

 **TOYOTA**

2003-2009

**Avensis
ZZT250, ZZT251
AZT250, CDT250**

Service and Repair Manual RM1018E



EXTERIOR APPEARANCE

4-Door Sedan



240MO01



240MO02

5-Door Liftback

240MO03



240MO04

5-Door Wagon

240MO05



240MO06

MODEL CODE

ZZT250 L – A E M N K W

1 2 3 4 5 6 7 8

MO

1	BASIC MODEL CODE
	ZZT250 : With 3ZZ-FE Engine ZZT251 : With 1ZZ-FE Engine AZT250 : With 1AZ-FSE Engine : With 1AZ-FE Engine CDT250: With 1CD-FTV Engine

2	STEERING WHEEL POSITION
	L : Left-Hand Drive R : Right-Hand Drive

3	MODEL NAME
	A : AVENSIS

4	BODY TYPE
	E : 4-Door Sedan L : 5-Door Liftback W : 5-Door Wagon

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

6	GRADE
	N : ENTRY E : MID TECHNICAL G : MID ELEGANT

7	ENGINE SPECIFICATION
	H : DOHC EFI and Direct Injection K : Compact DOHC and EFI Y : Common-Rail Diesel

8	DESTINATION
	W : Europe Blank : General Countries

MODEL LINE-UP

EUROPE						
ENGINE	BODY TYPE	GRADE	TRANSAXLE			
			5-Speed Manual			
			C50	C250	E354	E357
3ZZ-FE	Sedan	ENTRY	ZZT250L(R)-AEMNKKW	—	—	—
		MID TECHNICAL	ZZT250L-AEMEKW	—	—	—
		MID ELEGANT	ZZT250L-AEMGKW	—	—	—
	Liftback	ENTRY	ZZT250L(R)-ALMNKKW	—	—	—
	Wagon	ENTRY	ZZT250L-AWMNKKW	—	—	—
1ZZ-FE	Sedan	ENTRY	—	ZZT251L(R)-AEMNKKW	—	—
		MID TECHNICAL	—	ZZT251L(R)-AEMEKW	—	—
		MID ELEGANT	—	ZZT251L(R)-AEMGKW	—	—
	Liftback	ENTRY	—	ZZT251L(R)-ALMNKKW	—	—
		MID TECHNICAL	—	ZZT251L(R)-ALMEKW	—	—
		MID ELEGANT	—	ZZT251L(R)-ALMGKW	—	—
	Wagon	ENTRY	—	ZZT251L(R)-AWMNKKW	—	—
		MID TECHNICAL	—	ZZT251L(R)-AWMEKW	—	—
		MID ELEGANT	—	ZZT251L(R)-AWMGKW	—	—
1AZ-FE (Unleaded)	Sedan	MID TECHNICAL	—	—	AZT250L-AEMEKW	—
		MID ELEGANT	—	—	AZT250L-AEMGKW	—
1AZ-FSE	Sedan	MID TECHNICAL	—	—	AZT250L(R)-AEMEHW	—
		MID ELEGANT	—	—	AZT250L(R)-AEMGHW	—
	Liftback	MID TECHNICAL	—	—	AZT250L(R)-ALMEHW	—
		MID ELEGANT	—	—	AZT250L(R)-ALMGHW	—
	Wagon	MID TECHNICAL	—	—	AZT250L(R)-AWMEHW	—
		MID ELEGANT	—	—	AZT250L(R)-AWMGHW	—
1CD-FTV	Sedan	ENTRY	—	—	—	CDT250L(R)-AEMNYW
		MID TECHNICAL	—	—	—	CDT250L(R)-AEMEYW
		MID ELEGANT	—	—	—	CDT250L(R)-AEMGYW
	Liftback	ENTRY	—	—	—	CDT250L(R)-ALMNYW
		MID TECHNICAL	—	—	—	CDT250L(R)-ALMEYW
		MID ELEGANT	—	—	—	CDT250L(R)-ALMGYW
	Wagon	ENTRY	—	—	—	CDT250L(R)-AWMNYW
		MID TECHNICAL	—	—	—	CDT250L-AWMEYW
		MID ELEGANT	—	—	—	CDT250L-AWMGYW
ENGINE	BODY TYPE	GRADE	TRANSAXLE			
			4-Speed Automatic			
			U241E		U341E	
1ZZ-FE	Sedan	ENTRY	—	—	ZZT251L(R)-AEPNKKW	—
		MID TECHNICAL	—	—	ZZT251L(R)-AEPEKW	—
		MID ELEGANT	—	—	ZZT251L(R)-AEPGKW	—
	Liftback	ENTRY	—	—	ZZT251L(R)-ALPNKKW	—
		MID TECHNICAL	—	—	ZZT251L(R)-ALPEKW	—
		MID ELEGANT	—	—	ZZT251L(R)-ALPGKW	—
	Wagon	ENTRY	—	—	ZZT251L-AWPNKKW	—
		MID TECHNICAL	—	—	ZZT251L-AWPEKW	—
		MID ELEGANT	—	—	ZZT251L-AWPGKW	—
1AZ-FE (Unleaded)	Sedan	MID TECHNICAL	AZT250L-AEPEKW	—	—	—
		MID ELEGANT	AZT250L-AEPGKW	—	—	—
	Wagon	MID TECHNICAL	AZT250L-AWPEKW	—	—	—
		MID ELEGANT	AZT250L-AWPGKW	—	—	—
1AZ-FSE	Sedan	MID TECHNICAL	AZT250L(R)-AEPEHW	—	—	—
		MID ELEGANT	AZT250L(R)-AEPGHW	—	—	—
	Liftback	MID TECHNICAL	AZT250L(R)-ALPEHW	—	—	—
		MID ELEGANT	AZT250L(R)-ALPGHW	—	—	—
	Wagon	MID TECHNICAL	AZT250L(R)-AWPEHW	—	—	—
		MID ELEGANT	AZT250L(R)-AWPGHW	—	—	—
GENERAL COUNTRIES						
ENGINE	BODY TYPE	GRADE	TRANSAXLE			
			5-Speed Manual		4-Speed Automatic	
			E354		U241E	
1AZ-FE (Leaded)	Sedan	ENTRY	AZT250L-AEMNK		AZT250L(R)-AEPNK	

EXTERIOR

Front View

- The front view is dynamically expressive, with innovative headlights and a front bumper design that has a sense of stability with upper and lower thickness.
- The headlight low beams feature projectors and have an innovative shape.



