pillar.
- A reinforcement has been added to the rocker panel to effectively dissipate the impact energy during a frontal collision, thus minimizing the deformation of the cabin.
- The front, center and rear pillar garnishes provide an impact-absorbing structure consisting of internal ribs that dampen the impact.

6. Seat

A seat fabric has been changed on the CE grade models to improve the seat appearance.

7. Seat Belt

The shape of the tongue plate has been changed to help improve the usability of the seat belt.

8. Lighting

Daytime running light system with automatic light control sensor is provided on the models for U.S.A. as optional equipment, and as standard equipment on the models for Canada.
The basic construction and operation are the same as in the ’99 Camry Solara.

9. Air Conditioning

- An aluminum heater core has been adopted on all models.
- A quick joint has been adopted for joining the air conditioner tube.

10. SRS Airbag

A 3-sensor type airbag system has been adopted with the addition of a front airbag sensors, which senses the impact of a frontal collision. For details, see the General 1999 Features section.

11. Power Seat

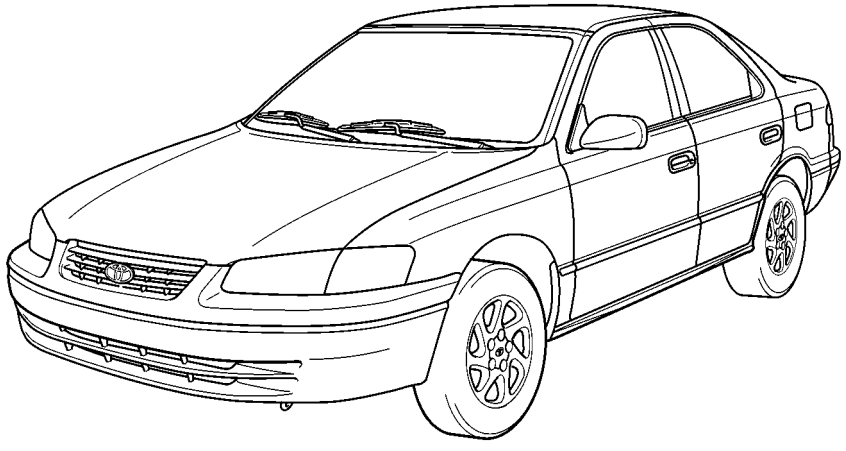
A power seat is available as an option for the driver seat on the LE grade model. Also, a power seat is available as an option for the driver and front passenger seats on the LE grade model with leather seat.

12. Audio

- An AM/FM ETR with Cassette Deck and CD Player with built-in power amplifier is available as an option on the LE grade model.
- The pole antenna, which was provided on the CE grade model, has been changed to the rear window imprinted antenna.

13. Cruise Control System

The cruise control ECU has been made more compact.



160CM05

MODEL CODE

MCV20 L – C E P G K A

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

	BASIC MODEL CODE
①	SXV20 : With 5S-FE Engine MCV20: With 1MZ-FE Engine

	STEERING WHEEL POSITION
②	L : Left-Hand Drive

	MODEL NAME
③	A : Camry (Produced by TMC*1) C : Camry (Produced by TMMK*2)

	BODY TYPE
④	E : 4-Door Sedan

	GEARSHIFT TYPE
⑤	M: 5-Speed Manual, Floor P : 4-Speed Automatic, Floor

	GRADE
⑥	D : CE N : LE G : XLE

	ENGINE SPECIFICATION
⑦	K : DOHC and SFI

	DESTINATION
⑧	A : U.S.A. K : Canada

*1: TMC (Toyota Motor Corporation)

*2: TMMK (Toyota Motor Manufacturing Kentucky, Inc.)

MODEL LINE-UP

TRANSAXLE				5-Speed Manual		4-Speed Automatic	
DESTI-NATION	ENGINE	BODY TYPE	GRADE	S51	E153	A140E	A541E*
U.S.A.	5S-FE	4-Door Sedan	CE	SXV20L-CEMDKA		SXV20L-CEPDKA	
			LE			SXV20L-A(C)EPNKA	
			XLE			SXV20L-A(C)EPGKA	
	1MZ-FE		CE		MCV20L-CEMDKA		
			LE		MCV20L-CEMNKA		MCV20L-A(C)EPNKA
			XLE				MCV20L-A(C)EPGKA
Canada	5S-FE		CE	SXV20L-CEMDKK		SXV20L-CEPDKK	
				SXV20L-AEMDKK		SXV20L-AEPDKK	
			LE	SXV20L-CEMNKK		SXV20L-CEPNKK	
						SXV20L-AEPNKK	
	1MZ-FE		CE				MCV20L-CEPDKK
							MCV20L-AEPDKK
			XLE				MCV20L-CEPGKK
							MCV20L-AEPGKK

*: Electronically Controlled Transaxle with an intelligent control system

: New

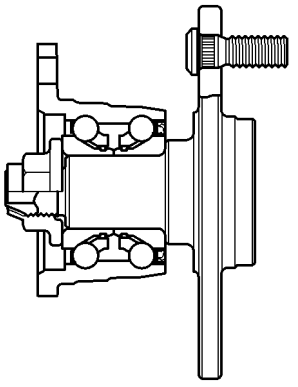
: Discontinued

5

NEW FEATURES

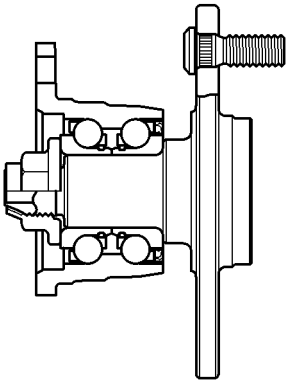
■AXLES

On models produced by Toyota Motor Corporation, the rear axle bearing specifications have been changed as indicated in the following table.



160CM02

’99 Camry



160CM03

’98 Camry

▶ **Specifications** ◦

Model / Item	’99 Camry	’98 Camry
Ball Diameter mm (in.)	10.32 (0.41)	12.7 (0.50) or 11.9 (0.47)
Number of Balls	14 x 2 or 13 x 2	11 x 2
Contact Angle degrees	40	35
PCD (Pitch Circle Diameter) of Ball Bearing mm (in.)	51.5 (2.03) or 49 (1.93)	49 (1.93)
Ball Center Distance mm (in.)	22.3 (0.88) or 22.6 (0.89)	20 (0.79) or 19.5 (0.77)

■BRAKES

The brake specifications have been partially changed as indicated in the following table.

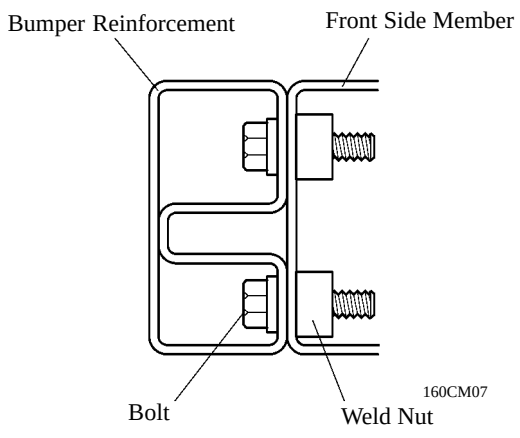
▶ **Specifications** ◦

Model / Item		’99 Camry	’98 Camry
Rear Drum Brake	Wheel Cylinder Dia. mm (in.)	20.64 (0.81)	19.05 (0.75)
Brake Control Valve	Deflection Point of Hydraulic Pressure kPa (kgf/cm^2, psi)	2452 (25, 356)	1470 (15, 213)
	Pressure Reduction Gradient	0.37	0.6

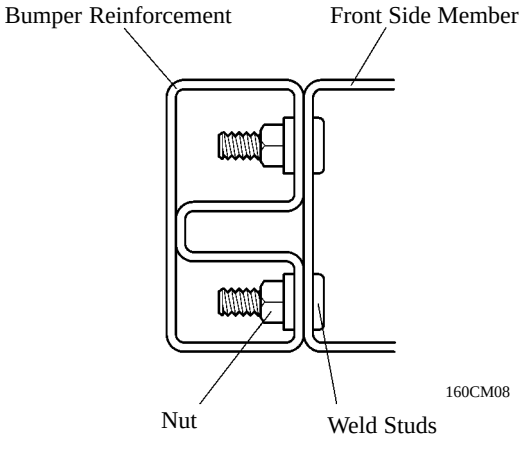
■BODY

1. Front Bumper

The attachment method of the front bumper reinforcement and the front side member has been changed.



’99 Camry

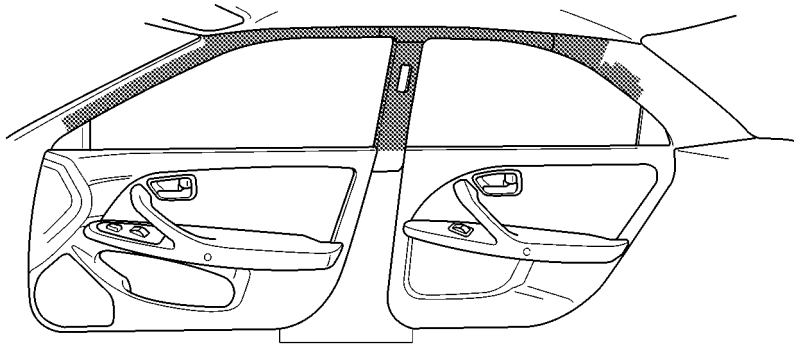


’98 Camry

2. Head Impact Absorbing Structure

- The center pillar garnish extends into the vehicle’s interior. As a result, the effectiveness in reducing the impact in case the occupant’s head collides against the pillar, such as due to the repercussion of a collision, is provided.
- The construction of a Head Impact Protection Structure consisting of internal ribs and inner panel of the roof side rail has been changed.

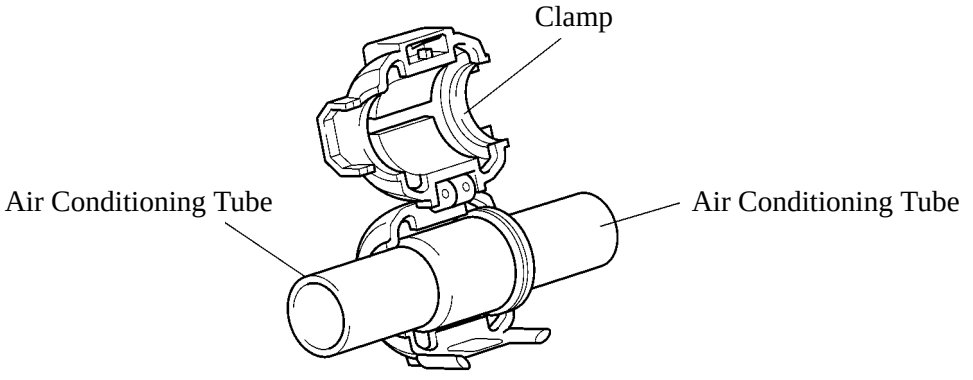
: Head Impact Protection Structure



5

■AIR CONDITIONING

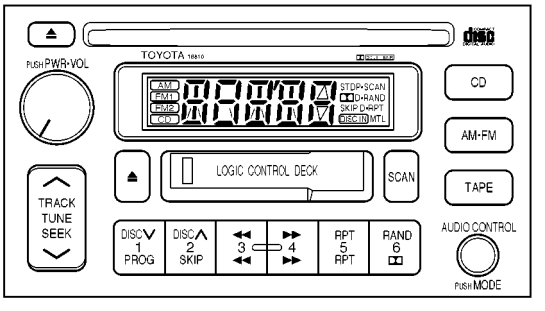
The joint of the air conditioning tube, which passes through the dash panel, has been changed from the nut-and-union type that is used on the ’98 model to the clamp type quick joint. As a result, the ease of operation and service has been improved.



160CM04

■AUDIO

An AM/FM ETR with Cassette Deck and CD Player with built-in power amplifier is available as an option on the LE grade model.
On this audio unit, the letters of the LED have been enlarged to improve the ease of monitoring the operating condition of the audio unit.



160CM01

MAJOR TECHNICAL SPECIFICATIONS

▶TERCEL

Item \ Area				U.S.A.			
Body Type				2-Door		4-Door	
Vehicle Grade				CE			
Model Code				EL53L-ADMRKA	EL53L-ADHRKA	EL53L-AEMRKA	EL53L-AEPRKA
Major Dimensions & Vehicle Weights	Overall	Length	mm (in.)	4130 (162.6)	×	×	×
		Width	mm (in.)	1660 (65.4)	×	×	×
		Height*	mm (in.)	1375 (54.1)	×	×	×
	Wheel Base		mm (in.)	2380 (93.7)	×	×	×
	Tread	Front	mm (in.)	1400 (55.1)	×	×	×
		Rear	mm (in.)	1395 (54.9)	×	×	×
	Effective Head Room	Front	mm (in.)	979 (38.5)	×	×	×
		Rear	mm (in.)	926 (36.5)	×	×	×
	Effective Leg Room	Front	mm (in.)	1046 (41.2)	×	×	×
		Rear	mm (in.)	801 (31.5)	×	×	×
	Shoulder Room	Front	mm (in.)	1315 (51.8)	×	1316 (51.8)	×
		Rear	mm (in.)	1311 (51.6)	×	1300 (51.2)	×
	Overhang	Front	mm (in.)	810 (31.9)	×	×	×
		Rear	mm (in.)	940 (37.0)	×	×	×
	Min. Running Ground Clearance		mm (in.)	125 (4.9)	×	×	×
	Angle of Approach		degrees	19°	×	×	×
	Angle of Departure		degrees	17°	×	×	×
	Curb Weight	Front	kg (lb)	562 (1240)	590 (1300)	565 (1245)	612 (1350)
		Rear	kg (lb)	365 (805)	358 (790)	374 (825)	×
		Total	kg (lb)	927 (2045)	948 (2090)	940 (2070)	986 (2175)
	Gross Vehicle Weight Rating	Front	kg (lb)	—	—	—	—
		Rear	kg (lb)	—	—	—	—
		Total	kg (lb)	1360 (3000)	1380 (3045)	1377 (3035)	1424 (3140)
	Fuel Tank Capacity		ℓ (US.gal., Imp.gal.)	45 (11.9, 9.9)	×	×	×
	Luggage Compartment Capacity		m^3 (cu.ft.)	0.263 (9.3)	×	×	×
Performance	Max. Speed		km / h (mph)	180 (112)	170 (106)	180 (112)	170 (106)
	Max. Cruising Speed		km / h (mph)	150 (93)	140 (87)	150 (93)	140 (87)
	Acceleration	0 to 100 km / h	sec.	—	—	—	—
		0 to 400 m	sec.	—	—	—	—
	Max. Permissible Speed	1st Gear	km / h (mph)	46 (28)	55 (34)	46 (28)	53 (33)
		2nd Gear	km / h (mph)	85 (53)	100 (62)	85 (53)	96 (60)
		3rd Gear	km / h (mph)	132 (82)	—	132 (82)	165 (103)
		4th Gear	km / h (mph)	—	—	—	—
	Turning Diameter (Outside Front)	Wall to Wall	m (ft.)	10.2 (33.5)	×	×	×
		Curb to Curb	m (ft.)	10.0 (32.8)	×	×	×
Engine	Engine Type			5E-FE	×	×	
	Valve Mechanism			16-Valve, DOHC	×	×	
	Bore x Stroke		mm (in.)	74.0 x 87.0 (2.91 x 3.43)	×	×	×
	Displacement		cm^3 (cu.in.)	1497 (91.3)	×	×	×
	Compression Ratio			9.4 : 1	×	×	×
	Carburetor Type			SFI	×	×	×
	Research Octane No.		RON	91	×	×	×
	Max. Output (SAE-NET)		kW / rpm (HP@rpm)	69@5400 (93@5400)	×	×	×
	Max. Torque (SAE-NET)		N·m / rpm (lb-ft@rpm)	136@4400 (100@4400)	×	×	×
Engine Electrical	Battery Capacity (5HR)		Voltage & Amp. hr.	12-40, 12-32*1, 12-48*2	12-40, 48*2	12-40, 32*1, 48*2	12-40, 48*2
	Generator Output		Watts	720, 840*1	840	720, 840*1	840
	Starter Output		kW	0.8, 1.0*2	×	×	×
Chassis	Clutch Type			Dry, Single Plate	—	Dry, Single Plate	—
	Transaxle Type			C151	A132L	C151	A242L
	Transmission Gear Ratio	In First		3.545	2.810	3.545	3.643
		In Second		1.904	1.549	1.904	2.008
		In Third		1.233	1.000	1.233	1.296
		In Fourth		0.885	—	0.885	0.892
		In Fifth		0.725	—	0.725	—
		In Reverse		3.250	2.296	3.250	2.977
	Counter Gear Ratio			—	0.945	—	—
	Differential Gear Ratio (Final)			3.722	×	×	2.821
	Brake Type	Front		Ventilated Disc	×	×	×
		Rear		L.T. Drum	×	×	×
	Parking Brake Type			Drum	×	×	×
	Brake Booster Type and Size		in.	Single, 8”	×	×	×
	Proportioning Valve type			Dual-P Valve	×	×	×
	Suspension Type	Front		MacPherson Strut	×	×	×
		Rear		Torsion Beam	×	×	×
	Stabilizer Bar	Front		STD	×	×	×
		Rear		STD	×	×	×
	Steering Gear Type			Rack and Pinion	×	×	×
	Steering Gear Ratio (Overall)			21.8, 17.5*1	×	×	×
	Power Steering Type			Integral Type*1	×	×	×

* : Unladen Vehicle
*1: Option
*2: Set Option with Cold Area Spec.
*3: With P175 / 65R14 or P185 / 60R14 Tire

Canada				
2-Door			4-Door	
CE				
EL53L-ADMRKK	EL53L-ADPRKK	EL53L-ADHRKK	EL53L-AEMRKK	EL53L-AEPRKK
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
1315 (51.8)	×	×	1316 (51.8)	×
1311 (51.6)	×	×	1300 (51.2)	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
569 (1255)	617 (1360)	596 (1315)	572 (1260)	619 (1365)
367 (810)	×	360 (795)	376 (830)	×
937 (2065)	984 (2170)	957 (2110)	948 (2090)	995 (2195)
—	—	—	—	—
—	—	—	—	—
1345 (2965)	1395 (3075)	1365 (3010)	1360 (2998)	1405 (3097)
×	×	×	×	×
×	×	×	×	×
180 (112)	170 (106)	×	180 (112)	170 (106)
150 (93)	140 (87)	×	150 (93)	140 (87)
—	—	—	—	—
—	—	—	—	—
46 (28)	53 (33)	55 (34)	46 (28)	53 (33)
85 (53)	96 (60)	100 (62)	85 (53)	96 (60)
132 (82)	165 (103)	—	132 (82)	165 (103)
—	—	—	—	—
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
12-48	×	×	×	×
×	×	×	×	×
1.0	×	×	×	×
Dry, Single Plate	—	—	Dry, Single Plate	—
C151	A242L	A132L	C151	A242L
3.545	3.643	2.810	3.545	3.643
1.904	2.008	1.549	1.904	2.008
1.233	1.296	1.000	1.233	1.296
0.885	0.892	—	0.885	0.892
0.725	—	—	0.725	—
3.250	2.977	2.296	3.250	2.977
—	—	0.945	—	—
3.722	2.821	3.722	×	2.821
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
OPT*[3]	×	×	×	×
STD	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×

▶PASEO

Item \ Area			U.S.A.		Canada	
Body Type			2-Door Coupe			
Vehicle Grade			—		—	
Model Code			EL54L-DCMSKA	EL54L-DCPSKA	EL54L-DCMSKK	EL54L-DCPSKK
Major Dimensions & Vehicle Weights	Overall	Length mm (in.)	4155 (163.6)	×	×	×
		Width mm (in.)	1660 (65.4)	×	×	×
		Height* mm (in.)	1296 (51.0)	×	×	×
	Wheel Base	mm (in.)	2380 (93.7)	×	×	×
	Tread	Front mm (in.)	1405 (55.3)	×	×	×
		Rear mm (in.)	1395 (54.9)	×	×	×
	Effective Head Room	Front mm (in.)	960 (37.8)	×	×	×
		Rear mm (in.)	812 (32.0)	×	×	×
	Effective Leg Room	Front mm (in.)	1044 (41.1)	×	×	×
		Rear mm (in.)	762 (30.0)	×	×	×
	Shoulder Room	Front mm (in.)	1315 (51.8)	×	×	×
		Rear mm (in.)	1280 (50.4)	×	×	×
	Overhang	Front mm (in.)	925 (36.4)	×	×	×
		Rear mm (in.)	845 (33.3)	×	×	×
	Min. Running Ground Clearance	mm (in.)	125 (4.9)	×	×	×
	Angle of Approach	degress	13°	×	×	×
	Angle of Departure	degress	21°	×	×	×
	Curb Weight	Front kg (lb)	583 (1285)	628 (1385)	587 (1295)	633 (1395)
		Rear kg (lb)	352 (775)	×	354 (780)	×
		Total kg (lb)	935 (2060)	980 (2160)	941 (2075)	987 (2175)
	Gross Vehicle Weight Rating	Front kg (lb)	—	—	—	—
		Rear kg (lb)	—	—	—	—
		Total kg (lb)	1284 (2830)	1331 (2935)	1281 (2825)	1331 (2935)
	Fuel Tank Capacity	ℓ (US.gal., Imp.gal.)	45 (11.9, 9.9)	×	×	×
	Luggage Compartment Capacity	m^3 (cu.ft.)	0.277 (7.5)	×	×	×
Performance	Max. Speed	km / h (mph)	180 (112)	175 (109)	180 (112)	175 (109)
	Max. Cruising Speed	km / h (mph)	145 (90)	140 (87)	145 (90)	140 (87)
	Acceleration	0 to 100 km / h sec.	11.0	12.0	11.0	12.0
		0 to 400 m sec.	17.8	18.6	17.8	18.6
	Max. Permissible	1st Gear km / h (mph)	42 (26)	53 (33)	42 (26)	53 (33)
		2nd Gear km / h (mph)	80 (50)	97 (61)	80 (50)	97 (61)
		3rd Gear km / h (mph)	117 (73)	—	117 (73)	—
		4th Gear km / h (mph)	160 (99)	—	160 (99)	—
	Turning Diameter (Outside Front)	Wall to Wall m (ft.)	10.5 (34.4)	×	×	×
		Curb to Curb m (ft.)	10.0 (32.8)	×	×	×
Engine	Engine Type		5E-FE	×	×	×
	Valve Mechanism		16-Valve, DOHC	×	×	×
	Bore x Stroke	mm (in.)	74.0 x 87.0 (2.91 x 3.43)	×	×	×
	Displacement	cm^3 (cu.in.)	1497 (91.3)	×	×	×
	Compression Ratio		9.4 : 1	×	×	×
	Carburetor Type		SFI	×	×	×
	Research Octane No.	RON	91	×	×	×
	Max. Output (SAE-NET)	kW / rpm (HP@rpm)	69 / 5400 (93@5400)	×	×	×
	Max. Torque (SAE-NET)	N·m / rpm (lb-ft@rpm)	136 / 4400 (100@4400)	×	×	×
Engine Electrical	Battery Capacity (5HR)	Voltage & Amp. hr.	12-40, 48*1	×	12-48	×
	Generator Output	Watts	720, 840*1	840	×	×
	Starter Output	kW	0.8, 1.0*1	×	1.0	×
Chassis	Clutch Type		Dry, Single	—	Dry, Single	—
	Transaxle Type		C150	A244E	C150	A244E
	Transmission Gear Ratio	In First	3.545	4.005	3.545	4.005
		In Second	1.904	2.208	1.904	2.208
		In Third	1.310	1.425	1.310	1.425
		In Fourth	0.969	0.981	0.969	0.981
		In Fifth	0.815	—	0.815	—
		In Reverse	3.250	3.272	3.250	3.272
	Counter Gear Ratio		—	—	—	—
	Differential Gear Ratio (Final)		3.941	2.821	3.941	2.821
	Brake Type	Front	Ventilated Disc	×	×	×
		Rear	L.T. Drum	×	×	×
	Parking Brake Type		Drum	×	×	×
	Brake Booster Type and Size	in.	Single, 8”	×	×	×
	Proportioning Valve Type		Dual P-Valve	×	×	×
	Suspension Type	Front	MacPherson Strut	×	×	×
		Rear	Torsion Beam	×	×	×
	Stabilizer Bar	Front	STD	×	×	×
		Rear	STD	×	×	×
	Steering Gear Type		Rack and Pinion	×	×	×
	Steering Gear Ratio (Overall)		17.5 : 1	×	×	×
	Power Steering Type		Integral Type	×	×	×