Sedan and Liftback Models

240MO07



240MO09



Wagon Model

240MO08

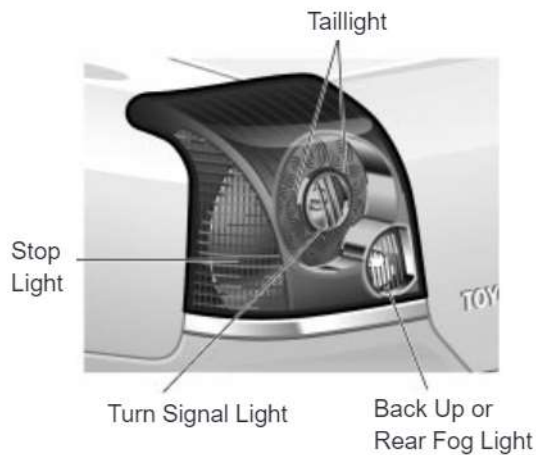
Rear View

- The rear combination lens features an elegant, innovative shape.
- The luggage compartment door and back door were given a greater sense of volume for a high-quality feel.

4-Door Sedan



240MO10

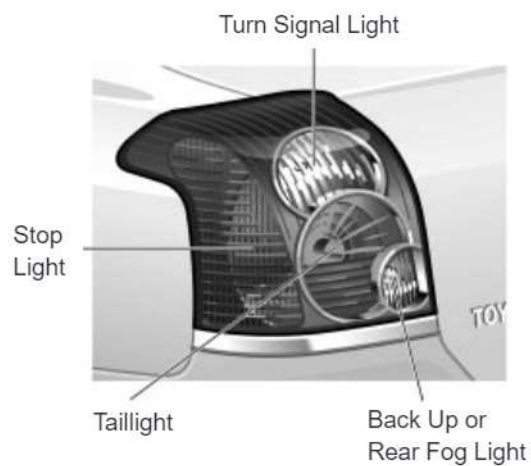


240MO11

5-Door Liftback



240MO12

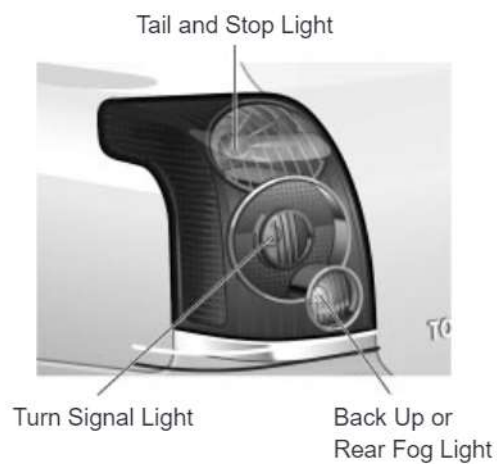


240MO13

5-Door Wagon



240MO14



240MO15

Side View

- The side view communicates a sense of balance, with a large cabin structure that expresses a sense of stability and elegance.
- The side view has an elegant and dynamic shape thanks to two character lines.

4-Door Sedan



240MO16

5-Door Liftback



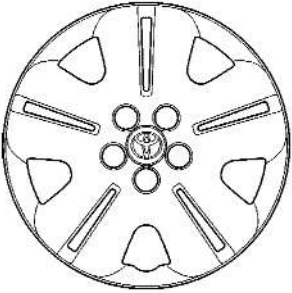
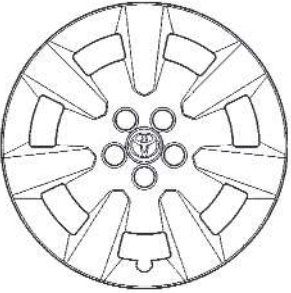
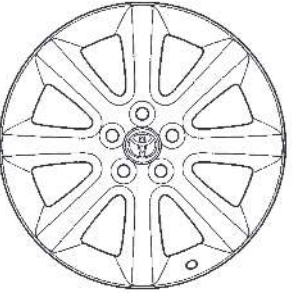
240MO17

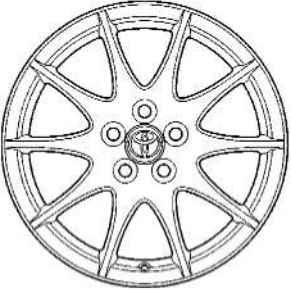
5-Door Wagon



240MO18

Tire & Disc Wheel

Tire Size		195/65 R15	205/55 R16	
Disc Wheel	Size	15 x 6 J	16 x 6 1/2 J	16 x 6 1/2 JJ
	Material	Steel	Steel	Aluminum
P. C. D.* [mm] (in.)		100 (3.9)		
Off Set [mm] (in.)		39 (1.5)	45 (1.8)	
Full Cap/Wheel Design				
		240MO19	240MO20	240MO21
Engine	1ZZ-FE & 3ZZ-FE	Standard	Option	Option
	1AZ-FSE	—	Standard	Option
	1AZ-FE	Standard	Option	Option
	1CD-FTV	—	Standard	Option

Tire Size		205/55 R16	215/45 R17
Disc Wheel	Size	16 x 6 1/2 JJ	17 x 7 JJ
	Material	Aluminum	
P. C. D.* [mm] (in.)		100 (3.9)	
Off Set [mm] (in.)		45 (1.8)	
Full Cap/Wheel Design			
		240MO22	240MO23
Engine	1ZZ-FE & 3ZZ-FE	Option	—
	1AZ-FSE	Option	Option
	1AZ-FE	Option	Option (Except General Countries Models)
	1CD-FTV	Option	—