* : Unladen Vehicle
*1: Option

– MEMO –

▶COROLLA

Item \ Area			U.S.A.			
Body Type			4-Door Sedan			
Vehicle Grade			VE		CE	
Model Code			ZZE110L-DEMRKA	ZZE110L-DEHRKA	ZZE110L-DEMDKA	ZZE110L-DEPDKA
Major Dimensions & Vehicle Weights	Overall	Length mm (in.)	4420 (174.0)	×	×	×
		Width mm (in.)	1695 (66.7)	×	×	×
		Height* mm (in.)	1385 (54.5)	×	×	×
	Wheel Base	mm (in.)	2465 (97.0)	×	×	×
	Tread	Front mm (in.)	1460 (57.5)	×	×	×
		Rear mm (in.)	1450 (57.1)	×	×	×
	Effective Head Room	Front mm (in.)	998 (39.2)	×	×	×
		Rear mm (in.)	937 (36.9)	×	×	×
	Effective Leg Room	Front mm (in.)	1079 (42.5)	×	×	×
		Rear mm (in.)	810 (31.9)	×	×	×
	Shoulder Room	Front mm (in.)	1341 (52.8)	×	×	×
		Rear mm (in.)	1326 (52.2)	×	×	×
	Overhang	Front mm (in.)	890 (35.0)	×	×	×
		Rear mm (in.)	1065 (41.9)	×	×	×
	Min. Running Ground Clearance	mm (in.)	120 (4.7)	×	×	×
	Angle of Approach	degrees	16°	×	×	×
	Angle of Departure	degrees	15°	×	×	×
	Curb Weight	Front kg (lb)	650 (1433)	675 (1488)	650 (1433)	685 (1510)
		Rear kg (lb)	445 (981)	440 (970)	450 (992)	×
		Total kg (lb)	1095 (2414)	1115 (2458)	1100 (2425)	1135 (2502)
	Gross Vehicle Weight	Front kg (lb)	—	—	—	—
		Rear kg (lb)	—	—	—	—
		Total kg (lb)	1595 (3516)	×	×	×
	Fuel Tank Capacity	ℓ (US.gal., Imp.gal)	50 (13.2, 11.0)	×	×	×
	Luggage Compartment Capacity	m^3 (cu.ft.)	0.343 (12.1)	×	×	×
Performance	Max. Speed	km / h (mph)	180 (111)	×	×	×
	Max. Cruising Speed	km / h (mph)	165 (102)	×	×	×
	Acceleration	0 to 100 km / h sec.	—	—	—	—
		0 to 400 m sec.	17.0	18.4	17.0	17.8
	Max. Permissible Speed	1st Gear km / h (mph)	54 (34)	70 (43)	54 (34)	65 (40)
		2nd Gear km / h (mph)	91 (57)	126 (78)	91 (57)	118 (73)
		3rd Gear km / h (mph)	132 (82)	180 (112)	132 (82)	180 (112)
		4th Gear km / h (mph)	180 (112)	—	180 (112)	—
	Turning Diameter (Outside Front)	Wall to Wall m (ft.)	10.4 (34.1)	×	×	×
		Curb to Curb m (ft.)	9.8 (32,2)	×	×	×
Engine	Engine Type		1ZZ-FE	×	×	×
	Valve Mechanism		16-Valve DOHC	×	×	×
	Bore x Stroke	mm (in.)	79.0 x 91.5 (3.11 x 3.60)	×	×	×
	Displacement	cm^3 (cu.in.)	1794 (109.5)	×	×	×
	Compression Ratio		10.0 : 1	×	×	×
	Carburetor Type		SFI	×	×	×
	Research Octane No.	RON	91	×	×	×
	Max. Output (SAE-NET)	kW / rpm (HP@rpm)	89 / 5600 (120@5600)	×	×	×
	Max. Torque (SAE-NET)	N·m / rpm (lb-ft@rpm)	165 / 4400 (122@4400)	×	×	×
Engine Electrical	Battery Capacity (5HR)	Voltage & Amp. hr.	12 – 48	×	×	×
	Generator Output	Watts	960	×	×	×
	Starter Output	kW	1.2, 1.4*1	×	×	×
Chassis	Clutch Type		Dry, Single	—	Dry, Signle	—
	Transaxle Type		C59	A131L	C59	A245E
	Transmission Gear Ratio	In First	3.166	2.810	3.166	3.643
		In Second	1.904	1.549	1.904	2.008
		In Third	1.310	1.000	1.310	1.296
		In Fourth	0.885	—	0.885	0.892
		In Fifth	0.725	—	0.725	—
		In Reverse	3.250	2.296	3.250	2.977
	Counter Gear Ratio		—	0.945	—	—
	Differential Gear Ratio (Final)		3.722	3.421	3.722	2.655
	Brake Type	Front	Ventilated Disc	×	×	×
		Rear	Leading-Trailing Drum	×	×	×
	Parking Brake Type		Drum	×	×	×
	Brake Booster Type and Size	in.	Single, 9”	×	×	×
	Proportioning Valve Type		Dual-P Valve	×	×	×
	Suspension Type	Front	MacPherson Strut	×	×	×
		Rear	MacPherson Strut	×	×	×
	Stabilizer Bar	Front	STD	×	×	×
		Rear	STD	×	×	×
	Steering Gear Type		Rack and Pinion	×	×	×
	Steering Gear Ratio (Overall)		18.1	×	×	×
	Power Steering Type		Integral Type	×	×	×

*: Unladen Vehicle
*1: Option

U.S.A.		Canada			
4-Door Sedan					
LE		VE			CE
ZZE110L-DEMNKA	ZZE110L-DEPNKA	ZZE110L-DEMRKK	ZZE110L-DEHRKK	ZZE110L-DEPRKK	ZZE110L-DEMDKK
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
660 (1455)	690 (1521)	650 (1433)	675 (1488)	685 (1510)	650 (1433)
455 (1003)	×	445 (981)	440 (970)	×	450 (992)
1115 (2458)	1145 (2524)	1095 (2414)	1115 (2414)	1125 (2480)	1110 (2425)
—	—	—	—	×	×
—	—	—	—	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
—	—	—	—	—	—
17.0	17.8	17.0	18.4	17.8	17.0
54 (34)	65 (40)	54 (34)	70 (43)	65 (40)	54 (34)
91 (57)	118 (73)	91 (57)	126 (78)	118 (73)	91 (57)
132 (82)	180 (112)	132 (82)	180 (112)	180 (112)	132 (82)
180 (112)	—	180 (112)	—	—	180 (112)
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
Dry, Single	—	Dry, Single	—	—	Dry, Single
C59	A245E	C59	A131L	A245E	C59
3.166	3.643	3.166	2.810	3.643	3.166
1.904	2.008	1.904	1.549	2.008	1.904
1.310	1.296	1.310	1.000	1.296	1.310
0.885	0.892	0.885	—	0.892	0.885
0.725	—	0.725	—	—	0.725
3.250	2.977	3.250	2.296	2.977	3.250
—	—	—	0.945	—	—
3.722	2.655	3.722	3.421	2.655	3.722
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×

Item \ Area			Canada	
Body Type			4-Door Sedan	
Vehicle Grade			CE	LE
Model Code			ZZE110L-DEPDKK	ZZE110L-DEPNKK
Major Dimensions & Vehicle Weights	Overall	Length mm (in.)	4420 (174.0)	×
		Width mm (in.)	1695 (66.7)	×
		Height* mm (in.)	1385 (54.5)	×
	Wheel Base	mm (in.)	2465 (97.0)	×
	Tread	Front mm (in.)	1460 (57.5)	×
		Rear mm (in.)	1450 (57.1)	×
	Effective Head Room	Front mm (in.)	998 (39.3)	×
		Rear mm (in.)	937 (36.9)	×
	Effective Leg Room	Front mm (in.)	1079 (42.5)	×
		Rear mm (in.)	810 (31.9)	×
	Shoulder Room	Front mm (in.)	1341 (52.8)	×
		Rear mm (in.)	1326 (52.2)	×
	Overhang	Front mm (in.)	890 (35.0)	×
		Rear mm (in.)	1065 (41.9)	×
	Min. Running Ground Clearance	mm (in.)	120 (4.7)	×
	Angle of Approach	degrees	16°	×
	Angle of Departure	degrees	15°	×
	Curb Weight	Front kg (lb)	685 (1510)	690 (1521)
		Rear kg (lb)	450 (992)	455 (1003)
		Total kg (lb)	1135 (2502)	1145 (2524)
	Gross Vehicle Weight	Front kg (lb)	—	—
		Rear kg (lb)	—	—
		Total kg (lb)	1595 (3516)	×
	Fuel Tank Capacity	ℓ (US.gal., Imp.gal)	50 (13.2, 11.0)	×
	Luggage Compartment Capacity	m^3 (cu.ft.)	0.343 (12.1)	×
Performance	Max. Speed	km / h (mph)	180 (111)	×
	Max. Cruising Speed	km / h (mph)	165 (102)	×
	Acceleration	0 to 100 km / h sec.	—	—
		0 to 400 m sec.	17.8	—
	Max. Permissible Speed	1st Gear km / h (mph)	65 (40)	×
		2nd Gear km / h (mph)	118 (73)	×
		3rd Gear km / h (mph)	180 (112)	—
		4th Gear km / h (mph)	—	—
	Turning Diameter (Outside Front)	Wall to Wall m (ft.)	10.4 (34.1)	×
		Curb to Curb m (ft.)	9.8 (32.2)	×
Engine	Engine Type		1ZZ-FE	×
	Valve Mechanism		16-Valve, DOHC	×
	Bore x Stroke	mm (in.)	79.0 x 91.5 (3.11 x 3.60)	×
	Displacement	cm^3 (cu.in.)	1794 (109.5)	×
	Compression Ratio		10.0 : 1	×
	Carburetor Type		SFI	×
	Research Octane No.	RON	91	×
	Max. Output (SAE-NET)	kW / rpm (HP@rpm)	89 / 5600 (120@5600)	×
	Max. Torque (SAE-NET)	N·m / rpm (lb-ft@rpm)	165 / 4400 (122@4400)	×
Engine Electrical	Battery Capacity (5HR)	Voltage & Amp. hr.	12 – 48	×
	Generator Output	Watts	960	×
	Starter Output	kW	1.4	×
Chassis	Clutch Type		—	—
	Transaxle Type		A245E	×
	Transmission Gear Ratio	In First	3.643	×
		In Second	2.008	×
		In Third	1.296	×
		In Fourth	0.892	×
		In Fifth	—	—
		In Reverse	2.977	×
	Counter Gear Ratio		—	—
	Differential Gear Ratio (Final)		2.655	×
	Brake Type	Front	Ventilated Disc	×
		Rear	Leading-Trailing Drum	×
	Parking Brake Type		Drum	×
	Brake Booster Type and Size	in.	Single, 9”	×
	Proportioning Valve Type		Dual-P Valve	×
	Suspension Type	Front	MacPherson Strut	×
		Rear	MacPherson Strut	×
	Stabilizer Bar	Front	STD	×
		Rear	STD	×
	Steering Gear Type		Rac and Pinion	×
	Steering Gear Ratio (Overall)		18.1	×
	Power Steering Type		Integral Type	×

*: Unladen Vehicle

– MEMO –

▶CELICA

Item \ Area				U.S.A.		Canada	
Body Type				Liftback			
Vehicle Grade				ST		GT	
Model Code				ST204L-BLMSKA	ST204L-BLPSKA	ST204L-BLMGKK	ST204L-BLPGKK
Major Dimensions & Vehicle Weights	Overall	Length	mm (in.)	4425 (174.2)	×	×	×
		Width	mm (in.)	1750 (68.9)	×	×	×
		Height*	mm (in.)	1305 (51.4)	×	×	×
	Wheel Base		mm (in.)	2540 (100.0)	×	×	×
	Tread	Front	mm (in.)	1515 (59.6)	×	×	×
		Rear	mm (in.)	1495 (58.9)	×	×	×
	Effective Head Room	Front	mm (in.)	974 (38.4), 928 (36.6)*1	×	×	×
		Rear	mm (in.)	843 (33.2)	×	×	×
	Effective Leg Room	Front	mm (in.)	1122 (44.2)	×	×	×
		Rear	mm (in.)	681 (26.8)	×	×	×
	Shoulder Room	Front	mm (in.)	1333 (52.5)	×	×	×
		Rear	mm (in.)	1268 (49.9)	×	×	×
	Overhang	Front	mm (in.)	990 (39.0)	×	×	×
		Rear	mm (in.)	895 (35.2)	×	×	×
	Min. Running Ground Clearance		mm (in.)	130 (5.1)	×	×	×
	Angle of Approach		degress	14.5°	×	×	×
	Angle of Departure		degress	18°	×	×	×
	Curb Weight	Front	kg (lb)	728 (1605)	755 (1665)	728 (1605)	755 (1665)
		Rear	kg (lb)	447 (985)	×	×	×
		Total	kg (lb)	1176 (2590)	1203 (2650)	1176 (2590)	1203 (2650)
	Gross Vehicle Weight	Front	kg (lb)				
		Rear	kg (lb)				
		Total	kg (lb)	1585 (3495)	×	×	×
	Fuel Tank Capacity		ℓ (US.gal., Imp.gal.)	60 (15.9, 13.2)	×	×	×
	Luggage Compartment Capacity		m^3 (cu.ft.)	—	—	—	—
Performance	Max. Speed		km / h (mph)	200 (124)	195 (121)	200 (124)	195 (121)
	Max. Cruising Speed		km / h (mph)	185 (115)	180 (112)	185 (115)	180 (112)
	Acceleration	0 to 60 km / h	sec.	8.7	9.7	8.7	9.7
		0 to 400 m	sec.	16.5	17.2	16.5	17.2
	Max. Permissible Speed	1st Gear	km / h (mph)	51 (32)	59 (37)	51 (32)	59 (37)
		2nd Gear	km / h (mph)	85 (53)	108 (67)	85 (53)	108 (67)
		3rd Gear	km / h (mph)	126 (78)	—	126 (78)	—
		4th Gear	km / h (mph)	—	—	—	—
	Turning Diameter (Outside Front)	Wall to Wall	m (ft.)	11.2 (36.7)	×	×	×
		Curb to Curb	m (ft.)	10.4 (3.41)	×	×	×
Engine	Engine Type			5S-FE	×	×	×
	Valve Mechanism			16-Valve, DOHC	×	×	×
	Bore x Stroke		mm (in.)	87.0 x 91.0 (3.43 x 3.58)	×	×	×
	Displacement		cm^3 (cu.in.)	2164 (132.0)	×	×	×
	Compression Ratio			9.5 : 1	×	×	×
	Fuel System			SFI	×	×	×
	Research Octane No.		RON	96	×	×	×
	Max. Output (SAE-NET)		kW / rpm (HP / rpm)	97 / 5400 (130 / 5400)	×	×	×
	Max. Torque (SAE-NET)		N·m / rpm (lb-ft / rpm)	197 / 4400 (145 / 4400)	×	×	×
Engine Electrical	Battery Capacity (5HR)		Voltage & Amp. hr.	12-52	×	×	×
	Generator Output		Watts	840	960	840	960
	Starter Output		kW	1.4	×	×	×
Chassis	Clutch Type			Dry, Single Plate	—	Dry, Single Plate	—
	Transaxle Type			S54	A140E	S54	A140E
	Transmission Gear Ratio	In First		3.285	2.810	3.285	2.810
		In Second		1.960	1.549	1.960	1.549
		In Third		1.322	1.000	1.322	1.000
		In Fourth		1.028	0.706	1.028	0.706
		In Fifth		0.820	—	0.820	—
		In Reverse		3.153	2.296	3.153	2.296
	Counter Gear Ratio			—	0.945	—	0.945
	Differential Gear Ratio (Final)			4.176	3.950	4.176	3.950
	Brake Type	Front		Ventilated Disc	×	×	×
		Rear		Solid Disc	×	×	×
	Parking Brake Type			Duo Servo	×	×	×
	Brake Booster Type and Size		in.	Tandem, 7" + 8"	×	×	×
	Proportioning Valve Type			Dual-P Valve	×	×	×
	Suspension Type	Front		MacPherson Strut	×	×	×
		Rear		MacPherson Strut	×	×	×
	Stabilizer Bar	Front		STD	×	×	×
		Rear		STD	×	×	×
	Steering Gear Type			Rack & Pinion	×	×	×
	Steering Gear Ratio (Overall)			17.2	×	×	×
	Power Steering Type			Integral Type	×	×	×

* : Unladed Vehicle
*1: With Sun Roof

– MEMO –

▶CAMRY

Item \ Area				U.S.A.			
Body Type				4-Door Sedan			
Vehicle Grade				CE		LE	XLE
Model Code				SXV20L-CEMDKA	SXV20L-CEPDKA	SXV20L-A(C)EPNKA	SXV20L-A(C)EPGKA
Major Dimensions & Vehicle Weights	Overall	Length	mm (in.)	4785 (188.4)	×	×	×
		Width	mm (in.)	1780 (70.1)	×	×	×
		Height*	mm (in.)	1415 (55.7)	×	×	×
	Wheel Base		mm (in.)	2670 (105.1)	×	×	×
	Tread	Front	mm (in.)	1545 (60.8)	×	×	×
		Rear	mm (in.)	1520 (59.8)	×	×	×
	Effective Head Room	Front	mm (in.)	980 (38.6), 950 (37.4)*1	×	×	×
		Rear	mm (in.)	940 (37.0), 914 (36.0)*1	×	×	×
	Effective Leg Room	Front	mm (in.)	1102 (43.4)	×	×	×
		Rear	mm (in.)	901 (35.5)	×	×	×
	Shoulder Room	Front	mm (in.)	1427 (56.2)	×	×	×
		Rear	mm (in.)	1425 (56.1)	×	×	×
	Overhang	Front	mm (in.)	970 (38.2)	×	×	×
		Rear	mm (in.)	1140 (44.9)	×	×	×
	Min. Running Ground Clearance		mm (in.)	130 (5.1)	×	×	×
	Angle of Approach		degrees	16°	×	×	×
	Angle of Departure		degrees	16°	×	×	×
	Curb Weight	Front	kg (lb)	810 (1786)	835 (1841)	865 (1907)*2, 870 (1918)*3	×
		Rear	kg (lb)	550 (1213)	545 (1202)	535 (1179)*2, 545 (1202)*3	540 (1191)*2, 550 (1213)*3
		Total	kg (lb)	1360 (2999)	1380 (3043)	1400 (3086)*2, 1415 (3120)*3	1405 (3098)*2, 1420 (3131)*3
	Gross Vehicle Weight	Front	kg (lb)	995 (2195)	×	×	×
		Rear	kg (lb)	900 (1985)	×	×	×
		Total	kg (lb)	1895 (4180)	×	×	×
	Fuel Tank Capacity		ℓ (US.gal., Imp.gal)	70 (18.5, 15.4)	×	×	×
	Luggage Compartment Capacity		m^3 (cu.ft.)	0.399 (14.1)	×	×	×
Performance	Max. Speed		km / h (mph)	180 (112)	×	×	×
	Max. Cruising Speed		km / h (mph)	—	—	—	—
	Acceleration	0 to 100 km / h	sec.	—	—	—	—
		0 to 400 m	sec.	—	—	—	—
	Max. Permissible Speed	1st Gear	km / h (mph)	52 (32)	69 (43)	×	×
		2nd Gear	km / h (mph)	93 (58)	125 (78)	×	×
		3rd Gear	km / h (mph)	147 (91)	—	—	—
		4th Gear	km / h (mph)	—	—	—	—
	Turning Diameter (Outside Front)	Wall to Wall	m (ft.)	115 (37.7)	×	×	×
		Curb to Curb	m (ft.)	11.0 (36.1)	×	×	×
Engine	Engine Type			5S-FE	×	×	×
	Valve Mechanism			16-Valve, DOHC	×	×	×
	Bore x Stroke		mm (in.)	87.0 x 91.0 (3.43 x 3.58)	×	×	×
	Displacement		cm^3 (cu.in.)	2164 (132.0)	×	×	×
	Compression Ratio			9.5 : 1	×	×	×
	Carburetor Type			SFI	×	×	×
	Research Octane No.		RON	91	×	×	×
	Max. Output (SAE-NET)		kW / rpm (HP@rpm)	99 / 5200(133@5200),97 / 5200(130@5200)*4	×	×	×
	Max. Torque (SAE-NET)		N·m / rpm (lb-ft@rpm)	199 / 4400(147@4400),197 / 4400(145@4400)*4	×	×	×
Engine Electrical	Battery Capacity (5HR)		Voltage & Amp. hr.	12 – 55, 12 – 48*5	×	×	×
	Generator Output		Watts	960	×	×	×
	Starter Output		kW	1.4	×	×	×
Chassis	Clutch Type			Dry, Single Plate	—	—	—
	Transaxle Type			S51	A140E	×	×
	Transmission Gear Ratio	In First		3.538	2.810	×	×
		In Second		1.960	1.549	×	×
		In Third		1.250	1.000	×	×
		In Fourth		0.945	0.706	×	×
		In Fifth		0.731	—	—	—
		In Reverse		3.153	2.296	×	×
	Counter Gear Ratio			—	0.945	×	×
	Differential Gear Ratio (Final)			3.944	×	×	×
	Brake Type	Front		Ventilated Disc	×	×	×
		Rear		L.T. Drum	×	×	×
	Parking Brake Type			Drum	×	×	×
	Brake Booster Type and Size		in.	Tandem 8" + 9"	×	Tandem 8.5" + 8.5"*2, 8" + 9"*3	×
	Proportioning Valve Type			Dual-P Valve	×	×	×
	Suspension Type	Front		MacPherson Strut	×	×	×
		Rear		MacPherson Strut	×	×	×
	Stabilizer Bar	Front		STD	×	×	×
		Rear		STD	×	×	×
	Steering Gear Type			Rack and Pinion	×	×	×
	Steering Gear Ratio (Overall)			17.4 : 1	×	×	×
	Power Steering Type			Integral Type	×	×	×

*: Unladed Vehicle
*1: With Moor Roof
*2: Produced by TMC
*3: Produced by TMMK
*4: California Specification Model
*5: Without Cold Area Specification Model

U.S.A.			Canada		
4-Door Sedan					
CE	LE	XLE	CE		LE
MCV20L-CEMNKA	MCV20L-A(C)EPNKA	MCV20L-A(C)EPGKA	SXV20L-AEMDKK	SXV20L-AEPDKK	SXV20L-AEPNKK
×	×	×	×	×	×
×	×	×	×	×	×
1420 (55.9)	×	×	1415 (55.7)	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
135 (5.3)	×	×	130 (5.1)	×	×
×	×	×	×	×	×
×	×	×	×	×	×
880 (1940)	915 (2017)*2, 920 (2028)*3	920 (2028)*2, 925 (2039)*3	805 (1775)	830 (1830)	865 (1907)
560 (1234)	540 (1191)*2, 550 (1213)*3	×	540 (1190)	535 (1179)	535 (1179)
1440 (3174)	1455 (3208)*2, 1470 (3241)*3	1460 (3219)*2, 1475 (3252)*3	1345 (2965)	1365 (3009)	1400 (3086)
1040 (2290)	×	×	995 (2195)	×	×
×	×	×	×	×	×
1940 (4275)	×	×	1895 (4180)	×	×
×	×	×	×	×	×
×	×	×	×	×	×
210 (130	×	×	180 (112)	×	×
—	—	—	—	—	—
—	—	—	—	—	—
—	—	—	—	—	—
57 (35)	70 (43)	×	52 (32)	69 (43)	×
97 (60)	127 (79)	×	93 (58)	125 (78)	×
148 (92)	—	—	147 (91)	—	—
—	—	—	—	—	—
11.9 (39.0)	×	×	11.5 (37.7)	×	×
11.4 (37.4)	×	×	11.0 (36.1)	×	×
1MZ-FE	×	×	5S-FE	×	×
24-Valve, DOHC	×	×	16-Valve, DOHC	×	×
87.5 x 83.0 (3.44 x 3.27)	×	×	87.0 x 91.0 (3.43 x 3.58)	×	×
2995 (182.7)	×	×	2164 (132.0)	×	×
10.5 : 1	×	×	9.5 : 1	×	×
×	×	×	×	×	×
91 or higher	×	×	91	×	×
145 / 5200 (194@5200)	145/5200(194@5200),143/5200(192@5200)*4	×	99 / 5200 (133@5200)	×	×
283 / 4400 (209@4400)	283 /4400(209@4400),281/4400(207@4400)*4	×	199 / 4400 (147@4400)	×	×
×	×	×	12 – 55	×	×
×	×	×	×	×	×
×	×	×	×	×	×
Dry, Single Plate	—	—	Dry, Single Plate	—	—
E153	A541E	×	S51	A140E	×
3.230	2.810	×	3.538	2.810	×
1.913	1.549	×	1.960	1.549	×
1.258	1.000	×	1.250	1.000	×
0.918	0.735	×	0.945	0.706	×
0.731	—	—	0.731	—	—
3.545	2.296	×	3.153	2.296	×
—	0.945	×	—	0.945	×
3.933	×	×	3.944	×	×
×	×	×	×	×	×
Solid Disc	×	×	L.T. Drum	×	×
×	×	×	×	×	×
Tandem 8” + 9”	Tandem 8.5” + 8.5”*2, 8” + 9”*3	×	Tandem 8” + 9”	×	Tandem 8.5” + 8.5”*2, 8” + 9”*3
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×
×	×	×	×	×	×

Item \ Area				Canada	
Body Type				4-Door Sedan	
Vehicle Grade				CE	XLE
Model Code				MCV20L-AEPDKK	MCV20L-AEPGKK
Major Dimensions & Vehicle Weights	Overall	Length	mm (in.)	4785 (188.4)	×
		Width	mm (in.)	1780 (70.1)	×
		Height*	mm (in.)	1420 (55.9)	×
	Wheel Base		mm (in.)	2670 (105.1)	×
	Tread	Front	mm (in.)	1545 (60.8)	×
		Rear	mm (in.)	1520 (59.8)	×
	Effective Head Room	Front	mm (in.)	980 (38.6), 950 (37.4)*1	×
		Rear	mm (in.)	940 (37.0), 914 (36.0)*1	×
	Effective Leg Room	Front	mm (in.)	1102 (43.4)	×
		Rear	mm (in.)	901 (35.5)	×
	Shoulder Room	Front	mm (in.)	1427 (56.2)	×
		Rear	mm (in.)	1425 (56.1)	×
	Overhang	Front	mm (in.)	970 (38.2)	×
		Rear	mm (in.)	1140 (44.9)	×
	Min. Running Ground Clearance		mm (in.)	135 (5.3)	×
	Angle of Approach		degrees	16°	×
	Angle of Departure		degrees	16°	×
	Curb Weight	Front	kg (lb)	860 (1896)	920 (2028)
		Rear	kg (lb)	540 (1190)	540 (1191)
		Total	kg (lb)	1400 (3086)	1460 (3219)
	Gross Vehicle Weight	Front	kg (lb)	1040 (2290)	×
		Rear	kg (lb)	900 (1985)	×
		Total	kg (lb)	1940 (4275)	×
	Fuel Tank Capacity		ℓ (US.gal., Imp.gal)	70 (18.5, 15.4)	×
	Luggage Compartment Capacity		m^3 (cu.ft.)	0.399 (14.1)	×
Performance	Max. Speed		km / h (mph)	210 (130)	×
	Max. Cruising Speed		km / h (mph)	—	×
	Acceleration	0 to 100 km / h	sec.	—	—
		0 to 400 m	sec.	—	—
	Max. Permissible Speed	1st Gear	km / h (mph)	70 (43)	×
		2nd Gear	km / h (mph)	127 (79)	×
		3rd Gear	km / h (mph)	—	—
		4th Gear	km / h (mph)	—	—
	Turning Diameter (Outside Front)	Wall to Wall	m (ft.)	11.9 (39.0)	×
		Curb to Curb	m (ft.)	11.4 (37.4)	×
Engine	Engine Type			1MZ-FE	×
	Valve Mechanism			24-Valve, DOHC	×
	Bore x Stroke		mm (in.)	87.5 x 83.0 (3.44 x 3.27)	×
	Displacement		cm^3 (cu.in.)	2995 (182.7)	×
	Compression Ratio			10.5 : 1	×
	Carburetor Type			SFI	×
	Research Octane No.		RON	91 or higher	×
	Max. Output (SAE-NET)		kW / rpm (HP@rpm)	145 / 5200 (194@5200)	×
	Max. Torque (SAE-NET)		N·m / rpm (lb-ft@rpm)	283 / 4400 (209@4400)	×
Engine Electrical	Battery Capacity (5HR)		Voltage & Amp. hr.	12 – 55	×
	Generator Output		Watts	960	×
	Starter Output		kW	1.4	×
Chassis	Clutch Type			—	—
	Transaxle Type			A541E	×
	Transmission Gear Ratio	In First		2.810	×
		In Second		1.549	×
		In Third		1.000	×
		In Fourth		0.735	×
		In Fifth		—	—
		In Reverse		2.296	×
	Counter Gear Ratio			×	×
	Differential Gear Ratio (Final)			3.933	×
	Brake Type	Front		Ventilated Disc	×
		Rear		Solid Disc	×
	Parking Brake Type			Drum	×
	Brake Booster Type and Size		in.	Tandem 8" + 9"	Tandem 8.5" + 8.5"*2, 8" + 9"*3
	Proportioning Valve Type			Dual-P Valve	×
	Suspension Type	Front		MacPherson Strut	×
		Rear		MacPherson Strut	×
	Stabilizer Bar	Front		STD	×
		Rear		STD	×
	Steering Gear Type			Rack and Pinion	×
	Steering Gear Ratio (Overall)			17.4 : 1	×
	Power Steering Type			Integral Type	×

*: Unladed Vehicle
*1: With Moon Roof
*2: Produced by TMC
*3: Produced by TMMK

– MEMO –

▶AVALON

Item \ Area			U.S.A.			
Body Type			4-Door Sedan			
Vehicle Grade			XL		XLS	
Model Code			MCX10L-AEPNKA	MCX10L-AESNKA	MCX10L-AEPGKA	MCX10L-AESGKA
Major Dimensions & Vehicle Weights	Overall	Length mm (in.)	4875 (191.9)	×	×	×
		Width mm (in.)	1790 (70.5)	×	×	×
		Height* mm (in.)	1440 (56.7)	×	×	×
	Wheel Base	mm (in.)	2720 (107.1)	×	×	×
	Tread	Front mm (in.)	1550 (61.0)	×	×	×
		Rear mm (in.)	1525 (60.0)	×	×	×
	Effective Head Room	Front mm (in.)	992.7 (39.1)	×	×	×
		Rear mm (in.)	959.3 (37.8)	×	×	×
	Effective Leg Room	Front mm (in.)	1120.8 (44.1)	×	×	×
		Rear mm (in.)	972.8 (38.3)	—	—	—
	Shoulder Room	Front mm (in.)	1466 (57.7)	×	×	×
		Rear mm (in.)	1456 (57.3)	×	×	×
	Overhang	Front mm (in.)	985 (38.8)	×	×	×
		Rear mm (in.)	1170 (46.1)	×	×	×
	Min. Running Ground Clearance	mm (in.)	130 (5.1)	×	×	×
	Angle of Approach	degrees	17°	×	×	×
	Angle of Departure	degrees	15°	×	×	×
	Curb Weight	Front kg (lb)	955 (2105)	×	×	×
		Rear kg (lb)	600 (1325)	×	×	×
		Total kg (lb)	1555 (3430)	×	×	×
	Gross Vehicle Weight Rating	Front kg (lb)	1105 (2435)	×	×	×
		Rear kg (lb)	960 (2115)	×	×	×
		Total kg (lb)	2065 (4450)	×	×	×
	Fuel Tank Capacity	ℓ (US.gal., Imp.gal)	70 (18.5, 15.4)	×	×	×
	Luggage Compartment Capacity	m^3 (cu.ft.)	—	—	—	—
Performance	Max. Speed	km / h (mph)	—	—	—	—
	Max. Cruising Speed	km / h (mph)	170 (106)	×	×	×
	Acceleration	0 to 100 km / h sec.	—	—	—	—
		0 to 400 m sec.	—	—	—	—
	Max. Permissible Speed	1st Gear km / h (mph)	68 (42)	×	×	×
		2nd Gear km / h (mph)	126 (78)	×	×	×
		3rd Gear km / h (mph)	—	—	—	—
		4th Gear km / h (mph)	—	—	—	—
	Turning Diameter (Outside Front)	Wall to Wall m (ft.)	12.2 (39.9)	×	×	×
		Curb to Curb m (ft.)	11.5 (37.6)	×	×	×
Engine	Engine Type		1MZ-FE	×	×	×
	Valve Mechanism		24-Valve, DOHC	×	×	×
	Bore x Stroke	mm (in.)	87.5 x 83.0 (3.44 x 3.27)	×	×	×
	Displacement	cm^3 (cu.in.)	2995 (182.7)	×	×	×
	Compression Ratio		10.5 : 1	×	×	×
	Carburetor Type		SFI	×	×	×
	Research Octane No.	RON	91 or higher	×	×	×
	Max. Output (SAE-NET)	kW / rpm (HP@rpm)	149 / 5200(200@5200),148 / 5200(198@5200)*1	×	×	×
	Max. Torque (SAE-NET)	N·m / rpm (lb-ft@rpm)	290 / 4400(214@4400),287 / 4400(212@4400)*1	×	×	×
Engine Electrical	Battery Capacity (5HR)	Voltage & Amp. hr.	12 – 55, 12 – 48*2	×	×	×
	Generator Output	Watts	960, 1200*1	×	×	×
	Starter Output	kW	1.4	×	×	×
Chassis	Clutch Type		—	—	—	—
	Transmission Type		A541E	×	×	×
	Transmission Gear Ratio	In First	2.810	×	×	×
		In Second	1.549	×	×	×
		In Third	1.000	×	×	×
		In Fourth	0.735	×	×	×
		In Fifth	—	—	—	—
		In Reverse	2.296	×	×	×
	Counter Gear Ratio		0.945	×	×	×
	Differential Gear Ratio (Final)		3.625	×	×	×
	Transfer and Rear Differential Gear Ratio		—	—	—	—
	Rear Differential Gear Size	in.	—	—	—	—
	Brake Type	Front	Ventilated Disc	×	×	×
		Rear	Solid Disc	×	×	×
	Parking Brake Type		Drum	×	×	×
	Brake Booster Type and Size	in.	Tandem 8" + 9"	×	×	×
	Proportioning Valve type		Dual-P Valve	×	×	×
	Suspension Type	Front	MacPherson Strut	×	×	×
		Rear	MacPherson Strut	×	×	×
	Stabilizer Bar	Front	STD	×	×	×
		Rear	STD	×	×	×
	Steering Gear Type		Rack and Pinion	×	×	×
	Steering Gear Ratio (Overall)		17.4	×	×	×
	Power Steering Type		Integral Type	×	×	×

*: Unladen Vehicle
*1: California Specification Model
*2: Without Cold Area Specification Model

Canada	
4-Door Sedan	
XL	XLS
MCX10L-AEPNKK	MCX10L-AEPGKK
×	×
×	×
×	×
×	×
×	×
×	×
×	×
×	×
×	×
×	—
×	×
×	×
×	×
×	×
×	×
×	×
×	×
960 (2115)	×
×	×
1560 (3430)	×
×	×
×	×
×	×
×	×
—	—
—	—
×	×
—	—
—	—
×	×
×	×
—	—
—	—
×	×
×	×
×	×
×	×
×	×
×	×
×	×
×	×
×	×
×	×
149 / 5200 (200@5200)	×
290 / 4400 (214@4400)	×
12 – 55	×
960	×
×	×
—	—
×	×
×	×
×	×
×	×
×	×
—	—
×	×
×	×
×	×
—	—
—	—
×	×
×	×
×	×
×	×
×	×
×	×
×	×
×	×
×	×
×	×
×	×

▶SIENNA

Item \ Area				U.S.A.			
Body Type				4-Door Wagon		5-Door Wagon	
Vehicle Grade				CE	LE or XLE	CE	LE or XLE
Model Code				MCL10L-GFSDKA	MCL10L-GFSGKA	MCL10L-PFSDKA	MCL10L-PFSGKA
Major Dimensions & Vehicle Weights	Overall	Length	mm (in.)	4915 (193.5)	×	×	×
		Width	mm (in.)	1865 (73.4)	×	×	×
		Height*	mm (in.)	1710 (67.3)	×	×	×
	Wheel Base		mm (in.)	2900 (114.2)	×	×	×
	Tread	Front	mm (in.)	1565 (61.6)	×	×	×
		Rear	mm (in.)	1610 (63.4)	×	×	×
	Effective Head Room	Front	mm (in.)	1032 (40.6)	×	×	×
		Rear	mm (in.)	1034 (40.7)	1034 (40.7)*1, 1013 (39.9)*2	1034 (40.7)	1034 (40.7)*1, 1001 (39.4)*2
	Effective Leg Room	Front	mm (in.)	1066 (42.0)	×	×	×
		Rear	mm (in.)	926 (36.5)	926 (36.5)*1, 932 (36.7)*2	926 (36.5)	926 (36.5)*1, 932 (36.7)*2
	Shoulder Room	Front	mm (in.)	1535 (60.4)	×	×	×
		Rear	mm (in.)	1574 (62.0)	×	1578 (62.1)	×
	Cargo Space	Length	mm (in.)	401 (15.8)	×	×	×
		Width	mm (in.)	1210 (47.6)	×	×	×
		Height	mm (in.)	1044 (41.1)	×	×	×
	Overhang	Front	mm (in.)	955 (37.6)	×	×	×
		Rear	mm (in.)	1060 (41.7)	×	×	×
	Min. Running Ground Clearance		mm (in.)	150 (5.9)	×	×	×
	Angle of Approach		degrees	17°	×	×	×
	Angle of Departure		degrees	17°	×	×	×
	Curb Weight	Front	kg (lb)	1000 (2205)	1025 (2260)	1025 (2260), 1030 (2271)*3	1030 (2271), 1035 (2282)*3
		Rear	kg (lb)	705 (1554)	710 (1565)	735 (1620)	×
		Total	kg (lb)	1705 (3759)	1735 (3825)	1760 (3880), 1765 (3891)*3	1765 (3891), 1770 (3902)*3
	Gross Vehicle Weight	Front	kg (lb)	—	—	—	—
		Rear	kg (lb)	—	—	—	—
		Total	kg (lb)	2380 (5247)	×	×	×
	Fuel Tank Capacity		ℓ (US.gal, Imp.gal)	79 (20.9, 17.4)	×	×	×
	Luggage Compartment Capacity		m^3 (cu.ft.)	—	—	—	—
Performance	Max. Speed		km / h (mph)	170 (105)	×	×	×
	Max. Cruising Speed		km / h (mph)	170 (105)	×	×	×
	Max. Permissible Speed	1st Gear	km / h (mph)	64 (40)	×	×	×
		2nd Gear	km / h (mph)	120 (74)	×	×	×
		3rd Gear	km / h (mph)	—	—	—	—
		4th Gear	km / h (mph)	—	—	—	—
	Turning Diameter (Outside Front)	Wall to Wall	m (ft.)	—	—	—	—
		Curb to Curb	m (ft.)	12.2	×	×	×
Engine	Engine Type			1MZ-FE	×	×	×
	Valve Mechanism			24-Valve DOHC	×	×	×
	Bore x Stroke		mm (in.)	87.5 x 83.0 (3.44 x 3.27)	×	×	×
	Displacement		cm^3 (cu.in.)	2995 (182.8)	×	×	×
	Compression Ratio			10.5 : 1	×	×	×
	Carburetor Type			SFI	×	×	×
	Research Octane No.		RON	91 or Higher	×	×	×
	Max. Output (SAE-NET)		kW / rpm (HP@rpm)	145 / 5200 (194@5200), 142 / 5200 (190@5200)*3	×	×	×
	Max. Torque (SAE-NET)		N·m / rpm (lb-ft@rpm)	283 / 4400 (209@4400), 207 / 4400 (281@4400)*3	×	×	×
Engine Electrical	Battery Capacity (5HR)		Voltage & Amp. hr.	12-52	×	×	×
	Generator Output		Watts	1200	×	×	×
	Starter Output		kW	1.4	×	×	×
Chassis	Clutch Type			—	—	—	—
	Transaxle Type			A540E	×	×	×
	Transmission Gear Ratio	In First		2.810	×	×	×
		In Second		1.549	×	×	×
		In Third		1.000	×	×	×
		In Fourth		0.734	×	×	×
		In Fifth		—	—	—	—
		In Reverse		2.296	×	×	×
	Counter Gear Ratio			1.027	×	×	×
	Differential Gear Ratio (Final)			3.625	×	×	×
	Brake Type	Front		Ventilated Disc	×	×	×
		Rear		Leading-Trailing Drum	×	×	×
	Parking Brake Type			Drum	×	×	×
	Brake Booster Type and Size		in.	Tandem, 8” + 9”	×	×	×
	Proportioning Valve Type			Dual-P Valve	×	×	×
	Suspension Type	Front		MacPherson Strut	×	×	×
		Rear		Torsion Beam	×	×	×
	Stabilizer Bar	Front		STD	×	×	×
		Rear		—	—	—	—
	Steering Gear Type			Rack and Pinion	×	×	×
	Steering Gear Ratio (Overall)			17.4	×	×	×
	Power Steering Type			Integral Type	×	×	×