*: Pitch Circle Diameter

INTERIOR

MO

**Sedan Model**

240MO24

**Liftback Model**

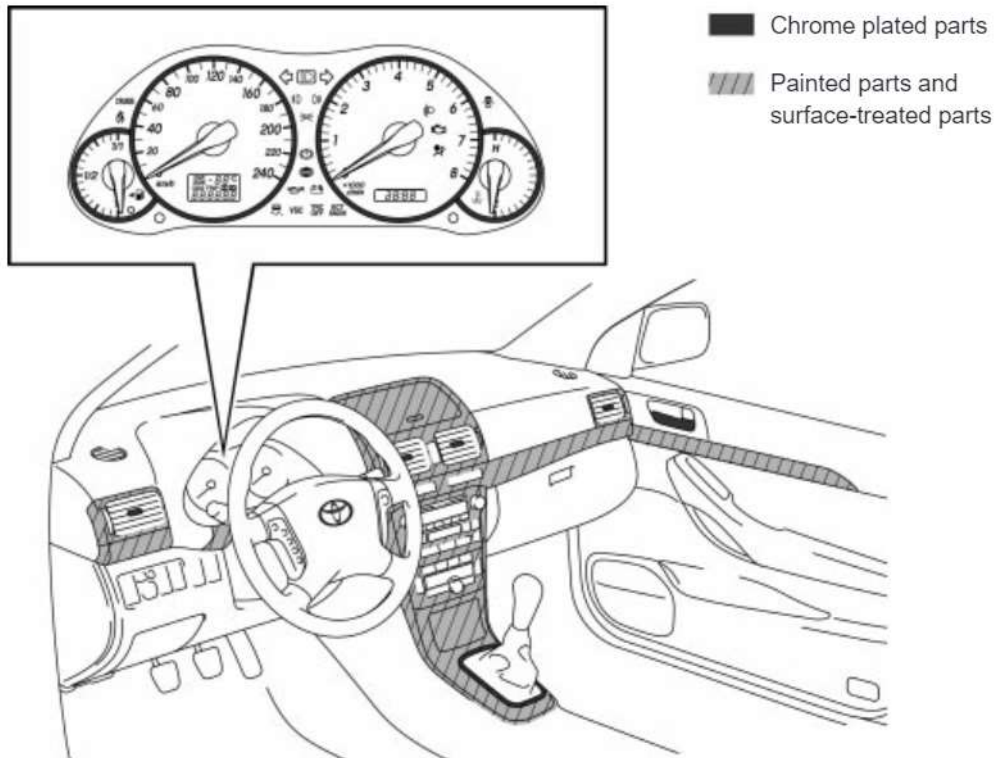
240MO25

**Wagon Model**

240MO26

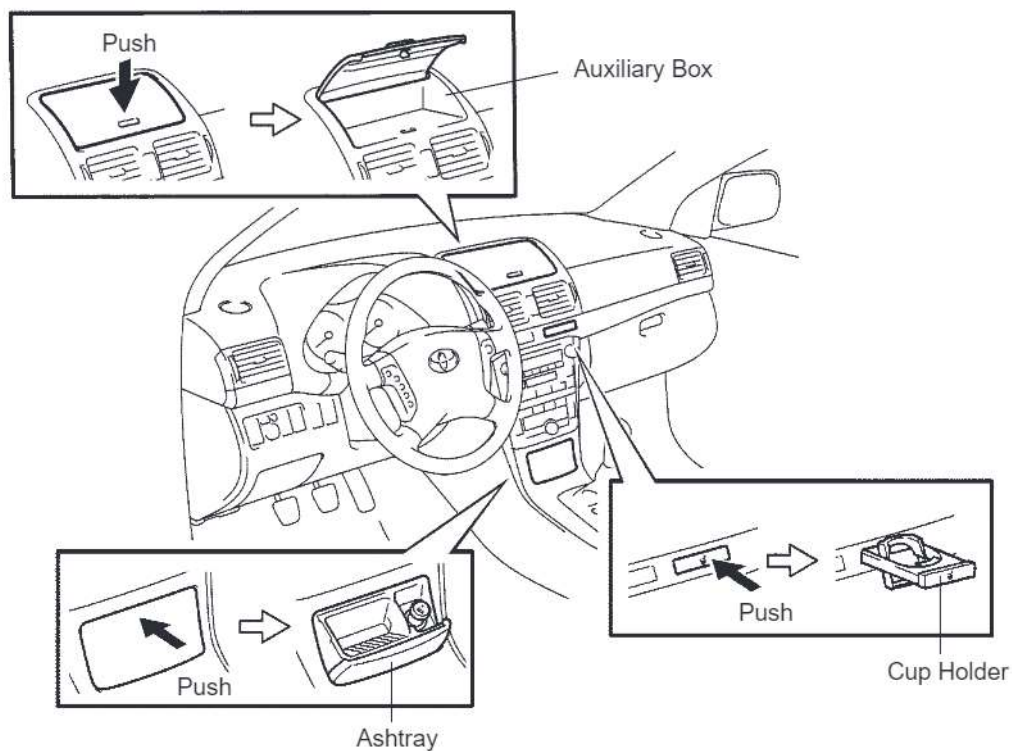
Instrument Panel

- The instrument panel's design, composed of smooth curving lines, expresses the cabin's spaciousness.
- The use of painted, surface-treated, and chrome plated parts, as well as the greatest possible minimization of openings and break lines, express a sense of quality.



240MO28

- The instrument panel features an easy-to-use auxiliary box, cup holder, and front ashtray. (Auxiliary box: available for ENTRY grade models only)

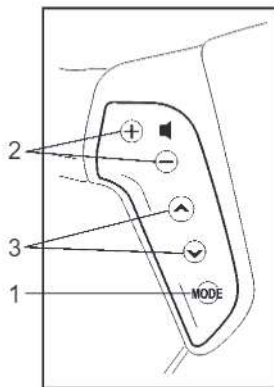


240MO27

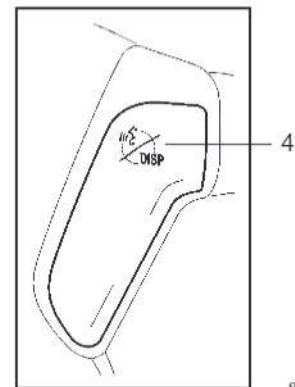
Steering Wheel

- ENTRY grade models feature a urethane 4-spoke type steering wheel, and MID TECHNICAL and MID ELEGANT grade models feature a leather 4-spoke type steering wheel.
- Europe models feature a steering pad switch that enables drivers to operate the audio system, switch to trip information display, and turn the navigation system's voice recognition function on and off without removing their hands from the steering wheel.

Steering Pad Switch



Steering Pad Switch



240MO31

Steering Pad Switch Function

System		Button	Press for a short period	Press for a long period
Audio	Mode	1	Switch AM/FM of radio or TAPE or CD	Switch to OFF
	Volume	2	UP/DOWN for audio system volume	
	Seek	Radio	Channel UP/DOWN	UP/DOWN to select a station
		Tape	Search FF/REW	FF/REW
		CD	Track UP/DOWN	Disc UP/DOWN
Trip Information		4	Switching trip information display	In the case of average vehicle speed mode or driving distance after engine start mode, reset each information
Navigation		4	Voice recognition ON/OFF	—

Seat

- The seat features a high-quality finish with an elegant stitch.
- Leather seats are available as an option for MID TECHNICAL and MID ELEGANT grade with the 1AZ-FSE or 1CD-FTV engine models.

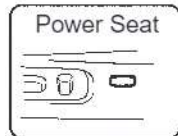


240MO34

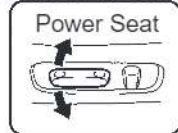
Front Seat

- Power seats are available as a set option with leather seats.
- The adjustment lever of manual seats now features a ratchet mechanism for ease of operation.
- A seat heater is available as an option for Europe LHD models.

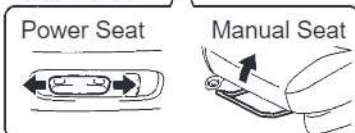
Power Lumber Support



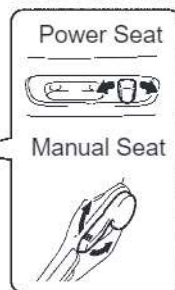
Cushion Front Tilt



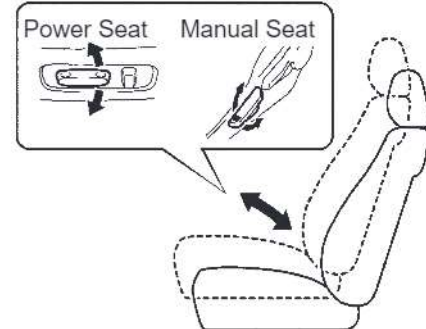
Seat Slide



Seat Reclining



Vertical Lifter



240MO38

240MO37

Front Seat Function

Item	Manual Seat		Power Seat	
	Driver's	Passenger's	Driver's	Passenger's
Seat Slide	240 mm: 15 mm x 16-Steps		240 mm: Step Less	
Seat Reclining	48°: Step Less (Lever 1 operation: Max. 1°)		48°: Step Less	
Vertical Lifter	45 mm: Step Less (Lever 1 operation: Max. 2.5 mm)	—	50 mm: Step Less	—
Cushion Front Tilt	—	—	34 mm: Step Less	—
Power Lumber Support	—	—	Standard	—
Headrest Vertical Adjuster	60 mm: 15 mm x 4-Steps			
Headrest Swing Adjuster	18.5°: Standard (MID TECHNICAL and MID ELEGANT grade for Europe and General Countries)			
Seat Heater	Option: LHD for Europe			

Rear Seat

- ENTRY grade sedans feature a fixed seat; other models feature seats with a 60:40 separate seat back.
- Liftback and wagon models feature a 60:40 separate seat.



240MO40

Fixed Seat

240MO41

60:40 Separate Seat Back

240MO43

60:40 Separate Seat

- CRS (Child Restraint System) ISO-FIX bar and CRS tether anchor bracket for securing child seats have been provided on all the vehicle.

CRS Tether Anchor Bracket

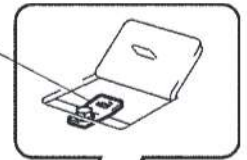


240MO44

CRS ISO-FIX Bar

Sedan Model

CRS Tether Anchor Bracket



240MO45

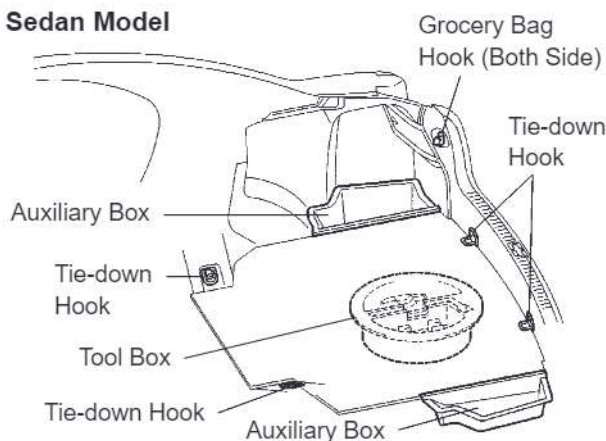
CRS ISO-FIX Bar

Liftback and Wagon Model

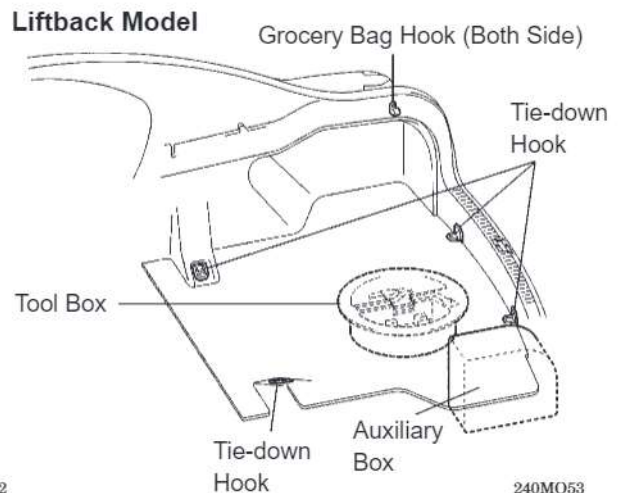
Luggage

4-Door Sedan and 5-Door Liftback

The luggage room features an auxiliary box, grocery bag hook, and tie-down hook for ease of use.