*: Unladen Vehicle
*1: Bench Seat
*2: Captain Seat
*3: California Specification Model

	U.S.A.	Canada				
	4-Door Van	4-Door Wagon		5-Door Wagon		4-Door Van
	CE	CE	LE or XLE	CE	LE or XLE	CE
	MCL10L-SESDKA	MCL10L-GFSDKK	MCL10L-GFSGKK	MCL10L-PFSDKK	MCL10L-PFSGKK	MCL10L-SESDKK
5	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
10	×	×	×	×	×	×
	×	×	×	×	×	×
	—	1034 (40.7)	1034 (40.7)*1, 1013 (39.9)*2	1034 (40.7)	1034 (40.7)*1, 1001 (39.4)*2	—
	×	×	×	×	×	×
	—	926 (36.5)	926 (36.5)*1, 932 (36.7)*2	926 (36.5)	926 (36.5)*1, 932 (36.7)*2	—
15	×	×	×	×	×	×
	—	1574 (62.0)	×	1578 (62.1)	×	—
	2203 (86.7)	401 (15.8)	×	×	×	2203 (86.7)
	×	×	×	×	×	×
	×	×	×	×	×	×
20	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
25	990 (2183)	1000 (2205)	1025 (2260)	×	1030 (2271)	990 (2183)
	625 (1378)	705 (1554)	710 (1565)	735 (1620)	×	625 (1378)
	1615 (3561)	1705 (3759)	1735 (3825)	1760 (3880)	1765 (3891)	1615 (3561)
	—	—	—	—	—	×
	—	—	—	—	—	×
30	×	×	×	×	×	×
	×	×	×	×	×	×
	—	—	—	—	—	—
	×	×	×	×	×	×
	×	×	×	×	×	×
35	×	×	×	×	×	×
	×	×	×	×	×	×
	—	—	—	—	—	—
	—	—	—	—	—	—
	—	—	—	—	—	—
40	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
45	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	145kw / 5200 (194@5200)	×	×	×	×
	×	283kw / 4400 (209@4400)	×	×	×	×
50	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	—	—	—	—	—	—
	×	×	×	×	×	×
55	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	—	—	—	—	—	—
60	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
65	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
70	×	×	×	×	×	×
	—	—	—	—	—	—
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×

▶RAV4

Item \ Area				U.S.A. & Canada			
Body Type				2-Door Wagon	4-Door Wagon		2-Door Wagon
Vehicle Grade				—			
Model Code				SXA10L-AZMGKA	SXA11L-AWMGKA	SXA11L-AWPGKA	SXA15L-AZMGKA
Major Dimensions & Vehicle Weights	Overall	Length	mm (in.)	3750 (147.6), 3765 (148.2)*1	4160 (163.8), 4175 (164.4)*1	×	3750 (147.6)
		Width	mm (in.)	1695 (66.7), 1760 (69.3)*1	×	×	1695 (66.7)
		Height*	mm (in.)	1655 (65.2), 1635 (64.4)*1	1660 (65.4), 1640 (64.6)*1	×	1645 (64.8)
	Wheel Base		mm (in.)	2200 (86.1)	2410 (94.9)	×	2200 (86.1)
	Tread	Front	mm (in.)	1460 (57.5), 1480 (58.3)*1	×	×	1460 (57.5)
		Rear	mm (in.)	1465 (57.7), 1490 (58.7)*1	×	×	1470 (57.9)
	Effective Head Room	Front	mm (in.)	1015 (40.0), 948 (37.3)*2	1024 (40.3), 993 (39.1)*2	×	1015 (40.0), 948 (37.3)*2
		Rear	mm (in.)	980 (38.6), 938 (36.9)*2	990 (39.0, 950 (37.4)*2	×	980 (38.6), 938 (36.9)*2
	Effective Leg Room	Front	mm (in.)	1003 (39.5)	×	×	×
		Rear	mm (in.)	862 (33.9)	×	×	×
	Shoulder Room	Front	mm (in.)	1354 (53.3)	1349 (53.1)	×	1354 (53.3)
		Rear	mm (in.)	1276 (50.2)	1350 (53.1)	×	1276 (50.2)
	Overhang	Front	mm (in.)	745 (29.3)	×	×	×
		Rear	mm (in.)	805 (31.7), 820 (32.3)*1	1005 (39.6), 1020 (40.2)*1	×	805 (31.7)
	Min. Running Ground Clearance		mm (in.)	195 (7.7), 175 (6.9)*1	190 (7.5), 170 (6.7)*1	×	185 (7.3)
	Angle of Approach		degrees	37°, 34°*1	×	×	36°
	Angle of Departure		degrees	41°, 38°*1	28°, 27°*1	×	40°
	Curb Weight	Front	kg (lb)	735 (1620)	750 (1653)	780 (1720)	695 (1532)
		Rear	kg (lb)	490 (1080)	540 (1190)	×	450 (992)
		Total	kg (lb)	1225 (2700)	1290 (2843)	1320 (2910)	1145 (2524)
	Gross Vehicle Weight	Front	kg (lb)	—	—	—	—
		Rear	kg (lb)	—	—	—	—
		Total	kg (lb)	1655 (3649)	1790 (3946)	×	1610 (3549)
	Fuel Tank Capacity		ℓ (US.gal., Imp.gal)	58 (15.3, 12.8)	×	×	×
	Luggage Compartment Capacity		m^3 (cu.ft.)	—	—	—	—
Performance	Max. Speed		km / h (mph)	170 (106)	×	165 (103)	175 (109)
	Max. Cruising Speed		km / h (mph)	135 (84)	×	130 (81)	140 (87)
	Acceleration	0 to 100 km / h	sec.	10.2, 10.4*1	10.7, 10.9*1	12.1, 12.3*1	9.2
		0 to 400 m	sec.	17.5, 17.6*1	17.7, 17.9*1	18.8, 19.0*1	17.0
	Max. Permissible Speed	1st Gear	km / h (mph)	44 (27), 43 (26)*1	×	67 (42), 65 (40)*1	47 (29)
		2nd Gear	km / h (mph)	88 (55), 86 (53)*1	×	121 (75), 118 (73)*1	95 (59)
		3rd Gear	km / h (mph)	133 (83), 129 (80)*1	×	—	144 (89)
		4th Gear	km / h (mph)	—	—	—	—
	Turning Diameter (Outside Front)	Wall to Wall	m (ft.)	10.6 (34.8)	11.4 (37.4)	×	10.6 (34.8)
		Curb to Curb	m (ft.)	10.2 (33.5)	11.0 (36.1)	×	10.2 (33.5)
Engine	Engine Type			3S-FE	×	×	×
	Valve Mechanism			16-Valve, DOHC	×	×	×
	Bore x Stroke		mm (in.)	86.0 x 86.0 (3.39 x 3.39)	×	×	×
	Displacement		cm^3 (cu.in.)	1998 (121.9)	×	×	×
	Compression Ratio			9.5 : 1	×	×	×
	Carburetor Type			SFI	×	×	×
	Research Octane No.		RON	91	×	×	×
	Max. Output (SAE-NET)		kW / rpm (HP@rpm)	95 / 5400(127@5400),93 / 5400(125@5400)*3	×	×	×
	Max. Torque (SAE-NET)		N·m / rpm (lb-ft@rpm)	179 / 4600(132@4600),176 / 4600(130@4600)*3	×	×	×
Engine Electrical	Battery Capacity (5HR)		Voltage & Amp. hr.	12 – 36, 48*4	×	×	×
	Generator Output		Watts	960	×	×	×
	Starter Output		kW	1.2, 1.4*4	×	×	×
Chassis	Clutch Type			Dry, Single Plate, Diaphragm	×	—	Dry, Single Plate, Diaphragm
	Transaxle Type			E250F	×	A540H	E250
	Transmission Gear Ratio	In First		3.833	×	2.810	3.833
		In Second		1.913	×	1.549	1.913
		In Third		1.258	×	1.000	1.258
		In Fourth		0.918	×	0.734	0.918
		In Fifth		0.775	×	—	0.775
		In Reverse		3.583	×	2.296	3.583
	Counter Gear Ratio			—	—	1.027	—
	Differential Gear Ratio (Final)			4.933	×	4.285	4.562
	Transfer and Rear Differential Gear Ratio			2.928	×	×	—
	Rear Differential Gear Size		in.	6.7”	×	×	—
	Brake Type	Front		Ventilated Disc	×	×	×
		Rear		Leading-Trailing	×	×	×
	Parking Brake Type			Drum	×	×	×
	Brake Booster Type and Size		in.	Single, 10”	×	×	×
	Proportioning Valve Type			Dual-P Valve	×	×	×
	Suspension Type	Front		MacPherson Strut	×	×	×
		Rear		Double Wishbone	×	×	×
	Stabilizer Bar	Front		STD	×	×	×
		Rear		—	—	—	—
	Steering Gear Type			Rack & Pinion	×	×	×
	Steering Gear Ratio (Overall)			17.7 : 1	×	×	×
	Power Steering Type			Integral Type	×	×	×

*: Unladen Vehicle
*1: With 235 / 60R16 Tire
*2: With Moon Roof
*3: California Specification Model
*4: Option
*5: U.S.A. only

	U.S.A. & Canada					
	2-Door Wagon	4-Door Wagon		2-Door Soft Top		
				—		
	SXA15L-AZPGKA	SXA16L-AWMGKA	SXA16L-AWPGKA*5	SXA10L-AKMGKA	SXA10L-AKPGKA	SXA15L-AKMGKA
5	×	4160 (163.8)	×	3750 (147.6), 3765 (148.2)*1	×	3750 (147.6)
	×	×	×	1695 (66.7), 1760 (69.3)*1	×	1695 (66.7)
	×	1650 (65.0)	×	1660 (65.4), 1640 (64.6)*1	×	1650 (65.0)
	×	2410 (94.9)	×	2200 (86.1)	×	×
	×	×	×	1460 (57.5), 1480 (58.3)*1	×	1460 (57.5)
10	×	×	×	1465 (57.7), 1490 (58.7)*1	×	1470 (57.9)
	×	1024 (40.3), 993 (39.1)*2	×	999 (39.3)	×	×
	×	990 (39.0), 950 (37.4)*2	×	993 (39.1)	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
15	×	1349 (53.1)	×	1354 (53.3)	×	×
	×	1350 (53.1)	×	1276 (50.2)	×	×
	×	×	×	×	×	×
	×	1005 (39.6)	×	805 (31.7), 820 (32.3)*1	×	805 (31.7)
	×	×	×	195 (7.7), 175 (6.9)*1	×	185 (7.3)
20	×	×	×	37°, 34°*1	×	36°
	×	28°	×	41°, 38°*1	×	40°
	715 (1576)	710 (1565)	730 (1609)	740 (1631)	770 (1698)	700 (1543)
	×	500 (1102)	×	495 (1091)	×	455 (1003)
	1165 (2568)	1210 (2667)	1230 (2711)	1235 (2722)	1265 (2789)	1155 (2546)
25	—	—	—	—	—	—
	—	—	—	—	—	—
	×	1775 (3913)	×	1655 (3649)	×	1610 (3549)
	×	×	×	×	×	×
	—	—	—	—	—	—
30	170 (106)	175 (109)	170 (106)	165 (103)	160 (100)	170 (106)
	135 (84)	140 (87)	135 (84)	130 (81)	125 (78)	135 (84)
	10.3	9.7	11.5	10.4, 10.6*1	11.9, 12.1*1	9.4
	17.8	17.3	18.4	17.9, 18.0*1	19.1, 19.3*1	17.5
	72 (45)	47 (29)	72 (45)	44 (27), 43 (26)*1	67 (42), 65 (40)*1	47 (29)
35	130 (84)	95 (59)	130 (84)	88 (55), 86 (53)*1	121 (75), 118 (73)*1	95 (59)
	—	144 (89)	—	133 (83), 129 (80)*1	—	144 (90)
	—	—	—	—	—	—
	×	11.4 (37.4)	×	10.6 (34.8)	×	×
	×	11.0 (36.1)	×	10.2 (33.5)	×	×
40	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
45	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
50	×	×	×	×	×	×
	×	×	×	×	×	×
	—	Dry, Single Plate, Diaphragm	—	Dry, Single Plate, Diaphragm	—	Dry, Single Plate, Diaphragm
	A247E	E250	A247E	E250F	A540H	E250
	3.643	3.833	3.643	3.833	2.810	3.833
55	2.008	1.913	2.008	1.913	1.549	1.913
	1.296	1.258	1.296	1.258	1.000	1.258
	0.892	0.918	0.892	0.918	0.734	0.918
	—	0.775	—	0.775	—	0.775
	2.977	3.583	2.977	3.538	2.976	3.538
60	—	—	—	—	1.027	—
	3.178	4.562	3.178	4.933	4.285	4.562
	—	—	—	2.928	×	—
	—	—	—	6.7”	—	—
	×	×	×	×	×	×
65	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
70	×	×	×	×	×	×
	×	×	×	×	×	×
	—	—	—	—	—	—
	×	×	×	×	×	×
	×	×	×	×	×	×
75	×	×	×	×	×	×

Item \ Area			U.S.A. & Canada
Body Type			2-Door Soft Top
Vehicle Grade			—
Model Code			SXA15L-AKPGKA
Major Dimensions & Vehicle Weights	Overall	Length mm (in.)	3750 (147.6)
		Width mm (in.)	1695 (66.7)
		Height* mm (in.)	1650 (65.0)
	Wheel Base	mm (in.)	2200 (86.1)
	Tread	Front mm (in.)	1460 (57.5)
		Rear mm (in.)	1470 (57.9)
	Effective Head Room	Front mm (in.)	999 (39.3)
		Rear mm (in.)	993 (39.1)
	Effective Leg Room	Front mm (in.)	1003 (39.5)
		Rear mm (in.)	862 (33.9)
	Shoulder Room	Front mm (in.)	1354 (53.3)
		Rear mm (in.)	1276 (50.2)
	Overhang	Front mm (in.)	745 (29.3)
		Rear mm (in.)	805 (31.7)
	Min. Running Ground Clearance	mm (in.)	185 (7.3)
	Angle of Approach	degrees	36°
	Angle of Departure	degrees	40°
	Curb Weight	Front kg (lb)	720 (1587)
		Rear kg (lb)	455 (1003)
		Total kg (lb)	1175 (2590)
	Gross Vehicle Weight	Front kg (lb)	—
		Rear kg (lb)	—
		Total kg (lb)	1610 (3549)
	Fuel Tank Capacity	ℓ (US.gal., Imp.gal)	58 (15.3, 12.8)
	Luggage Compartment Capacity	m^3 (cu.ft.)	—
Performance	Max. Speed	km / h (mph)	165 (103)
	Max. Cruising Speed	km / h (mph)	130 (81)
	Acceleration	0 to 100 km / h sec.	10.6
		0 to 400 m sec.	18.3
	Max. Permissible Speed	1st Gear km / h (mph)	72 (45)
		2nd Gear km / h (mph)	130 (81)
		3rd Gear km / h (mph)	—
		4th Gear km / h (mph)	—
	Turning Diameter (Outside Front)	Wall to Wall m (ft.)	10.6 (34.8)
		Curb to Curb m (ft.)	10.2 (33.5)
Engine	Engine Type		3S-FE
	Valve Mechanism		16-Valve, DOHC
	Bore x Stroke	mm (in.)	86.0 x 86.0 (3.39 x 3.39)
	Displacement	cm^3 (cu.in.)	1998 (121.9)
	Compression Ratio		9.5 : 1
	Carburetor Type		SFI
	Research Octane No.	RON	91
	Max. Output (SAE-NET)	kW / rpm (HP@rpm)	95 / 5400 (127@5400), 93 / 5400 (125@5400)*3
	Max. Torque (SAE-NET)	N·m / rpm (lb-ft@rpm)	179 / 4600 (132@4600), 176 / 4600 (130@4600)*3
Engine Electrical	Battery Capacity (5HR)	Voltage & Amp. hr.	12-36, 48*4
	Generator Output	Watts	960
	Starter Output	kW	1.2, 1.4*4
Chassis	Clutch Type		—
	Transaxle Type		A247E
	Transmission Gear Ratio	In First	3.643
		In Second	2.008
		In Third	1.296
		In Fourth	0.892
		In Fifth	—
		In Reverse	2.977
	Counter Gear Ratio		—
	Differential Gear Ratio (Final)		3.718
	Transfer and Rear Differential Gear Ratio		—
	Rear Differential Gear Size	in.	—
	Brake Type	Front	Ventilated Disc
		Rear	Leading-Trailing
	Parking Brake Type		Drum
	Brake Booster Type and Size	in.	Single, 10”
	Proportioning Valve Type		Dual-P Valve
	Suspension Type	Front	MacPherson Strut
		Rear	Double Wishbone
	Stabilizer Bar	Front	STD
		Rear	—
	Steering Gear Type		Rack & Pinion
	Steering Gear Ratio (Overall)		17.7 : 1
	Power Steering Type		Integral Type

* : Unladen Vehicle
*3: California Specification Model
*4: Option

– MEMO –

▶TOYOTA TACOMA

Item \ Area				U.S.A. & Canada			
Body Type				Regular Cab (2WD)		Extra Cab (2WD)	
Vehicle Grade				DLX			
Model Code				RZN140L-TRMDKAB	RZN140L-TRSDKAB	RZN150L-CRMDKAB	RZN150L-CRSDKAB
Major Dimensions & Vehicle Weights	Overall	Length	mm (in.)	4540 (178.7)	×	5010 (197.2)	×
		Width	mm (in.)	1690 (66.5)	×	×	×
		Height*	mm (in.)	1575 (62.0), 1580 (62.2)*1	×	1580 (62.0)	×
	Wheel Base		mm (in.)	2625 (103.4)	×	3095 (121.9)	×
	Tread	Front	mm (in.)	1395 (54.9), 1425 (56.1)*1	×	1425 (56.1)	×
		Rear	mm (in.)	1415 (55.7), 1440 (56.7)*1	×	1440 (56.7)	×
	Effective Head Room	Front	mm (in.)	980 (38.6)*8, 979 (38.5)*9	×	984 (38.7), 975 (38.4)*10	×
		Rear	mm (in.)	—	—	898 (35.4)	×
	Effective Leg Room	Front	mm (in.)	1059 (41.7)	×	1088 (42.8)	×
		Rear	mm (in.)	—	—	690 (27.2)	×
	Shoulder Room	Front	mm (in.)	1375 (54.1)	×	×	×
		Rear	mm (in.)	—	—	1355 (53.3)	×
	Cargo Space	Length	mm (in.)	—	—	—	—
		Width	mm (in.)	—	—	—	—
		Height	mm (in.)	—	—	—	—
	Overhang	Front	mm (in.)	820 (32.3)	×	×	×
		Rear	mm (in.)	1095 (43.1)	×	×	×
	Min. Running Ground Clearance		mm (in.)	170 (6.7), 175 (6.9)*1	×	160 (6.3)	×
	Angle of Approach		degrees	21°	×	22°	×
	Angle of Departure		degrees	25°, 18°*2	×	×	×
	Curb Weight	Front	kg (lb)	669 (1475)	678 (1495)	717 (1580)	726 (1600)
		Rear	kg (lb)	501 (1105)	×	535 (1180)	×
		Total	kg (lb)	1170 (2580)	1179 (2600)	1252 (2760)	1261 (2780)
	Gross Vehicle Weight	Front	kg (lb)	—	—	—	—
		Rear	kg (lb)	—	—	—	—
		Total	kg (lb)	1925 (4244)	×	2040 (4497)	×
	Fuel Tank Capacity		ℓ (US.gal., Imp.gal)	57 (14.8, 12.3)	×	×	×
	Luggage Compartment Capacity		m^3 (cu.ft.)	—	—	—	—
Performance	Max. Speed		km / h (mph)	165 (103)	×	×	×
	Max. Cruising Speed		km / h (mph)	—	—	—	—
	Max. Permissible Speed	1st Gear	km / h (mph)	48 (30)	72 (45)	48 (30)	74 (46)
		2nd Gear	km / h (mph)	89 (55)	124 (77)	89 (55)	126 (78)
		3rd Gear	km / h (mph)	137 (85)	165 (103)	138 (86)	165 (103)
		4th Gear	km / h (mph)	165 (103)	—	165 (103)	—
	Turning Diameter (Outside Front)	Wall to Wall	m (ft.)	11.5 (37.3)	×	13.2 (43.3)	×
		Curb to Curb	m (ft.)	10.8 (35.4)	×	12.6 (41.3)	×
Engine	Engine Type			2RZ-FE	×	×	×
	Valve Mechanism			16-Valve DOHC	×	×	×
	Bore x Stroke		mm (in.)	95.0 x 86.0 (3.74 x 3.39)	×	×	×
	Displacement		cm^3 (cu.in.)	2438 (148.8)	×	×	×
	Compression Ratio			9.5	×	×	×
	Carburetor Type			SFI	×	×	×
	Research Octane No.		RON	91	×	×	×
	Max. Output (SAE-NET)		kW / rpm (HP@rpm)	106 / 5000 (142@5000)	×	×	×
	Max. Torque (SAE-NET)		N·m / rpm (lb-ft@rpm)	217 / 4000 (160@4000)	×	×	×
Engine Electrical	Battery Capacity (5HR)		Voltage & Amp. hr.	12 – 48, 55*3	×	×	×
	Generator Output		Watts	840	×	×	×
	Starter Output		kW	1.4	×	×	×
Chassis	Clutch Type			Dry, Single Plate	—	Dry, Single Plate	—
	Transmission Type			W59	A43D	W59	A43D
	Transmission Gear Ratio	In First		3.954	2.452	3.954	2.452
		In Second		2.141	1.452	2.141	1.451
		In Third		1.384	1.000	1.384	1.000
		In Fourth		1.000	0.688	1.000	0.688
		In Fifth		0.810	—	0.810	—
		In Reverse		4.091	2.212	4.091	2.212
	Transfer Gear Ratio H4 / L4			—	—	—	—
	Differential Gear Ratio (Front / Rear)			— / 3.416	— / 3.583	— / 3.416	— / 3.583
	Differential Gear Size (Front / Rear)		in.	— / 7.5”	×	×	×
	Brake Type	Front		Ventilated Disk	×	×	×
		Rear		L.T. Drum	×	×	×
	Parking Brake Type			L.T. Drum	×	×	×
	Brake Booster Type and Size		in.	Tandem 7” + 8”, 8” + 9”*4	×	×	×
	Proportioning Valve Type			LSP & BV	×	×	×
	Suspension Type	Front		Double Wishbone, Coil	×	×	×
		Rear		Rigid Leaf	×	×	×
	Stabilizer Bar	Front		STD	×	×	×
		Rear		—	—	—	—
	Steering Gear Type			Rack & Pinion	×	×	×
	Steering Gear Ratio (Overall)			22.3, 20.4*5	×	×	×
	Power Steering Type			Integral Type	×	×	×