Sedan Model

240MO52

Liftback Model

240MO53

Rear Seat

- ENTRY grade sedans feature a fixed seat; other models feature seats with a 60:40 separate seat back.
- Liftback and wagon models feature a 60:40 separate seat.



240MO40

Fixed Seat

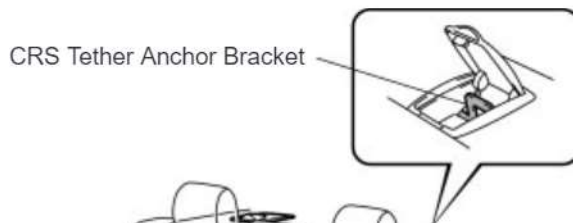
240MO41

60:40 Separate Seat Back

240MO43

60:40 Separate Seat

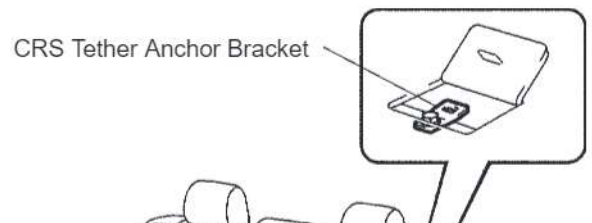
- CRS (Child Restraint System) ISO-FIX bar and CRS tether anchor bracket for securing child seats have been provided on all the vehicle.



CRS Tether Anchor Bracket

240MO44

CRS ISO-FIX Bar

Sedan Model

CRS Tether Anchor Bracket

240MO45

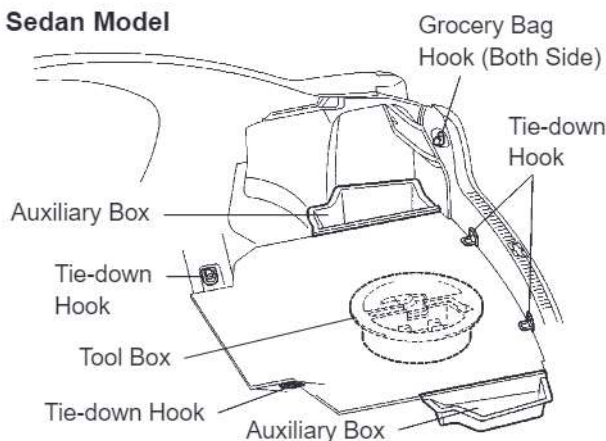
CRS ISO-FIX Bar

Liftback and Wagon Model

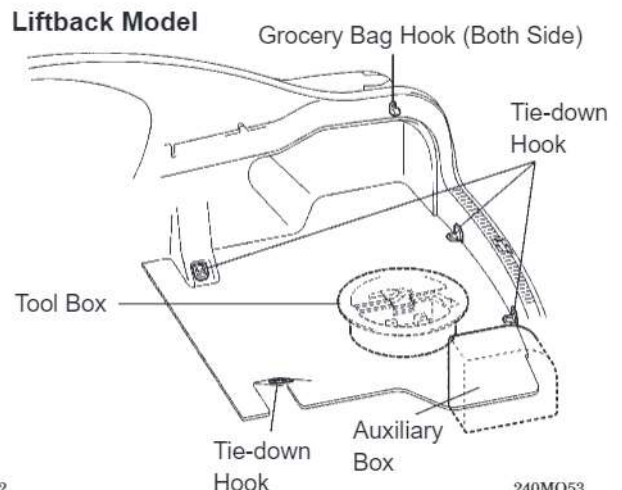
Luggage

4-Door Sedan and 5-Door Liftback

The luggage room features an auxiliary box, grocery bag hook, and tie-down hook for ease of use.

Sedan Model

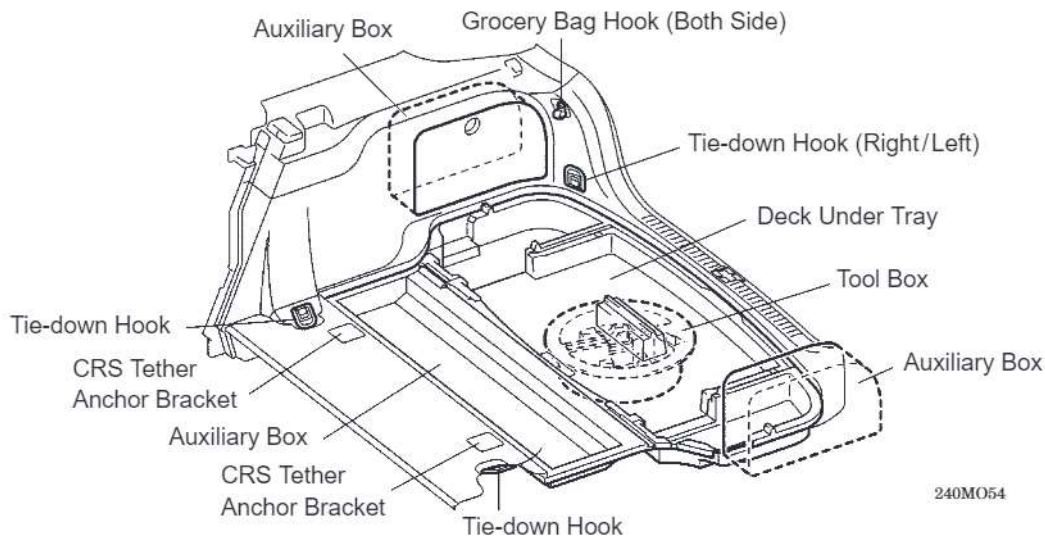
240MO52

Liftback Model

240MO53

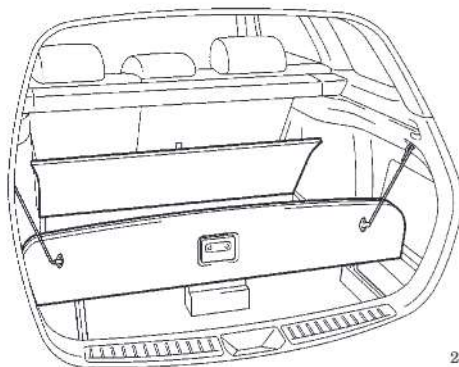
5-Door Wagon

The luggage room features an abundance of items for ease of use.

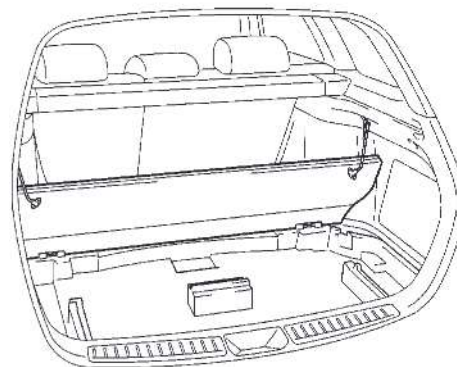


Deck Under Tray

The deck under tray, in combination with a folding deck board, makes many uses possible.



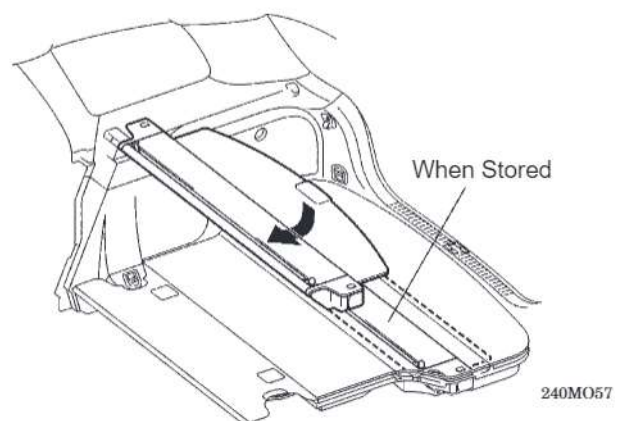
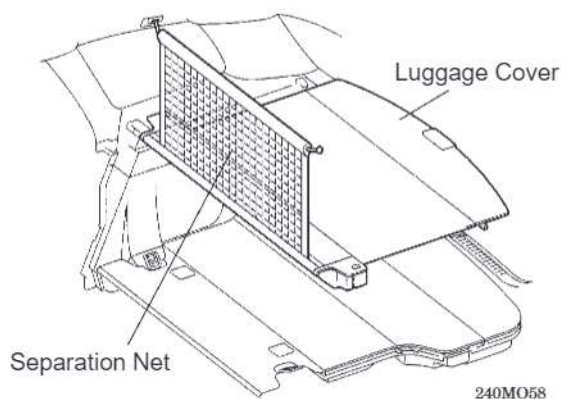
Deck board folded once



Deck board folded twice

Luggage Cover

- A luggage cover that can be removed and reattached easily is standard equipment on 1AZ-FE engine models.
- A luggage cover that incorporates a separation net that can divide the cabin from the luggage room is available as an option for 1AZ-FE engine models.
- After removal, the luggage cover can be stored in the deck under tray.