*: Unladen Vehicle
*1: With P215 / 70 14 Tire
*2: With Rear Bumper
*3: Option
*4: With ABS
*5: With Power Steering
*6: With 31 x 10.5R 15 Tire or P265 / 75R 15 Tire
*7: With Wheel Opening Extention
*8: Bench Seat
*9: Separate Seat
*10: With Moon Roof

	U.S.A. & Canada					
	Extra Cab (2WD)		Regular Cab (4WD)		Extra Cab (4WD)	
	DLX					
	VZN150L-CRMDKAB	VZN150L-CRSDKAB	RZN161L-TRMDKAB	RZN161L-TRPDKAB	RZN171L-CRMDKAB	RZN171L-CRPDKAB
5	×	×	4665 (183.7)	×	5135 (202.2)	×
	×	×	1690 (66.5),1720 (67.7)*6,1765 (69.5)*7	×	×	×
	×	×	1715 (67.5), 1745 (68.7)*6	×	1720 (67.7), 1750 (68.9)*6	×
	×	×	2625 (103.4)	×	3095 (121.9)	×
	×	×	1460 (57.5), 1500 (59.1)*6	×	×	×
10	×	×	1455 (57.3), 1495 (58.9)*6	×	×	×
	×	×	980 (38.6)*8, 979 (38.5)*9	×	984 (38.7), 975 (38.4)*10	×
	×	×	—	—	898 (35.4)	×
	×	×	1059 (41.7)	×	1088 (42.8)	×
	×	×	—	—	690 (27.2)	×
15	×	×	×	×	×	×
	×	×	—	—	1355 (53.3)	×
	—	—	—	—	—	—
	—	—	—	—	—	—
	—	—	—	—	—	—
20	×	×	800 (31.5)	×	×	×
	×	×	1240 (48.8)	×	×	×
	175 (6.9)	×	280 (11.0), 310 (12.2)*6	×	280 (11.0), 315 (12.4)*6	×
	×	×	32°, 35°*6	×	×	×
	×	×	24°, 26°*6	×	×	×
25	780 (1720)	789 (1740)	850 (1875)	864 (1905)	891 (1965)	905 (1995)
	540 (1190)	×	608 (1340)	×	633 (1395)	×
	1320 (2910)	1329 (2930)	1458 (3215)	1472 (3245)	1524 (3360)	1538 (3390)
	—	—	—	—	—	—
	—	—	—	—	—	—
30	×	×	2315 (5104)	×	×	×
	×	×	68 (18.0, 15.0)	×	×	×
	—	—	—	—	—	—
	×	×	×	×	×	×
	—	—	—	—	—	—
35	55 (34)	74 (46)	47 (29)	60 (37)	47 (29)	60 (37)
	101 (63)	134 (85)	87 (54)	109 (68)	85 (53)	109 (68)
	143 (89)	165 (103)	135 (84)	165 (103)	135 (84)	165 (103)
	165 (103)	—	165 (103)	—	165 (103)	—
	×	×	11.2 (36.7)	×	12.9 (42.3)	×
40	×	×	10.5 (34.4)	×	12.2 (40.0)	×
	5VZ-FE	×	3RZ-FE	×	×	×
	24-Valve, DOHC	×	16-Valve, DOHC	×	×	×
	93.5 x 82.0 (3.68 x 3.23)	×	95.0 x 95.0 (3.74 x 3.74)	×	×	×
	3378 (206.1)	×	2694 (164.3)	×	×	×
45	9.6	×	9.5	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
	142 / 4800 (190@4800)	×	112 / 4800 (150@4800)	×	×	×
	298 / 3600 (220@3600)	×	240 / 4000 (177@4000)	×	×	×
50	12 – 48, 55*3	×	12 – 55	×	×	×
	×	×	×	×	×	×
	×	1.4, 1.8*3	1.4, 2.0*3	×	×	×
	Dry, Single Plate	—	Dry, Single Plate	—	Dry, Single Plate	—
	R150	A340E	W59	A340F	W59	A340F
55	3.830	2.804	3.954	2.804	3.954	2.804
	2.062	1.531	2.141	1.531	2.141	1.531
	1.436	1.000	1.384	1.000	1.384	1.000
	1.000	0.705	1.000	0.705	1.000	0.705
	0.838	—	0.810	—	0.810	—
60	4.220	2.393	4.091	2.393	4.091	2.393
	—	—	1.000 / 2.566	×	×	×
	– / 3.153	×	3.583 / 3.583, 4.100 / 4.100*6	4.100 / 4.100, 4.555 / 4.555*6	3.583 / 3.583, 4.100 / 4.100*6	4.100 / 4.100, 4.555 / 4.555*6
	– / 8”	×	7.5” / 8”	×	×	×
	×	×	×	×	×	×
65	×	×	×	×	×	×
	×	×	×	×	×	×
	×	×	Tandem 8” + 9”	×	×	×
	×	×	×	×	×	×
	×	×	×	×	×	×
70	×	×	×	×	×	×
	×	×	×	×	×	×
	—	—	—	—	—	—
	×	×	×	×	×	×
	20.4	×	19.4	×	×	×
75	×	×	×	×	×	×

Item \ Area				U.S.A. & Canada		
Body Type				Regular Cab		
Vehicle Grade				DLX		
Model Code				RZN196L-CRPDKAB	VZN195L-CRPDKAB	RZN191L-TRPDKAB
Major Dimensions & Vehicle Weights	Overall	Length	mm (in.)	5135 (202.2)	×	4665 (183.7)
		Width	mm (in.)	1690 (66.5), 1720 (67.7)*6, 1765 (69.5)*7	×	×
		Height*	mm (in.)	1705 (67.1), 1730 (68.1)*6	×	1715 (67.5), 1745 (68.7)*6
	Wheel Base		mm (in.)	3095 (121.9)	×	2625 (103.4)
	Tread	Front	mm (in.)	1460 (57.5), 1500 (59.1)*6	×	×
		Rear	mm (in.)	1455 (57.3), 1495 (58.9)*6	×	×
	Effective Head Room	Front	mm (in.)	984 (38.7), 975 (38.4)*10	×	980 (38.6)*8, 979 (38.5)*9
		Rear	mm (in.)	898 (35.4)	×	—
	Effective Leg Room	Front	mm (in.)	1088 (42.8)	×	×
		Rear	mm (in.)	690 (27.2)	×	—
	Shoulder Room	Front	mm (in.)	1375 (54.1)	×	×
		Rear	mm (in.)	1355 (53.3)	×	—
	Cargo Space	Length	mm (in.)	—	—	—
		Width	mm (in.)	—	—	—
		Height	mm (in.)	—	—	—
	Overhang	Front	mm (in.)	800 (31.5)	×	×
		Rear	mm (in.)	1240 (48.8)	×	×
	Min. Running Ground Clearance		mm (in.)	280 (11.0), 315 (12.4)*6	×	280 (11.0), 310 (12.2)*6
	Angle of Approach		degrees	32°, 35°*6	×	×
	Angle of Departure		degrees	24°, 26°*6	×	×
	Curb Weight	Front	kg (lb)	820 (1807)	870 (1917)	780 (1720)
		Rear	kg (lb)	620 (1366)	×	595 (1312)
		Total	kg (lb)	1440 (3173)	1490 (3233)	1375 (3031)
	Gross Vehicle Weight	Front	kg (lb)	—	—	—
		Rear	kg (lb)	—	—	—
		Total	kg (lb)	2315 (1050)	×	×
	Fuel Tank Capacity		ℓ (US.gal., Imp.gal)	68 (18.0, 15.0)	×	×
	Luggage Compartment Capacity		m^3 (cu.ft.)	—	—	—
Performance	Max. Speed		km / h (mph)	161 (100)	×	×
	Max. Cruising Speed		km / h (mph)	—	—	—
	Max. Permissible Speed	1st Gear	km / h (mph)	38 (24)	41 (25)	38 (24)
		2nd Gear	km / h (mph)	71 (44)	75 (47)	71 (44)
		3rd Gear	km / h (mph)	107 (66)	103 (64)	107 (66)
		4th Gear	km / h (mph)	—	—	—
	Turning Diameter (Outside Front)	Wall to Wall	m (ft.)	12.9 (42.3)	×	11.2 (36.7)
		Curb to Curb	m (ft.)	12.2 (40.0)	×	10.5 (34.4)
Engine	Engine Type			3RZ-FE	5VZ-FE	3RZ-FE
	Valve Mechanism			16-Valve, DOHC	24-Valve, DOHC	16-Valve, DOHC
	Bore x Stroke		mm (in.)	95.0 x 95.0 (3.74 x 3.74)	93.5 x 82.0 (3.68 x 3.23)	95.0 x 45.0 (3.74 x 3.74)
	Displacement		cm^3 (cu.in.)	2694 (164.3)	3378 (206.1)	2694 (164.3)
	Compression Ratio			9.5 : 1	9.6 : 1	9.5 : 1
	Carburetor Type			SFI	×	×
	Research Octane No.		RON	91	×	×
	Max. Output (SAE-NET)		kW / rpm (HP@rpm)	112 / 4800 (150@4800)	142 / 4800 (190@4800)	112 / 4800 (150@4800)
	Max. Torque (SAE-NET)		N·m / rpm (lb-ft@rpm)	240 / 4000 (177@4000)	298 / 3600 (220@3600)	240 / 4000 (177@4000)
Engine Electrical	Battery Capacity (5HR)		Voltage & Amp. hr.	12-55	12-48, 55*4	12-55
	Generator Output		Watts	840	×	840
	Starter Output		kW	1.4, 2.0*3	1.4, 1.8*4	1.4, 2.0*3
Chassis	Clutch Type			—	—	—
	Transmission Type			A340E	×	×
	Transmission Gear Ratio	In First		2.804	×	×
		In Second		1.531	×	×
		In Third		1.000	×	×
		In Fourth		0.705	×	×
		In Fifth		—	—	—
		In Reverse		2.393	×	×
	Transfer Gear Ratio H4 / L4			—	—	—
	Differential Gear Ratio (Front / Rear)			— / 3.909, 4.300*6	— / 3.909, 4.100*1	— / 3.909, 4.300*6
	Differential Gear Size (Front / Rear)		in.	— / 8”	×	×
	Brake Type	Front		Ventilated Disc	×	×
		Rear		L.T. Drum	×	×
	Parking Brake Type			L.T. Drum	×	×
	Brake Booster Type and Size		in.	Tandem 8” + 9”	×	×
	Proportioning Valve Type			LSP & BV	×	×
	Suspension Type	Front		Double Wishbone, Coil	×	×
		Rear		Rigid Leaf	×	×
	Stabilizer Bar	Front		STD	×	×
		Rear		—	—	—
	Steering Gear Type			Rack and Pinion	×	×
	Steering Gear Ratio (Overall)			19.4	×	×
	Power Steering Type			Integral Type	×	×

* : Unladen Vehicle
*1: With 31 x 10.5 R15 Tire or P265 / 75R15 Tire
*3: With Moon Roof
*4: Option
*6: With 31 x 10.5R 15 Tire or P265 / 75R 15 Tire
*7: With Wheel Opening Extention
*10: With Moon Roof

– MEMO –

▶4RUNNER

Item \ Area				U.S.A.			
Body Type				4-Door Wagon			
Vehicle Grade				—		SR5	Limited
Model Code				RZN180L-GKMSKA	RZN180L-GKPSKA	VZN180L-GKPGKA	VZN180L-GKPZKA
Major Dimensions & Vehicle Weights	Overall	Length	mm (in.)	4655 (183.2)	×	×	×
		Width	mm (in.)	1690 (66.5), 1730 (68.1)*2	×	×	1800 (70.9)
		Height*	mm (in.)	1715 (67.5), 1740 (68.5)*2	×	×	1740 (68.5)
	Wheel Base		mm (in.)	2675 (105.3)	×	×	×
	Tread	Front	mm (in.)	1505 (59.3)	×	×	×
		Rear	mm (in.)	1495 (58.9), 1510 (59.4)*2	×	×	1510 (59.4)
	Effective Head Room	Front	mm (in.)	998 (39.3)	×	×	×
		Rear	mm (in.)	983 (38.7)	×	×	×
	Effective Leg Room	Front	mm (in.)	1081 (42.6)	×	×	×
		Rear	mm (in.)	888 (35.0)	×	×	×
	Shoulder Room	Front	mm (in.)	1361 (53.6)	×	×	×
		Rear	mm (in.)	1354 (53.3)	×	×	×
	Cargo Space	Length	mm (in.)	1147 (45.2)	×	×	×
		Width	mm (in.)	972 (38.3)	×	×	×
		Height	mm (in.)	983 (38.7)	×	×	×
	Overhang	Front	mm (in.)	920 (36.2)	×	×	×
		Rear	mm (in.)	1055 (41.5), 1060 (1055)*2	×	×	1060 (41.7)
	Min. Running Ground Clearance		mm (in.)	250 (9.8), 260 (10.2)*2	×	×	260 (10.2)
	Angle of Approach		degrees	32°, 35°*2	×	×	35°
	Angle of Departure		degrees	26°, 28°*2	×	×	28°
	Curb Weight	Front	kg (lb)	826 (1820)	837 (1845)	869 (1915)	896 (1975)
		Rear	kg (lb)	735 (1620)	744 (1640)	764 (1685)	787 (1735)
		Total	kg (lb)	1561 (3440)	1581 (3485)	1633 (3600)	1682 (3710)
	Gross Vehicle Weight	Front	kg (lb)	—	—	—	—
		Rear	kg (lb)	—	—	—	—
		Total	kg (lb)	2381 (5250)	×	×	×
	Fuel Tank Capacity		ℓ (US.gal., Imp.gal)	70 (18.5, 15.4)	×	×	×
	Luggage Compartment Capacity		m^3 (cu.ft.)	—	—	—	—
Performance	Max. Speed		km / h (mph)	165 (103)	×	×	×
	Max. Cruising Speed		km / h (mph)	132 (82)	×	×	×
	Max. Permissible Speed	1st Gear	km / h (mph)	42 (26)	56 (35)	56 (35), 59 (37)*2	59 (37)
		2nd Gear	km / h (mph)	78 (49), 77 (48)*2	104 (65), 102 (64)*2	104 (65), 107 (67)*2	107 (67)
		3rd Gear	km / h (mph)	121 (75), 119 (74)*2	—	—	—
		4th Gear	km / h (mph)	—	—	—	—
	Turning Diameter (Outside Front)	Wall to Wall	m (ft.)	12.0 (39)	×	×	×
		Curb to Curb	m (ft.)	11.6 (38)	×	×	×
Engine	Engine Type			3RZ-FE	×	5VZ-FE	×
	Valve Mechanism			16 Valve, DOHC	×	24 Valve, DOHC	×
	Bore x Stroke		mm (in.)	95.0 x 95.0 (3.74 x 3.74)	×	93.5 x 82.0 (3.68 x 3.23)	×
	Displacement		cm^3 (cu.in.)	2694 (164.3)	×	3378 (206.1)	×
	Compression Ratio			9.5 : 1	×	9.6 : 1	×
	Carburetor Type			SFI	×	×	×
	Research Octane No.		RON	91	×	×	×
	Max. Output (SAE-NET)		kW / rpm (HP@rpm)	112 / 4800 (150@4800)	×	137 / 4800 (183@4800)	×
	Max. Torque (SAE-NET)		N·m / rpm (lb-ft@rpm)	240 / 4000 (177@4000)	×	294 / 3600 (217@3600)	×
Engine Electrical	Battery Capacity (5HR)		Voltage & Amp. hr.	12 – 55	12 – 55, 64*1	12 – 48, 55*1	×
	Generator Output		Watts	840	×	×	×
	Starter Output		kW	1.4, 1.8*1	1.4, 2.0*1	1.4, 1.8*1	×
Chassis	Clutch Type			Dry, Single Plate	—	—	—
	Transmission Type			W59	A340E	×	×
	Transmission Gear Ratio	In First		3.954	2.804	×	×
		In Second		2.141	1.531	×	×
		In Third		1.384	1.000	×	×
		In Fourth		1.000	0.705	×	×
		In Fifth		0.810	—	—	×
		In Reverse		4.091	2.393	×	×
	Transfer Gear Ratio H4 / L4			—	—	—	—
	Differential Gear Ratio (Front / Rear)			–/3.727, –/4.100*2	–/3.909, –/4.300*2	–/3.727, –/4.100*2	–/4.100
	Differential Gear Size (Front / Rear)		in.	–/8”	×	×	×
	Brake Type	Front		Ventilated Disc	×	×	×
		Rear		L.T. Drum	×	×	×
	Parking Brake Type			L.T. Drum	×	×	×
	Brake Booster Type and Size		in.	Tandem 8” + 9”	×	×	×
	Proportioning Valve Type			LSP & BV, P & BV*3	×	P & BV	P & BV
	Suspension Type	Front		Double Wishbone, Coil	×	×	×
		Rear		4 Links	×	×	×
	Stabilizer Bar	Front		STD	×	×	×
		Rear		STD	×	×	×
	Steering Gear Type			Rack & Pinion	×	×	×
	Steering Gear Ratio			20.0	×	×	×
	Power Steering Type			Integral Type	×	×	×

* : Unladen Vehicle
*1: Option
*2 : With P265 / 70R16 Tire
*3: With ABS
*4: Differential Gear Ratio: 4.300
*5: Model Canada

U.S.A. & Canada				
4-Door Wagon				
—, SR5*5		SR5, SR5–V6*5		Limited
RZN185L-GKMSKA	RZN185L-GKPSKA	VZN185L-GKMGKA	VZN185L-GKPGKA	VZN185L-GKPZKA
×	×	×	×	×
1690 (66.5), 1730 (68.1)*2	×	×	×	1800 (70.9)
1715 (67.5), 1760 (69.3)*2	×	×	×	1760 (69.3)
×	×	×	×	×
×	×	×	×	×
1495 (58.9), 1510 (59.4)*2	×	×	×	1510 (59.4)
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
1055 (41.5), 1060 (41.7)*2	×	×	×	1060 (41.7)
250 (9.8), 280 (11.0)*2	×	×	×	280 (11.0)
32°, 36°*2	×	×	×	36°
26°, 29°*2	×	×	×	29°
916 (2020)	932 (2055)	978 (2155)	993 (2190)	1005 (2215)
773 (1705)	778 (1715)	785 (1730)	789 (1740)	798 (1760)
1689 (3725)	1710 (3770)	1763 (3885)	1782 (3930)	1803 (3975)
—	—	—	—	—
—	—	—	—	—
×	×	×	×	×
×	×	×	×	×
—	—	—	—	—
×	×	×	×	×
×	×	×	×	×
40 (25)	54 (34), 52 (33)*2	41 (26), 43 (27)*2	56 (35), 59 (37)*2, 56 (35)*2, 4	59 (37), 56 (35)*4
74 (46), 73 (46)*2	99 (62), 96 (60)*2	77 (48), 80 (50)*2	104 (65), 107 (67)*2, 103 (64)*2, 4	107 (67), 103 (64)*4
115 (72), 113 (71)*2	—	111 (69), 115 (72)*2	—	—
—	—	—	—	—
×	×	×	×	×
×	×	×	×	×
3RZ-FE	×	5VZ-FE	×	×
16 Valve, DOHC	×	24 Valve, DOHC	×	×
95.0 x 95.0 (3.74 x 3.74)	×	93.5 x 82.0 (3.68 x 3.23)	×	×
2694 (164.3)	×	3378 (206.1)	×	×
9.5 : 1	×	9.6 : 1	×	×
×	×	×	×	×
×	×	×	×	×
112 / 4800 (150@4800)	×	137 / 4800 (183@4800)	×	×
240 / 4000 (177@4000)	×	294 / 3600 (217@3600)	×	×
12 – 55	12 – 55, 64*1	12 – 48, 55*1	×	×
×	×	×	×	×
×	1.4, 2.0*1	1.4, 1.8*1	×	×
Dry, Single Plate	—	Dry, Single Plate	—	—
W59	A340F	R150F	A340F	×
3.954	2.804	3.830	2.804	×
2.141	1.531	2.062	1.531	×
1.384	1.000	1.436	1.000	×
1.000	0.705	1.000	0.705	×
0.810	—	0.838	—	—
4.091	2.393	4.220	2.393	×
1.000 / 2.566	×	×	×	×
4.100 / 4.100, 4.556 / 4.556*2	×	3.909 / 3.909, 4.100 / 4.100*2	3.909 / 3.909, 4.100 / 4.100*2, 4.300 / 4.300*2	4.100 / 4.100, 4.300 / 4.300*1
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
LSP & BV, P & BV*3	×	P & BV	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×
×	×	×	×	×