EQUIPMENT

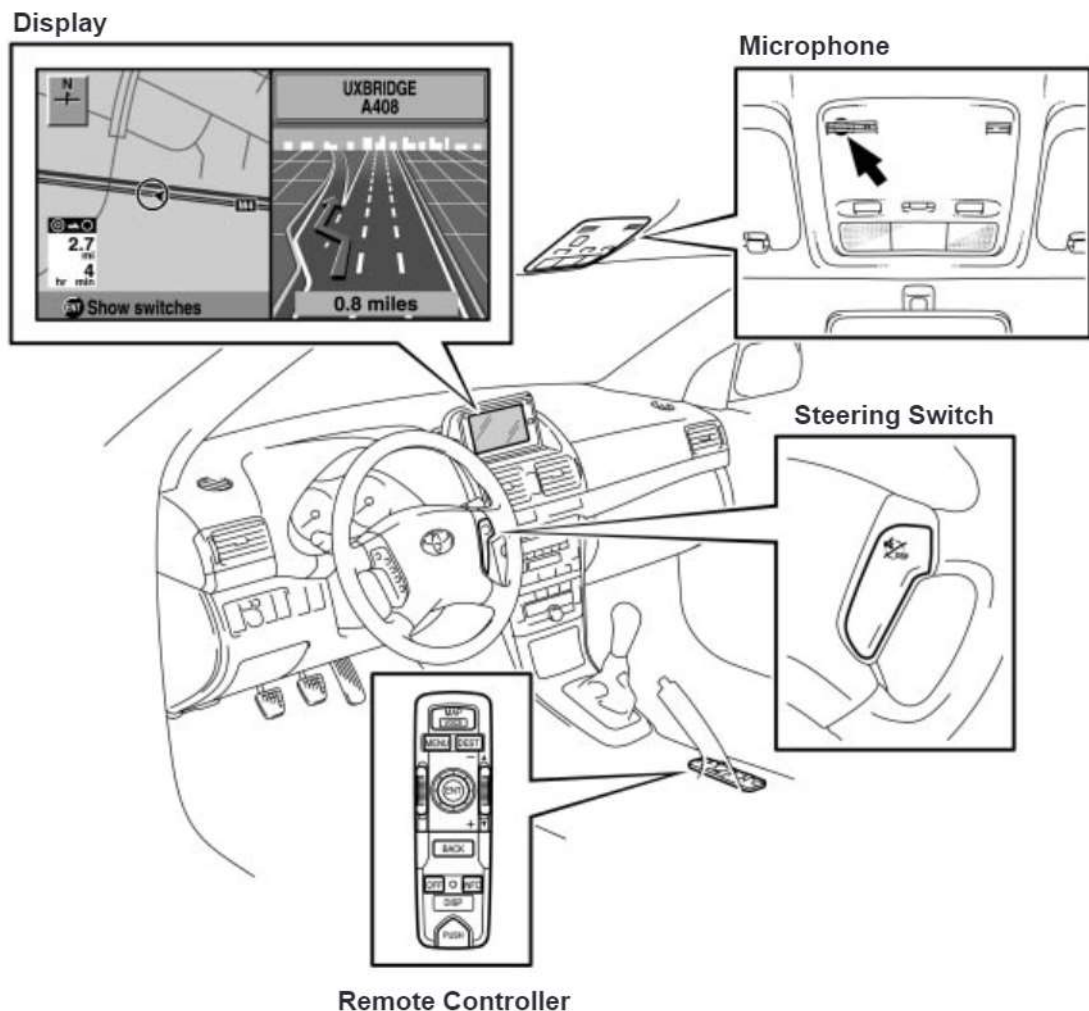
Multi Display

A multi display is available as an option for MID TECHNICAL and MID ELEGANT grade Europe models.

Navigation and trip information can be displayed on the multi display.

Navigation System

- Through the use of the GPS (Global Positioning System) and map data in a DVD (Digital Versatile Disc), the navigation system analyzes the position of the vehicle and indicates that position on the map that is displayed on this screen.
- The navigation system employs a voice recognition function with a voice recognition microphone installed in the overhead console. The voice recognition function can be turned on and off using the steering switch on the steering wheel.
- The navigation system is operated using a remote controller.



240MO59

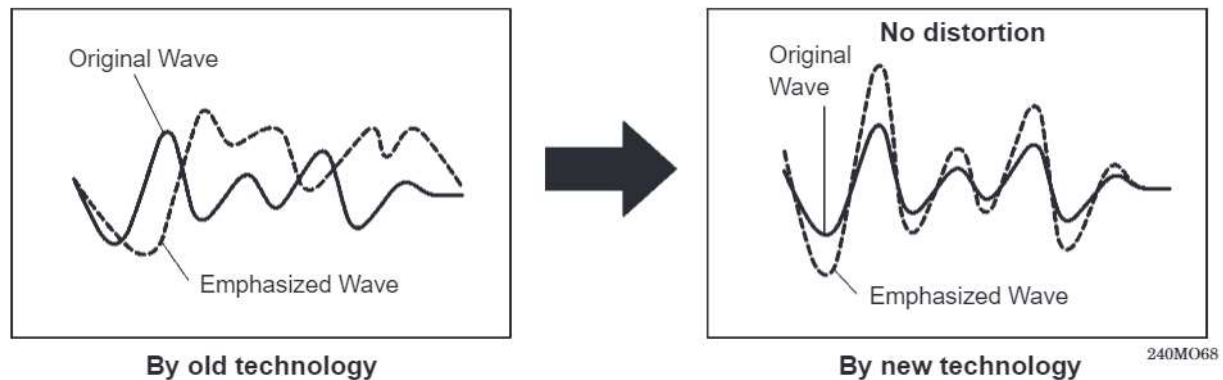
Trip Information

Average fuel consumption after refueling, momentary fuel consumption, average vehicle speed, driving distance after engine start, and driving range can be displayed.

Audio System

- The audio system has a head unit with three built-in functions: CD player, cassette player, and radio.
- By adopting new digital sound processing program, this unit can emphasize sound faithfully without phase distortion, and produce extremely clear and powerful sound.

Figure for image



Head Unit Specifications

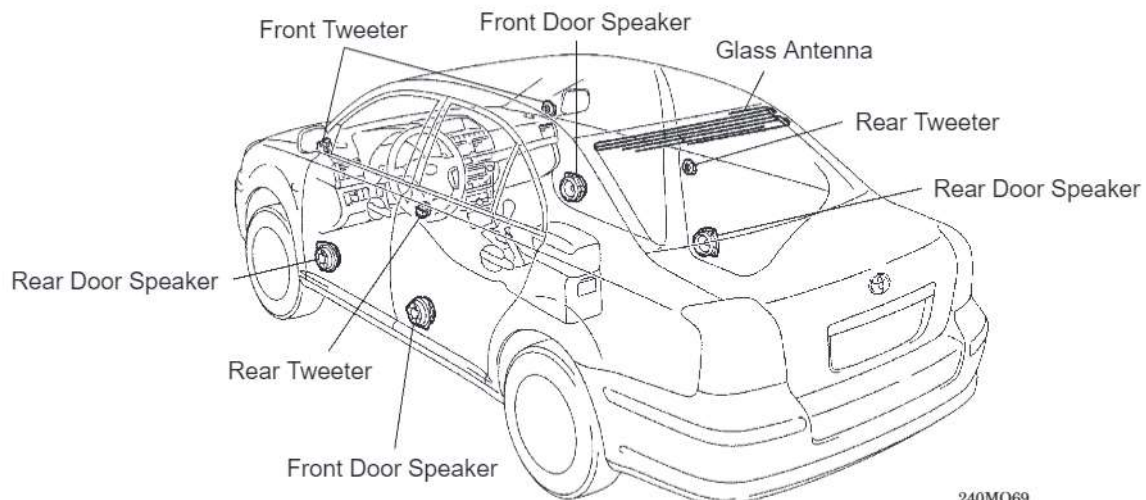
Design	Specifications	Destination
240MO66	• AM/FM Tuner • Cassette Player • CD Player • DSP • Amplifier Power: 40W x 4-Ch. • 8-speaker System • RDS function • Manufacturer: Panasonic	Europe
240MO67	• AM/FM Tuner • Cassette Player • CD Player • DSP • Amplifier Power: 40W x 4-Ch. • 8-speaker System • Manufacturer: Panasonic	General Countries