▶LAND CRUISER

Item \ Area				U.S.A.
Body Type				Wagon
Vehicle Grade				—
Model Code				UZJ100L-GNPEKA
Major Dimensions & Vehicle Weights	Overall	Length	mm (in.)	4890 (192.5)
		Width	mm (in.)	1940 (76.4)
		Height*	mm (in.)	1860 (73.2)
	Wheel Base		mm (in.)	2850 (112.2)
	Tread	Front	mm (in.)	1620 (63.8)
		Rear	mm (in.)	1615 (63.6)
	Effective Head Room	Front	mm (in.)	1018 (40.1), 995 (39.2)*1
		Rear	mm (in.)	1005 (39.6), 992 (39.1)*1, 993 (39.1)*1, 2
	Effective Leg Room	Front	mm (in.)	1074 (42.3)
		Rear	mm (in.)	870 (34.3), 752 (29.6)*3
	Shoulder Room	Front	mm (in.)	1558 (61.3)
		Rear	mm (in.)	1552 (61.1)
	Cargo Space	Length	mm (in.)	1176 (46.3)
		Wide	mm (in.)	1081 (42.6)
		Height	mm (in.)	1053 (41.5)
	Overhang	Front	mm (in.)	895 (35.2)
		Rear	mm (in.)	1145 (45.1)
	Min. Running Ground Clearance		mm (in.)	250 (9.8)
	Angle of Approach		degrees	31°
	Angle of Departure		degrees	24°
	Curb Weight	Front	kg (lb)	1230 (1605)
		Rear	kg (lb)	1090 (955)
		Total	kg (lb)	2320 (2560)
	Gross Vehicle Weight	Front	kg (lb)	—
		Rear	kg (lb)	—
		Total	kg (lb)	3110 (3495)
	Fuel Tank Capacity		ℓ (US.gal., Imp.gal.)	96 (25.4, 21.1)
	Luggage Compartment Capacity		m³ (cu.ft.)	—
Performance	Max. Speed		km / h (mph)	175 (109)
	Max. Cruising Speed		km / h (mph)	140 (87)
	Acceleration	0 to 60 km / h	sec.	9.9
		0 to 400 m	sec.	17.6
	Max. Permissible Speed	1st Gear	km / h (mph)	24 (15)*4, 60 (38)*5
		2nd Gear	km / h (mph)	44 (28)*4, 110 (69)*5
		3rd Gear	km / h (mph)	68 (43)*4, 168 (105)*5
		4th Gear	km / h (mph)	—
	Turning Diameter (Outside Front)	Wall to Wall	m (ft.)	12.7 (41.7)
		Curb to Curb	m (ft.)	12.1 (39.7)
Engine	Engine Type			2UZ-FE
	Valve Mechanism			32-Valve, DOHC
	Bore x Stroke		mm (in.)	94.0 x 84.0 (3.70 x 3.31)
	Displacement		cm³ (cu.in.)	4664 (284.5)
	Compression Ratio			9.6 : 1
	Fuel System			SFI
	Research Octane No.		RON	96
	Max. Output (SAE-NET)		kW / rpm (HP@rpm)	172 / 4800 (230 @ 4800)
	Max. Torque (SAE-NET)		N·m / rpm (lb-ft@rpm)	434 / 3400 (320 @ 3400)
Engine Electrical	Battery Capacity (5HR)		Voltage & Amp. hr.	12-64, 60*6
	Generator Output		Watts	960, 1200*2
	Starter Output		kW	2.0
Chassis	Clutch Type			—
	Transaxle Type			A343F
	Transmission Gear Ratio	In First		2.804
		In Second		1.531
		In Third		1.000
		In Fourth		0.753
		In Fifth		—
		In Reverse		2.393
	Counter Gear Ratio H4 / L4			1.000 / 2.488
	Differential Gear Ratio (Front / Rear)			4.300 / 4.300
	Differential Gear Size (Front / Rear)		in.	8" / 9.5"
	Brake Type	Front		Ventilated Disc
		Rear		Ventilated Disc
	Parking Brake Type			Drum
	Brake Booster Type		in.	Hydraulic
	Proportioning Valve Type			P & B Valve
	Suspension Type	Front		Double Wishbone
		Rear		4-Link with Lateral Rod
	Stabilizer Bar	Front		STD
		Rear		STD
	Steering Gear Type			Rack & Pinion
	Steering Gear Ratio (Overall)			19.8
	Power Steering Type			Integral Type

* : Unladed Vehicle
*1: With Sun Roof
*2: With Dual A / C
*3: Center Seat
*4: Transfer in Low
*5: Transfer in High
*6: Option

FOREWORD

To assist you in your service activities, this manual explains the main characteristics of the 1999 CAMRY CNG, in particular providing a technical explanation of the construction and operation of new mechanisms and new technology used.

Applicable models: SXV23 Series

This manual is divided into 3 sections.

1. **Introduction** — Vehicle Outline and model line-up.
2. **Technical Description** — Technical explanation of the construction and operation of each new system and component.
3. **Appendix** — Major technical specifications of the vehicle.

CAUTION, NOTICE, *REFERENCE* and **NOTE** are used in the following ways:

CAUTION	A potentially hazardous situation which could result in injury to people may occur if instructions on what to do or not do are ignored.
NOTICE	Damage to the vehicle or components may occur if instructions on what to do or not do are ignored.
REFERENCE	Explains the theory behind mechanisms and techniques.
NOTE	Notes or comments not included under the above 3 titles.

For detailed service specifications and repair procedures, refer to the following Repair Manuals:

Manual Name	Pub. No.
▶1999 CAMRY Repair Manual Vol. 1	RM654U1
Vol. 2	RM654U2
▶1999 CAMRY CNG Repair Manual Supplement	RM683U
▶1999 CAMRY CNG Electrical Wiring Diagram Manual	EWD371U

All information contained herein is the most up-to-date at the time of publication. We reserve the right to make changes without prior notice.

TOYOTA MOTOR CORPORATION

First Printing: Dec. 9, 1998 01-981209-00

1. Introduction

INTRODUCTION

OUTLINE OF NEW FEATURES

An engine that is based on the 5S-FE engine, yet uses natural gas, has been developed in order to reduce exhaust emissions and the amount of CO_2 discharge. A model that uses this alternative fuel engine has been added to the Camry lineup. The characteristics of the new model are listed below.

1. Exterior

A CNG (Compressed Natural Gas) mark is affixed to the luggage compartment door.

2. 5S-FNE Engine

Based on the 5S-FE gasoline engine, the 5S-FNE engine uses compressed natural gas. The fuel lines have been designed exclusively for compressed natural gas application.

3. A140E Automatic Transaxle

The gear ratio of the differential has been changed to accommodate the performance of the 5S-FNE engine.

4. Brakes

Basically, the same brakes used on the 5S-FE engine model are used on the CNG model, except that the size of the front brakes has been changed.

5. Suspension

To accommodate the weight increase of the rear section of the vehicle as a result of having the fuel tank installed in the luggage compartment, the specification of the springs used in the rear suspension has been changed to realize excellent riding comfort, stability, and controllability.

6. Tire

P205/65 R 15 tire is used.

7. Body

- ▶ To install the fuel tank in the front area of the luggage compartment, the upper back panel has been cut out.
- ▶ A performance rod that joins the tops of the right and left rear suspension strut towers has been adopted.
- ▶ The shape of the rear floor pan has been changed to prevent the luggage compartment capacity from being reduced as a result of the installation of the fuel tank in the luggage compartment.

8. Seat

A fixed type seat back is used for the rear seat.

9. Seat Belt

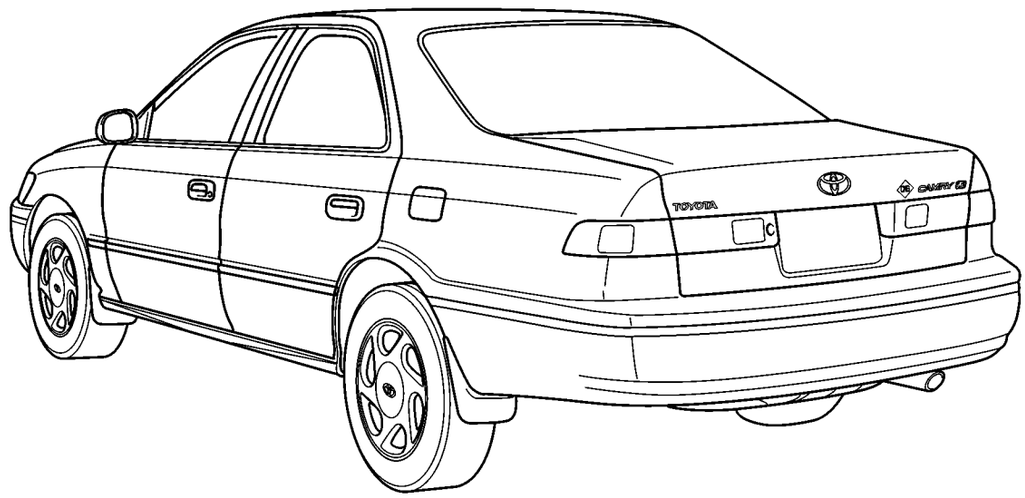
2-point NR (Non-Retractor) seat belt is used for the rear center seat.

10. SRS Airbag

A signal that causes the supply of fuel to be cut off during a frontal collision is output by the airbag sensor assembly to the ECM.

11. Audio

3-way speakers are used for the rear speaker.



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MODEL CODE

SXV23	L	–	A	E	P	N	C	A
1	2		3	4	5	6	7	8

1	BASIC MODEL CODE
	SXV23: With 5S-FNE Engine

2	STEERING WHEEL POSITION
	L: Left-Hand Drive

3	MODEL NAME
	A: Camry

4	BODY TYPE
	E: 4-Door Sedan

5	GEARSHIFT TYPE
	P: 4-Speed Automatic, Floor

6	GRADE
	N : LE

7	ENGINE SPECIFICATION
	C: CNG and DOHC

8	DESTINATION
	A: U.S.A.

MODEL LINE-UP

DESTINATION	ENGINE	BODY TYPE	GRADE	TRANSAXLE
				4-Speed Automatic
				A140E
U.S.A.	5S-FNE	4-Door Sedan	LE	SXV23L-AEPNCA

2. New Features

NF

NEW FEATURES

5S-FNE ENGINE

■ DESCRIPTION

The 5S-FNE engine is a new engine that uses CNG (Compressed Natural Gas) as fuel, which has been developed based on the 5S-FE gasoline engine.

The main component of natural gas is methane (CH_4), which has fewer carbons (C) than gasoline (mean molecular formula: $C_{7.5}H_{13.4}$). Therefore, the amount of CO_2 discharged by this engine is approximately 70% that of the gasoline engine. Furthermore, this engine achieves low-emission operation by precisely controlled air-fuel ratio and using special catalysts for the CNG application.

However, because the fuel is in the gaseous form, its volumetric efficiency is low, causing lower power output if this fuel is used in the base engine.

Therefore, the 5S-FNE engine has adopted the following features: a high compression ratio, the intake valves with early closed timing, the intake and exhaust valves with increased lift, a low back pressure muffler made possible by the 2-way exhaust system, injectors for gaseous fuel, and a catalytic converter designed exclusively for CNG application. At the same time, precision air-fuel ratio control is effected through the use of the air-fuel ratio sensor* and the heater oxygen sensor, thus achieving the level of performance that is equivalent to the base engine. Moreover, this engine realizes extremely low emissions and restoring engine torque.

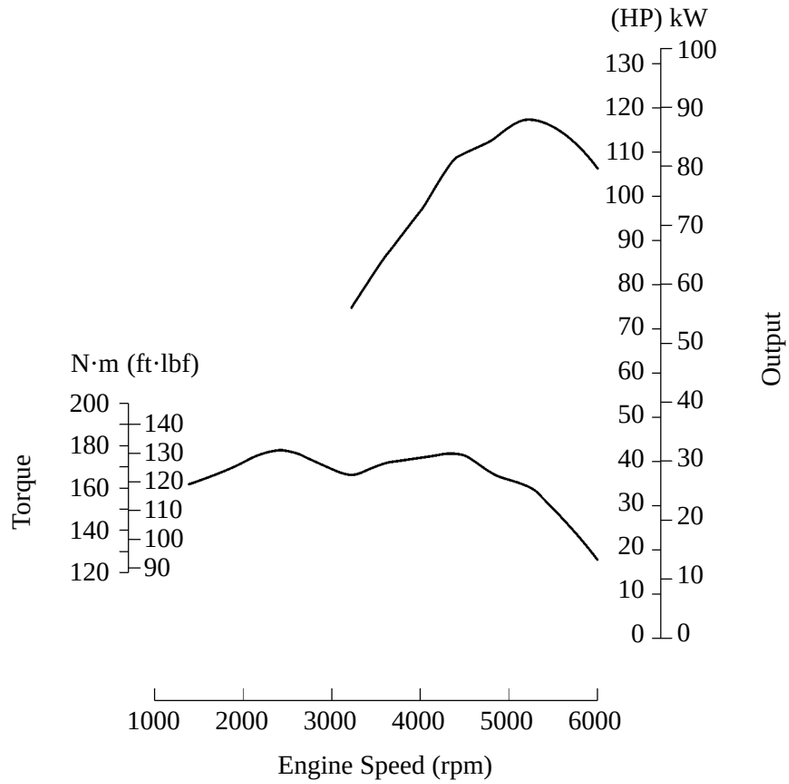
*: Already adopted on the California specification 5S-FE engine.

▶ **Specifications** °

Item			5S-FNE Engine	5S-FE Engine
No. of Cyls. & Arrangement			4-Cylinder, In-Line	
Valve Mechanism			16-Valve DOHC, Belt & Gear Drive	
Combustion Camber			Pentroof Type	
Manifolds			Cross-Flow	
Fuel System			SFI	
Displacement cm^3 (cu. in.)			2164 (132.0)	
Bore × Stroke mm (in.)			87.0 × 91.0 (3.43 × 3.58)	
Compression Ratio			11.0 : 1	9.5 : 1
Max. Output [SAE-NET]			88 kW @ 5200 rpm (118 HP @ 5200 rpm)	99 kW @ 5200 rpm (133 HP @ 5200 rpm) 97 kW @ 5200 rpm* (130 HP @ 5200 rpm)*
Max. Torque [SAE-NET]			178 N·m @ 2400 rpm (131 ft·lbf @ 2400 rpm)	199 N·m @ 4400 rpm (147 ft·lbf @ 4400 rpm) 197 N·m @ 4400 rpm* (145 ft·lbf @ 4400 rpm)*
Valve Timing	Intake	Open	3° BTDC	
		Close	38° ABDC	43° ABDC
	Exhaust	Open	45° BBDC	
		Close	3° ATDC	
Fuel Octane Number RON			130	91
Oil Grade			API SJ EC or ILSAC	

*: California Specification Models

▶ **Performance Curve** °



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NF

■FEATURES OF 5S-FNE ENGINE

Features of the 5S-FNE engine are listed below.

Item	Features
Performance	• High compression ratio is used. • High lift camshaft is used. • Low back pressure muffler is used.
Fuel Economy	• High compression ratio is used. • Valve spring load has been reduced. • Low-friction, TiN (titanium nitride) coated valve lifters has been adopted.
Low Emission	• A fuel injection system containing gas injectors has been adopted. • Because the fuel is in the gaseous state, it does not come in contact with the wall surface, making optimal air-fuel ratio control possible immediately after the engine has been started. • Precision air-fuel ratio feedback control that uses an air-fuel ratio sensor and a heated oxygen sensor has been adopted. • Two catalytic converters designed exclusively for the natural gas engine have been adopted: the WU-TWC (Warm Up Three-Way Catalytic Converter) and the TWC (Three-Way Catalytic Converter).
Other Features	• Highly rigid pistons have been adopted to accommodate the high compression ratio. • A CNG (Compressed Natural Gas) pressure regulator that precisely regulates the CNG has been adopted. • A large-bore delivery pipe and fuel hose with minimal internal conduit resistance have been adopted. • The electro magnetic fuel shut off valve is added on the delivery pipe. • A fuel pressure sensor that corrects the fuel injection volume and a fuel temperature sensor have been provided on the delivery pipe. • The starting performance of the engine at low temperatures has been ensured by increasing the volume of the airflow of the IAC (Idle Air Control). • Materials that excel in wear resistance have been adopted on the valves and valve seats for both the intake and exhaust. • Rust-resistant spark plugs have been adopted. • Aluminum lining and carbon fiber have been adopted in the fuel tank. • For the fuel gauge, a fuel tank fuel temperature sensor and a fuel pipe fuel pressure sensor have been adopted.

■ENGINE PROPER

1. General

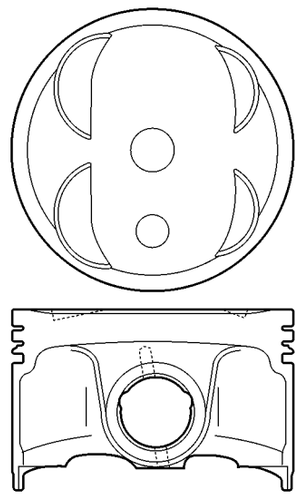
The cylinder head and the pistons have been changed for the CNG application.

2. Cylinder Head

- Materials that excel in wear resistance have been adopted on the valve seats for both the intake and exhaust.
- The shape of the holes into which the injectors mount has been changed to accommodate the injectors designed exclusively for the CNG application.
- The shape of water jacket around plug has been modified to prevent the deformation.

3. Piston

- To achieve a high compression ratio, the shape of the top of the piston has been changed and pin boss hole with taper has been adopted.
- An additional surface treatment has been provided to improve heat resistance.
- The material has been changed to increase rigidity.



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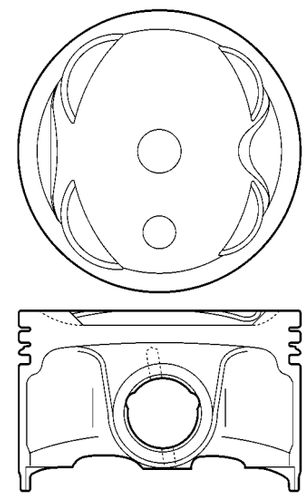
5S-FNE Engine



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5S-FE Engine

■VALVE MECHANISM

1. Camshaft

To recover the reduction of engine performance, the intake valve timing and the amount of lift of the intake and exhaust valves have been changed from those of the base 5S-FE engine.

▶ **Specifications** °

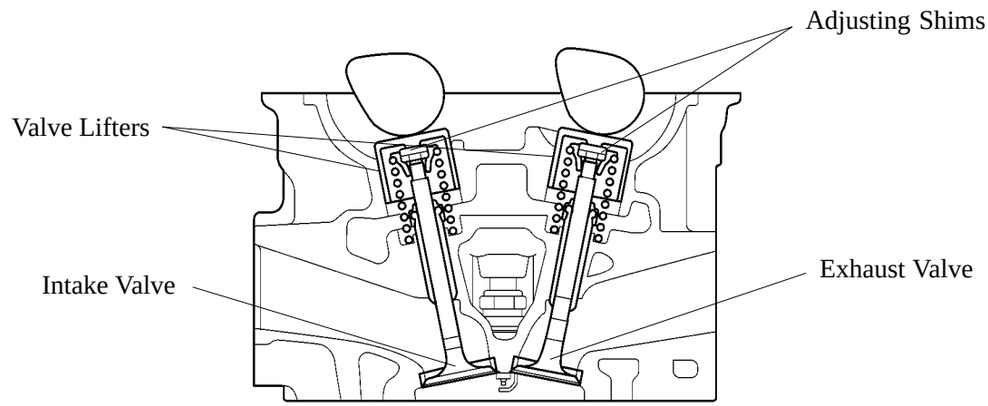
Engine	Valve Timing				Valve Lift mm (in.)	
	Intake		Exhaust		Intake	Exhaust
	Open	Close	Open	Close		
5S-FNE	3° BTDC	38° ABDC	45° BBDC	3° ATDC	7.9 (0.311)	8.25 (0.325)
5S-FE	†	43° ABDC	†	†	7.7 (0.303)	7.7 (0.303)

2. Intake and Exhaust Valves

- To improve their wear resistance, the intake valves have undergone special heat treatment, and the material of the exhaust valves has been changed.
- The shape of the stem to which the keepers attach has been changed to accommodate the adoption of the cam with a high lift and of the inner shim type valve adjusting shims.

3. Valve Lifter and Adjusting shims

- TiN (titanium nitride) coated valve lifter is used to reduce the friction.
- To accommodate the high lift, inner shim type valve adjusting shims are used.



167CN04

4. Valve Spring

The valve springs for both the intake and exhaust sides accommodate the adoption of the cam with a high lift and of the inner shim type valve adjusting shims. In addition, their spring rate has been optimized to reduce friction.

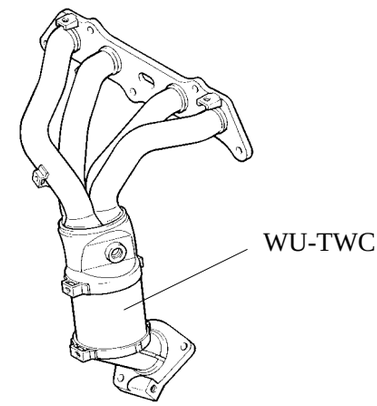
■INTAKE AND EXHAUST SYSTEM

1. Throttle Body

The throttle body is basically the same as that of the 5S-FE engine. However, to ensure the starting performance at low temperatures, the air passage for the IAC (Idle Air Control) has been increased on the 5S-FNE engine. The IAC valve is a 1-coil type with a built-in driver.

2. Exhaust Manifold

As in the California specification 5S-FE engine, the stainless steel exhaust manifold and WU-TWC (Warm Up Three-Way Catalytic Converter) have been integrated to improve the warm-up performance of TWC, thus reducing exhaust emissions. However, the 5S-FNE engine uses a catalytic converter that has been designed exclusively for the CNG application, in which the loading of the noble metal has been increased.



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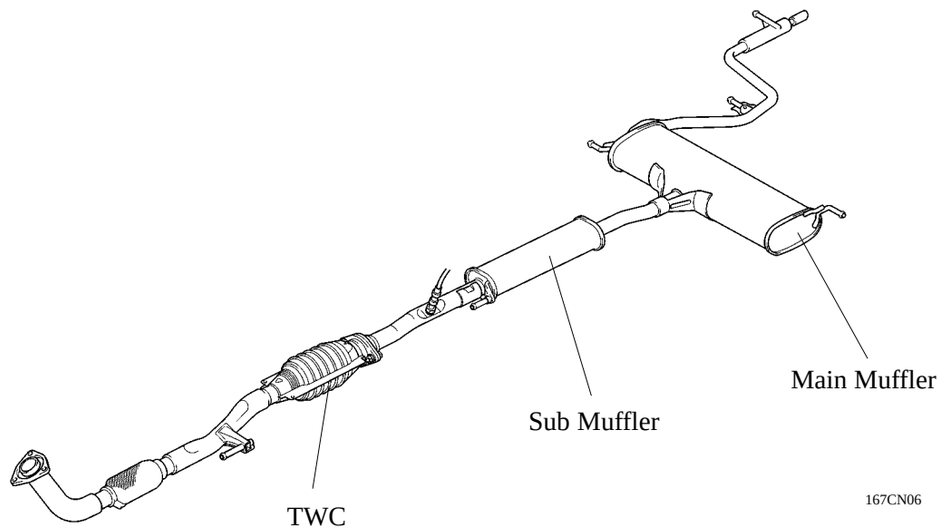
3. Exhaust Pipe

General

- To secure sufficient luggage compartment capacity, the main muffler has been relocated below the rear seat. Furthermore, the muffler capacity has been increased.
- A 2-way exhaust control system has been adopted to improve engine performance and reduce the exhaust noise.
- Similar to the WU-TWC, the TWC (Three-Way Catalytic Converter) has been designed exclusively for the CNG application, in which the loading of the noble metal has been increased.



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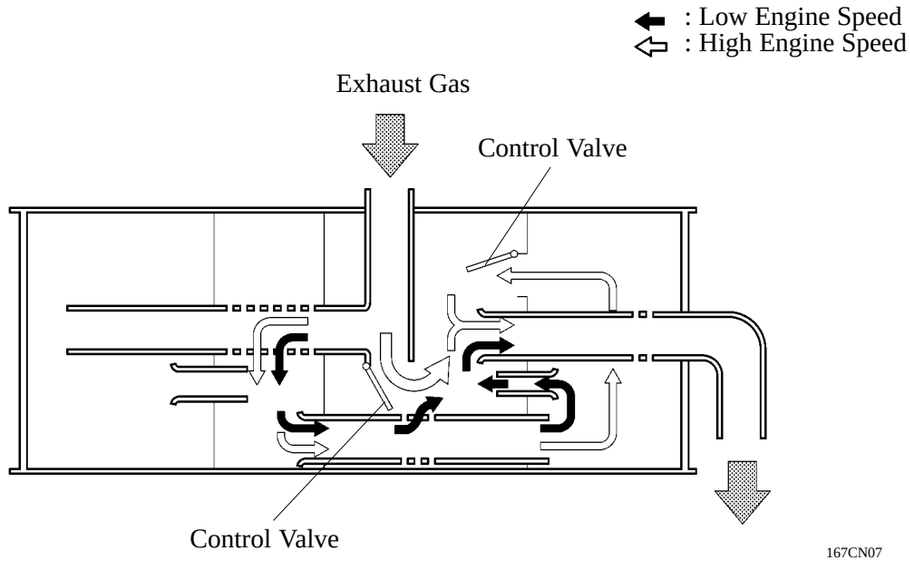
2-Way Exhaust Control System

1) General

- A 2-way exhaust control system reduces the back pressure by opening and closing two control valves that are enclosed in the main muffler, thus varying the exhaust gas passage.
- The valves open steplessly in accordance with the operating condition of the engine, thus enabling a quieter operation at low engine speeds, and reducing back pressure at high engine speeds.

2) Operation

The control valves are closed at low engine speeds because the pressure in the main muffler is low. Therefore, the exhaust gas flows as indicated by the black arrow below, thus reducing the exhaust noise. The control valves open at high engine speeds because the exhaust gas pressure increased. Therefore, the exhaust gas flows as indicated by the white arrow below to reduce the back pressure, thus improving the engine's power output.



■FUEL SYSTEM

1. General

- The compressed gas [maximum pressure approximately 250 kg/cm^2 (3600 psi, 24.8 MPa) @21°C (70°F)] from the CNG fuel tank located in the rear section of the vehicle is routed via a fuel filter to the engine compartment. The pressure of the fuel is then reduced to 8 kg/cm^2 (114 psi, 785 kPa).
- A pressure regulator and injectors designed exclusively for CNG application have been adopted.
- A fuel pressure sensor and a fuel temperature sensor that are used for the correction of the fuel injection volume are located on the delivery pipe.
- The fuel tank, pressure regulator, and the delivery pipe are provided with shutoff valves that shut off the fuel when the ignition switch is turned OFF.
  In addition, these valves shut off the fuel when the engine stalls, the SRS airbag is deployed, or the pressure in the main pipe becomes abnormally low.
- A fuel temperature sensor for the fuel gauge is mounted on the tank valve assembly, and a fuel pressure sensor is mounted immediately upstream of the pressure regulator.

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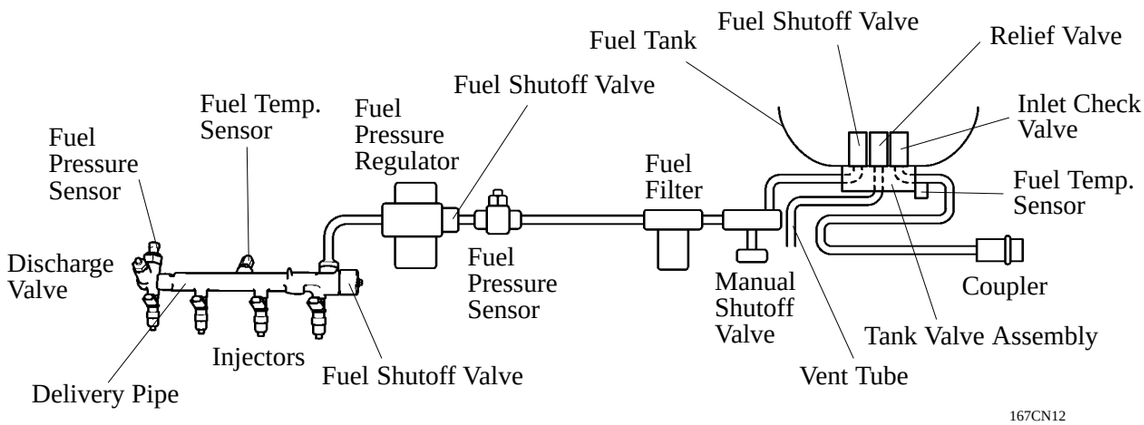
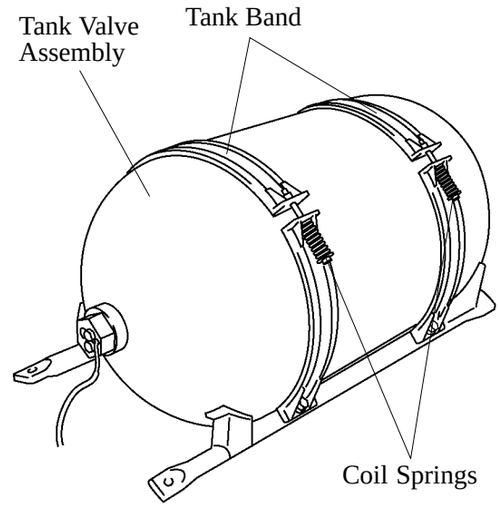
▶ **Fuel System Diagram** °



2. Fuel Tank

- A fuel tank made with carbon fiber and aluminum lining has been adopted to prevent weight increase.
- Because the fuel tank expands along with the increase in the pressure of the compressed gas, the tank bands contain coil springs to accommodate the fluctuation in the perimeter of the tank.
- The fuel tank is provided with a tank valve assembly.

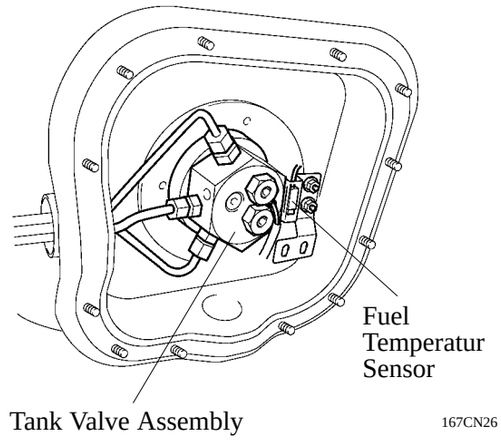


167CN08

3. Tank Valve Assembly

General

The tank valve assembly is mounted on the tank and consists of a fuel shutoff valve, inlet check valve, relief valve and two manual cutoff valves.



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Fuel Shutoff Valve for Fuel Tank

This valve uses an solenoid valve. The main pipe that supplies compressed gas to the engine is connected to this valve, which opens when the ignition switch is turned ON. If the engine stalls, this valve automatically shuts off the fuel even if the ignition switch is turned ON. The valve reopens upon restarting the engine. Also, this valve shuts off the fuel if the SRS airbag is deployed in a collision or if the pressure in the main pipe becomes abnormally low.

Inlet Check Valve

Connected to a filler pipe that guides the fuel that fills through the coupler, the inlet check valve shuts off by the force of a spring and by the pressure of the gas in the tank.
During filling, the pressure of the filling gas opens the inlet check valve.

Relief Valve

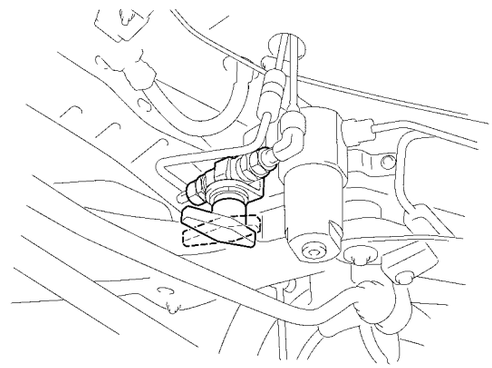
A vent tube is connected to this valve.
If the fuel tank is exposed to an abnormally high temperature, this valve opens (by melting) to discharge the CNG at a predetermined temperature, thus preventing the fuel tank from bursting due to the increase in gas pressure.
The discharged CNG is guided under the floor through a vent tube and is released outside of the vehicle.

4. Coupler

The coupler allows the fuel to be filled when it is connected with a fuel filling nozzle. The coupler has a built-in check valve to prevent the CNG from flowing backward.

5. Manual Shutoff Valve

This valve is mounted below the vehicle floor. When servicing the vehicle, this valve can be manually turned 90 degrees to shut off the main pipe.



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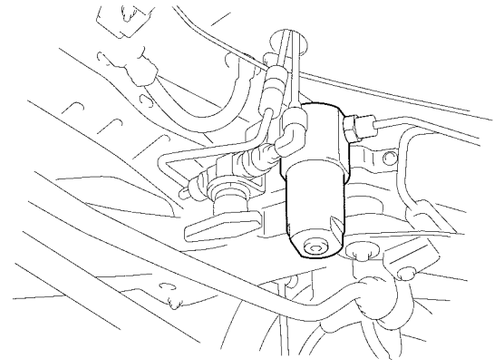
6. Fuel Filter

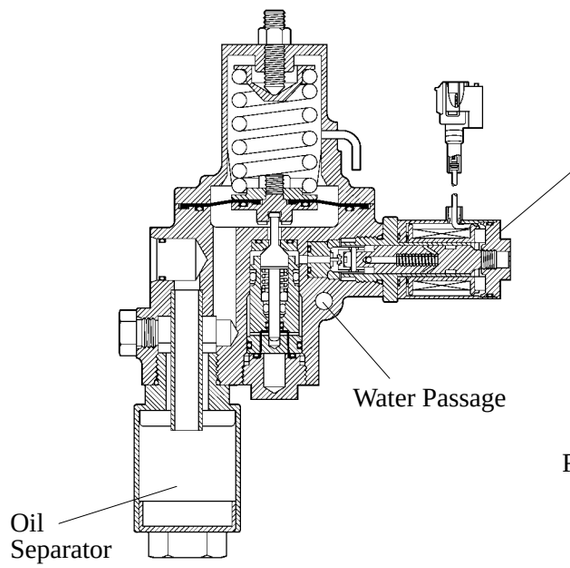
Mounted below the vehicle floor, the fuel filter removes any moisture or oil from the fuel.



167CN10

7. Fuel Pressure Regulator

- The fuel pressure regulator regulates the fuel pressure by reducing the pressure of the compressed natural gas from the fuel tank to the fuel injection pressure, which is 8 km/cm^2 (114 psi, 785 kPa).
- Similar to the fuel shutoff valve for the fuel tank, a fuel shutoff valve is provided on the fuel inlet side of the fuel pressure regulator to shut off the supply of fuel when the engine is stopped or during abnormal conditions.
- An oil separator that traps the moisture and oil in the fuel is provided on the low pressure side.
- A built-in relief valve is provided to protect the parts located on the low pressure side.
- While the fuel pressure is being reduced by the fuel pressure regulator, the Joule-Thomson effect associated with the expansion of the gas causes the fuel pressure regulator to be cooled excessively, exerting unfavorable influence on the rubber parts such as diaphragms and fuel hoses.
  Therefore, to raise the gas temperature, a water passage is provided in the fuel pressure regulator to allow the engine coolant to warm the regulator.



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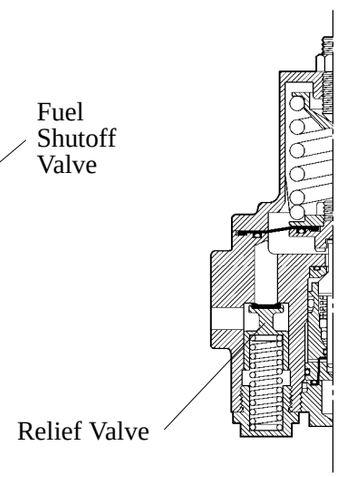

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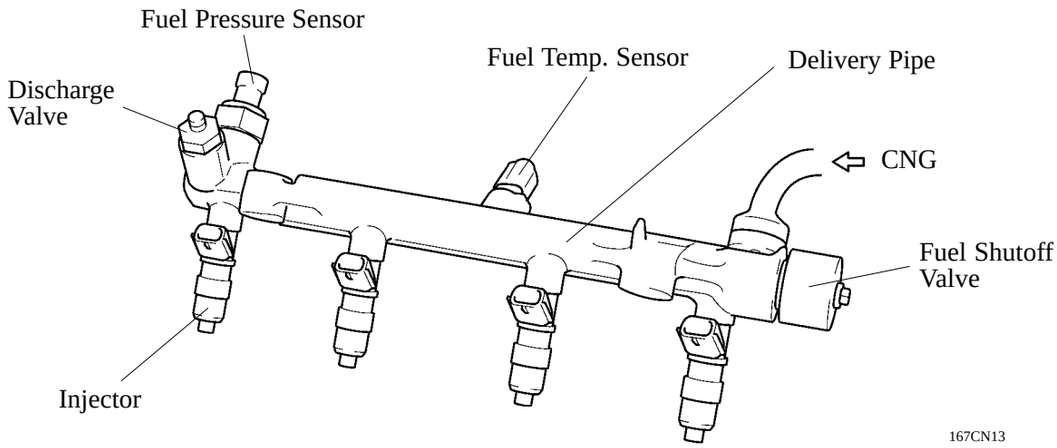
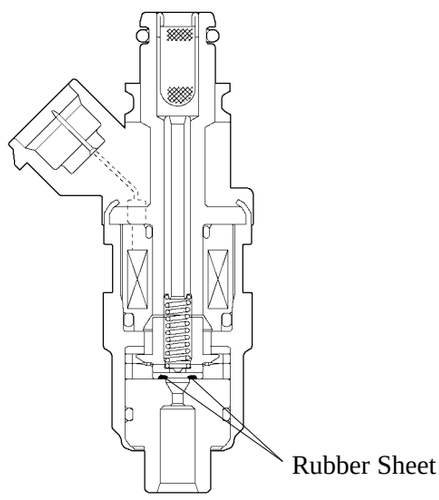
8. Delivery Pipe

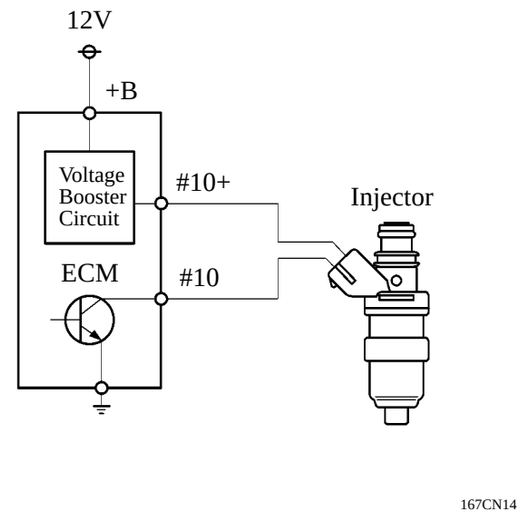
- A delivery pipe with a wide passage that enables a large volume of gas to flow responsively has been adopted to minimize the pressure loss.
- A fuel pressure sensor and a fuel temperature sensor that help correct the fuel injection volume are mounted on the delivery pipe.
- Similar to the fuel shutoff valves for the fuel tank and the fuel pressure regulator, a fuel shutoff valve is provided on the fuel inlet side of the delivery pipe to shut off the supply of fuel when the engine is stopped or during abnormal conditions.
- To discharge the fuel out of the delivery pipe during service, a discharge valve is provided.



9. Injector

For the injection of fuel in the gaseous state, injectors that allow the flow of a large volume of fuel and provide improved sealing performance have been adopted.
These injectors are actuated by the voltage (150V) that has been increased by the voltage booster circuit provided in the ECM.





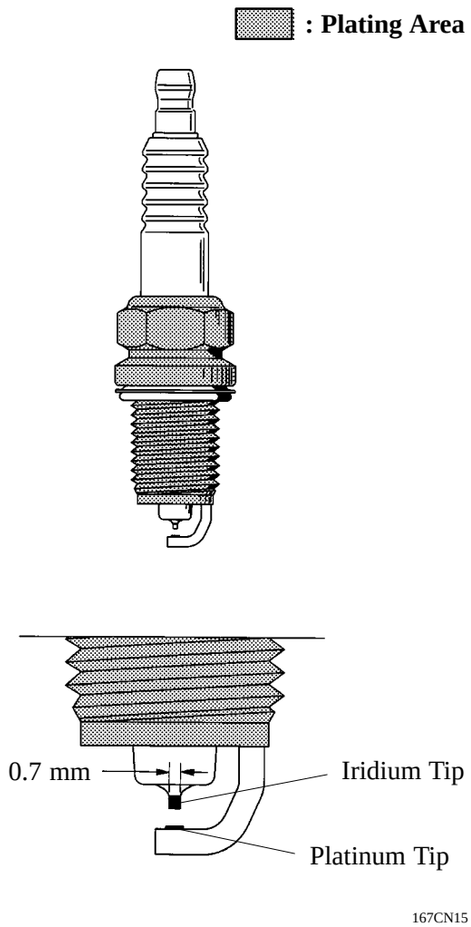
10. Fuel Temperatur and Pressure Sensor for Fuel Gage

A fuel temperature sensor that detects the temperature in the fuel tank is provided on the tank valve assembly. A fuel pressure sensor that detects the pressure in the fuel main pipe is provided immediately upstream of the fuel pressure regulator.

The pressure and the temperature of the fuel are detected by these sensors and are input into the ECM. These values are then converted by the ECM into the equivalent pressure at 21°C to actuate the fuel gauge.

■IGNITION SYSTEM

Because the spark plugs are susceptible to rust when used with natural gas, corrosion-resistant spark plugs have been adopted. These spark plugs are the iridium-tipped spark plugs that have their metallic portion plated.



▶ **Recommended Spark Plug** °

DENSO	SK20R11-G
Plug Gap	1.0 – 1.1 mm (0.0394 – 0.043 in.)

■ENGINE CONTROL SYSTEM

1. General

An engine control system based on the 5S-FE engine has been adopted. The knock sensor has been discontinued because natural gas has a high octane value and is less susceptible to knocking.
The engine control system of 5S-FNE and 5S-FE engines are compared below.

System	Outline	5S-FNE	5S-FE
SFI (Sequential Multiport Fuel Injection)	A D-type SFI system is used, which indirectly detects intake air volume by manifold absolute pressure sensor.	®	®
	The fuel injection system is a sequential multiport fuel injection system.	®	®
ESA (Electronic Spark Advance)	Ignition timing is determined by the ECM based on signals from various sensors.	®	®
	The ECM corrects the ignition timing in response to engine knocking in accordance with the signals received from the knock sensor.	—	®
	Torque control correction during gear shifting had been used to minimize the shift shock.	®	® *1
IAC (Idle Air Control)	A rotary solenoid type IAC valve controls the fast idle and idle speeds.	® (1-Coil Type Built-in Driver)	® (2-Coil Type)
Fuel Pump Control	Fuel pump operation is controlled by signal from the ECM.	—	®
Fuel Cut-Off Control	The fuel shutoff valves for the fuel tank, fuel pressure regulator, and delivery pipe are shut off to stop the supply of fuel when the ignition switch is turned OFF or during abnormal conditions (such as engine stalling, SRS airbag deployed, etc.).	®	—
Oxygen Sensor and Air Fuel Ratio Sensor Heater Control	Maintains the temperature of the oxygen sensor and air fuel ratio sensor at an appropriate level to increase accuracy of detection of the oxygen concentration in the exhaust gas.	®	® *2
EGR Cut-Off Control	Cuts off EGR according to the engine condition to maintain drivability of the vehicle and durability of the EGR components.	®	®
Evaporative Emission Control	The ECM controls the purge flow of evaporative emissions (HC) in the charcoal canister in accordance with engine conditions.	—	®
Air Conditioning Cut-Off Control	By turning the air conditioning compressor ON or OFF in accordance with the engine condition, drivability is maintained.	® *3	® *3
Diagnosis	When the ECM detects a malfunction, the ECM diagnoses and memorized the failed section.	®	®
	The diagnosis system includes a function that detects a malfunction in the evaporative emission control system.	—	®
Fail-Safe	When the ECM detects a malfunction, the ECM stops or controls the engine according to the data already stored in memory.	®	®

*1: Only for Automatic Transaxle Model
*2: Air fuel ratio sensor only for California specification model.
*3: The air conditioning magnet clutch controled by the ECM

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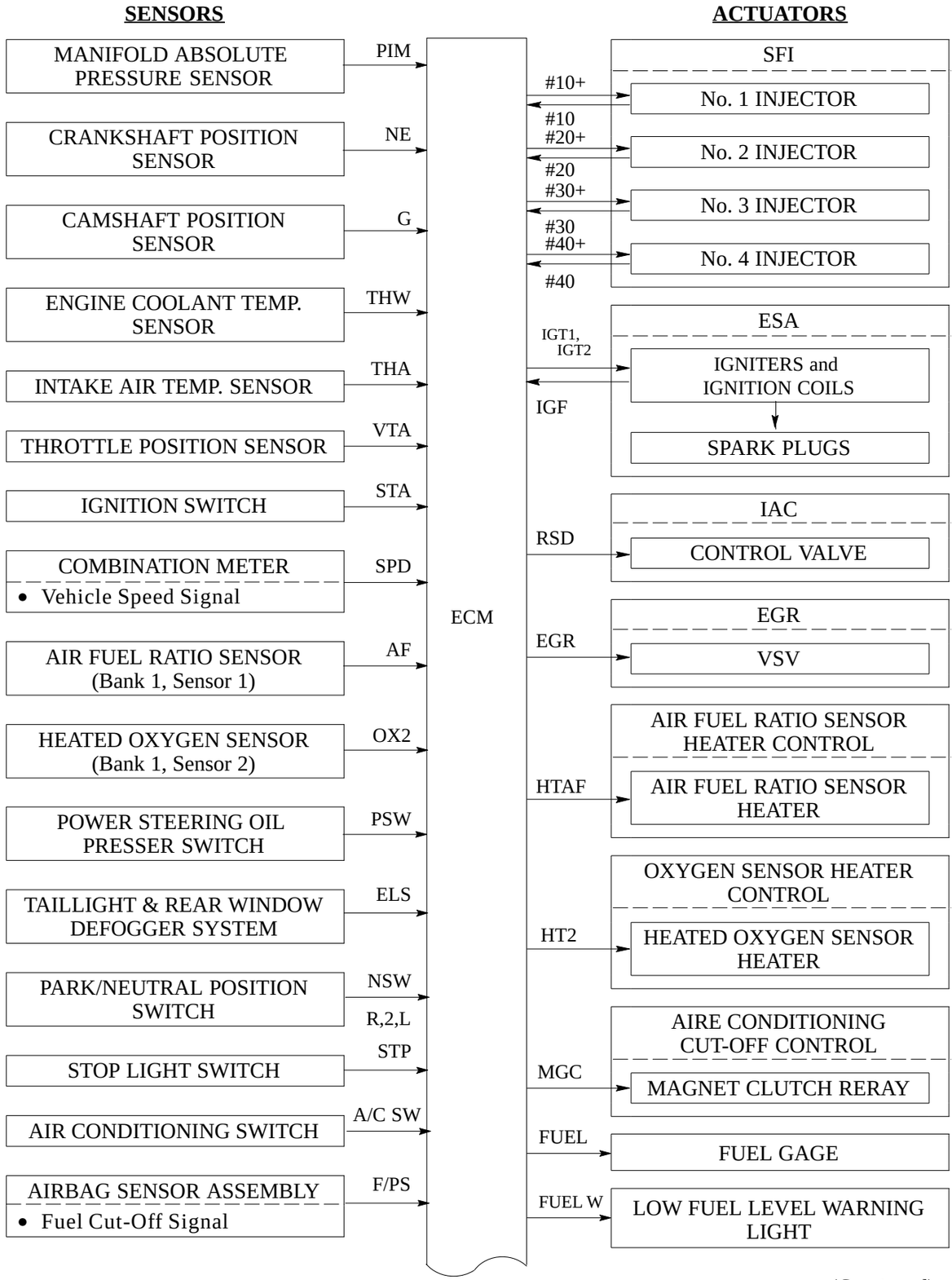
2. Construction

The configuration of the engine control system in the 5S-FNE engine is as shown in the following chart.



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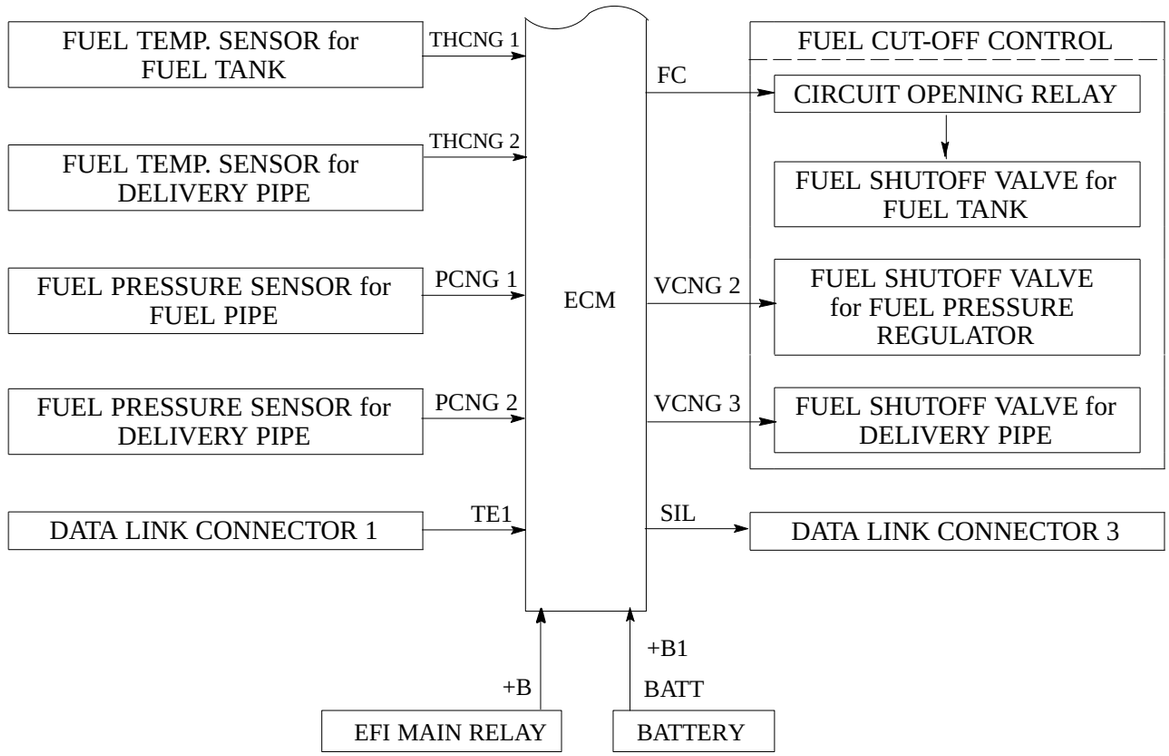
FUEL TEMP. SENSOR for FUEL TANK
THCNG 1
FUEL TEMP. SENSOR for DELIVERY PIPE
THCNG 2
FUEL PRESSURE SENSOR for FUEL PIPE
PCNG 1
FUEL PRESSURE SENSOR for DELIVERY PIPE
PCNG 2
DATA LINK CONNECTOR 1
TE1
ECM
FC
VCNG 2
VCNG 3
SIL
FUEL CUT-OFF CONTROL
CIRCUIT OPENING RELAY
FUEL SHUTOFF VALVE for FUEL TANK
FUEL SHUTOFF VALVE for FUEL PRESSURE REGULATOR
FUEL SHUTOFF VALVE for DELIVERY PIPE
DATA LINK CONNECTOR 3
+B
+B1
BATT
EFI MAIN RELAY
BATTERY

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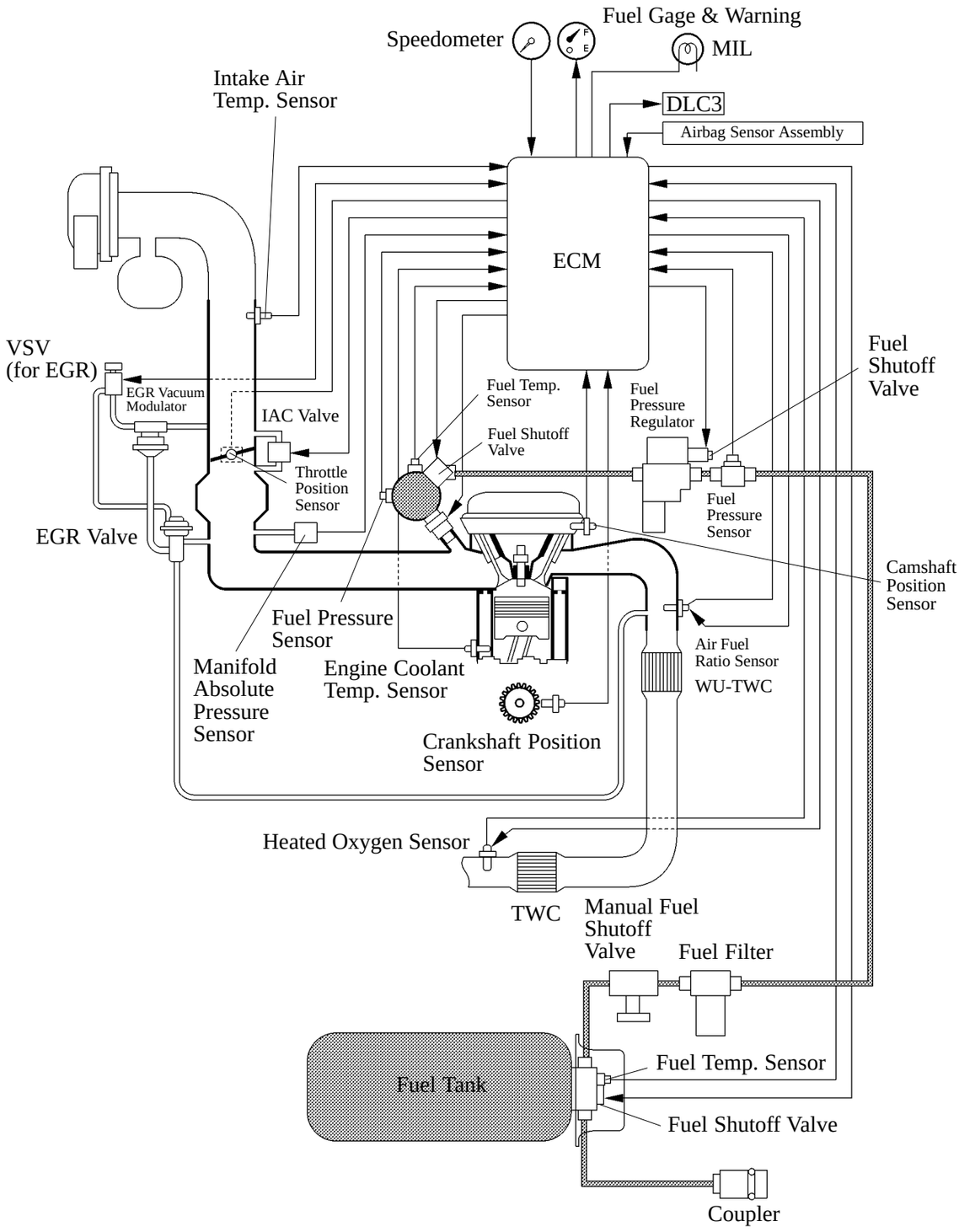
3. Engine Control System Diagram



167CN11

A140E AUTOMATIC TRANSAXLE

■DESCRIPTION

As in the 5S-FE engine model, the A140E automatic transaxle is used on the 5S-FNE engine model. The gear ratio of the differential has been lowered to accommodate the performance of the 5S-FNE engine and to ensure fuel economy.

▶ Specifications °

Item		5S-FNE Engine	5S-FE Engine
Gear Ratio	1st	2.810	†
	2nd	1.549	†
	3rd	1.000	†
	Overdrive	0.706	†
	Reverse	2.296	†
Counter Gear Ratio		0.945	†
Differential Gear Ratio		4.176	3.944
Fluid Capacity liters (US qts, Imp. qts)	Transmission	5.6 (5.9, 4.9)	†
	Differential	1.6 (1.7, 1.4)	†
Fluid Type		ATF D-II or DEXRON®III (DEXRON®II)	†

BRAKES

■DESCRIPTION

The front brake size has been changed.

▶ Specifications °

Item		5S-FNE Engine Model	5S-FE Engine Model
Front Brake	Type	Ventilated Disc	†
	Caliper Type	PE60	PE57
	Wheel Cylinder Diameter mm (in.)	60.33 (2.38)	57.22 (2.25)
	Rotor Size (D × T)* mm (in.)	275 × 28 (10.83 × 1.10)	255 × 28 (10.04 × 1.10)

*: D : Outer Diameter, T : Thickness

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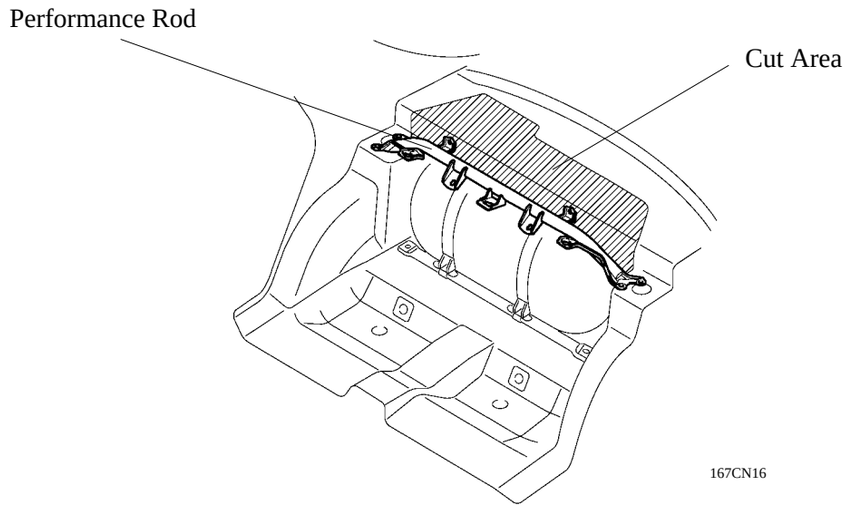
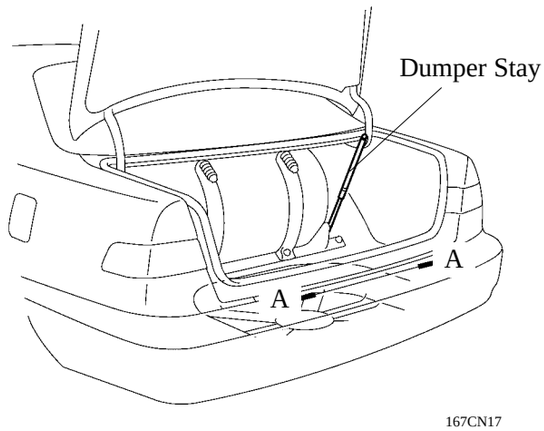
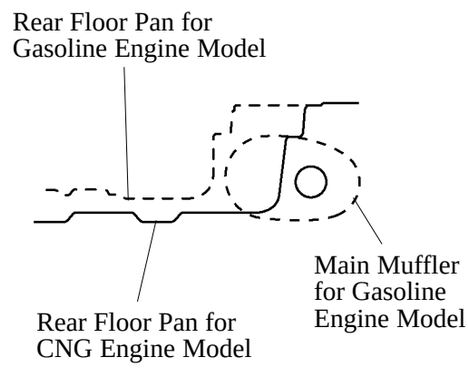
BODY

■DESCRIPTION

- To install the fuel tank in the front area of the luggage compartment, the upper back panel has been cut.
- To prevent reducing the rigidity of the body due to the upper back panel that has been cut out, as well as for installing the fuel tank, rear seat back, and package tray trim, a performance rod is used for joining both rear suspension strut towers.
- The luggage door support has been changed from the torsion bar to the damper stay type.
- To prevent reducing the capacity of the luggage compartment due to the installation of the fuel tank in the luggage compartment, the shape of the rear floor pan has been changed.







A – A Cross Section

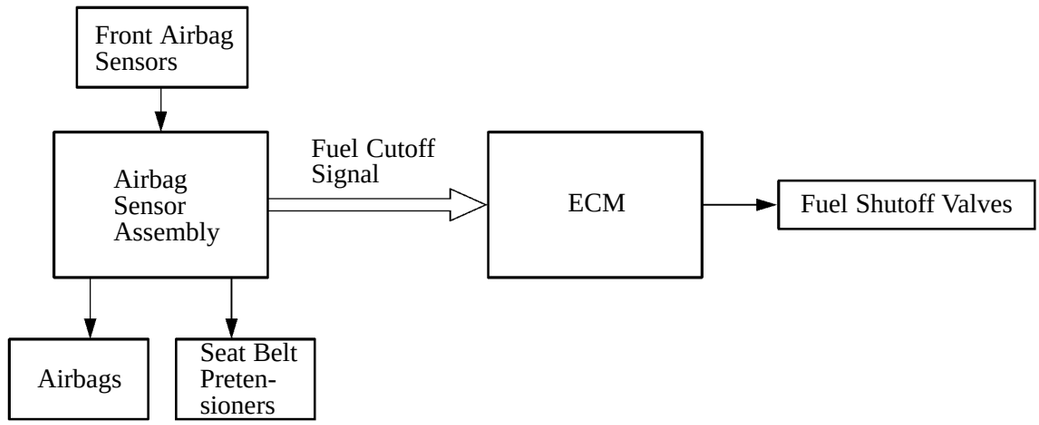
167CN18

SRS AIRBAG

● DESCRIPTION

When the SRS airbag is deployed, a signal to shut off the supply of fuel is output by the airbag sensor assembly to the ECM.

▶ **System Diagram** °



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— MEMO —

3. Appendix

AP

MAJOR TECHNICAL SPECIFICATIONS

Item \ Area			U.S.A.
Body Type			4-Door Sedan
Vehicle Grade			LE
Model Code			SXV23L-AEPNCA
Major Dimensions & Vehicle Weights	Overall	Length mm (in.)	4785 (188.4)
		Width mm (in.)	1780 (70.1)
		Height* mm (in.)	1420 (55.9)
	Wheel Base	mm (in.)	2670 (105.1)
	Tread	Front mm (in.)	1545 (60.8)
		Rear mm (in.)	1520 (59.8)
	Effective Head Room	Front mm (in.)	980 (38.6)
		Rear mm (in.)	940 (37.0)
	Effective Leg Room	Front mm (in.)	1102 (43.4)
		Rear mm (in.)	901 (35.5)
	Shoulder Room	Front mm (in.)	1427 (56.2)
		Rear mm (in.)	1425 (56.1)
	Overhang	Front mm (in.)	970 (38.2)
		Rear mm (in.)	1140 (44.9)
	Min. Running Ground Clearance	mm (in.)	130 (5.1)
	Angle of Approach	degrees	16°
	Angle of Departure	degrees	16°
	Curb Weight	Front kg (lb)	860 (1896)
		Rear kg (lb)	595 (1312)
		Total kg (lb)	1455 (3208)
	Gross Vehicle Weight	Front kg (lb)	970 (2140)
		Rear kg (lb)	950 (2095)
		Total kg (lb)	1920 (4235)
	Fuel Tank Capacity	ℓ (US.gal., Imp. gal)	135 (35.7, 29.2)*1, 43 (11.4. 9.5)*2
	Luggage Compartment Capacity		0.332 m^3 *3, 8.921 ft^3 *4
Performance	Max. Speed	km / h (mph)	180 (112)
	Max. Cruising Speed	km / h (mph)	—
	Acceleration	0 to 100 km/h sec.	—
		0 to 400 m sec.	—
	Max. Permissible Speed	1st Gear km/h (mph)	66 (41)
		2nd Gear km/h (mph)	119 (74)
		3rd Gear km/h (mph)	—
		4th Gear km/h (mph)	—
	Turning Diameter (Outside Front)	Wall to Wall m (ft.)	11.9 (39.0)
		Curb to Curb m (ft.)	11.4 (37.4)
Engine	Engine Type		5S-FNE
	Valve Mechanism		16-Valve, DOHC
	Bore × Stroke	mm (in.)	87.0 × 91.0 (3.43 × 3.58)
	Displacement	cm^3 (cu.in.)	2164 (132.0)
	Compression Ratio		11.0 : 1
	Carburetor Type		SFI
	Research Octane No.	RON	130
	Max. Output (SAE-NET)	kW/rpm (HP@rpm)	88/5200 (118/5200)
	Max. Torque (SAE-NET)	N·m/rpm (lb-ft@rpm)	178/2400 (131/2400)
Engine Electrical	Battery Capacity (5HR)	Voltage & Amp. hr.	12 – 55
	Generator Output	Watts	960
	Starter Output	kW	1.4
Chassis	Clutch Type		—
	Transaxle Type		A140E
	Transmission Gear Ratio	In First	2.810
		In Second	1.549
		In Third	1.000
		In Fourth	0.706
		In Fifth	—
		In Reverse	2.296
	Counter Gear Ratio		0.945
	Differential Gear Ratio (Final)		4.176
	Brake Type	Front	Ventilated Disc
		Rear	L.T. Drum
	Parking Brake Type		Drum
	Brake Booster Type and Size	in.	Tandem 8" + 9"
	Proportioning Valve Type		Dual-P Valve
	Suspension Type	Front	MacPherson Strut
		Rear	MacPherson Strut
	Stabilizer Bar	Front	STD
		Rear	STD
	Steering Gear Type		Rack and Pinion
	Steering Gear Ratio (Overall)		17.4 : 1
	Power Steering Type		Integral Type

*: Unladed Vehicle

*1: Water Volume

*2: Equivalent Gasoline Capacity

*3: VDA

*4: SAE Suitcase