Speaker's Specification

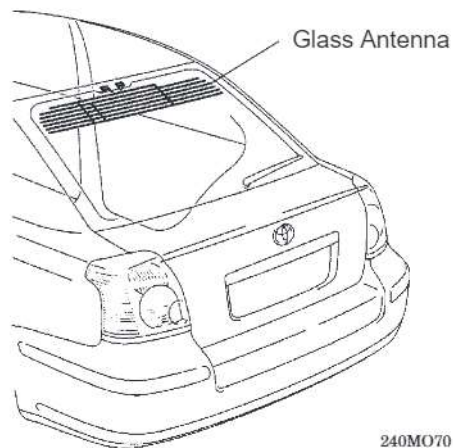
An 8-speaker system with both tweeters and full range speakers is housed in the front and rear doors.

Speaker		Caliber	Impedance
Front Door	Tweeter	2.5 cm (1.0 in.)	4 Ω
	Full Range	16.0 cm (6.3 in.)	4 Ω
Rear Door	Tweeter	2.5 cm (1.0 in.)	4 Ω
	Full Range	14.0 cm (5.5 in.)	4 Ω

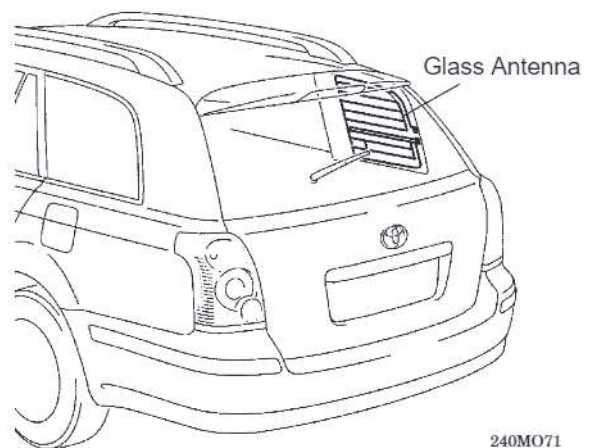
Location



Sedan Model



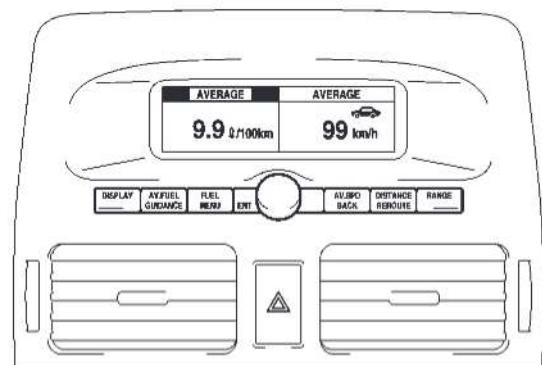
Liftback Model



Wagon Model

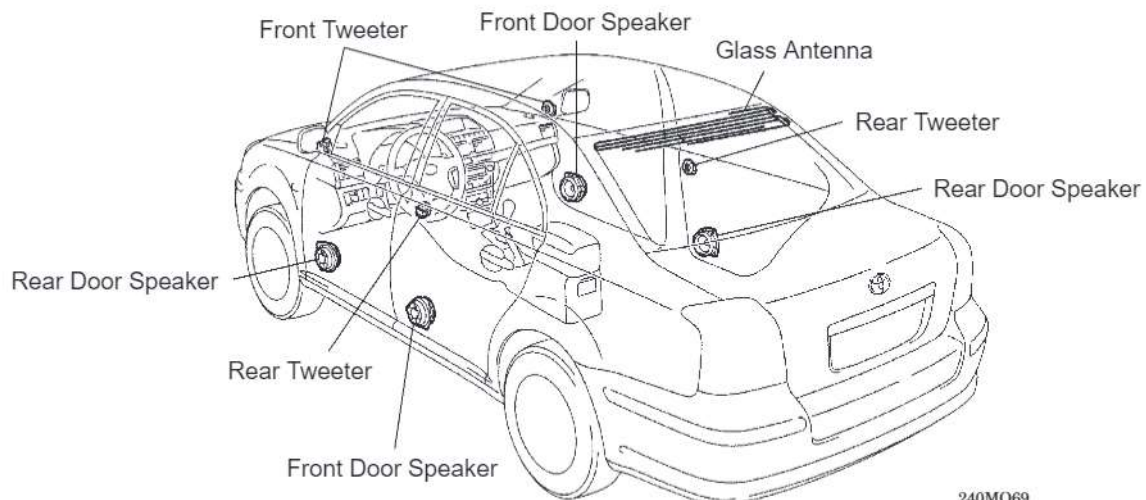
Multi-information Display

- A multi-information display is standard equipment on MID TECHNICAL and MID ELEGANT grade Europe models and available as an option for ENTRY grade models.
- Average fuel consumption after refueling, momentary fuel consumption, average vehicle speed, driving distance after engine start, and driving range can be displayed.
- The vehicle information screens can be switched and the average vehicle speed or driving distance after engine start can be reset using the steering pad switch.

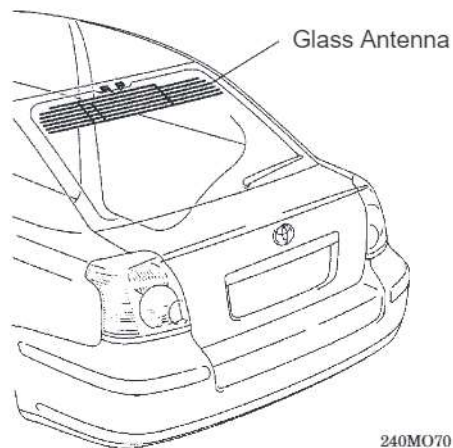


240MO72

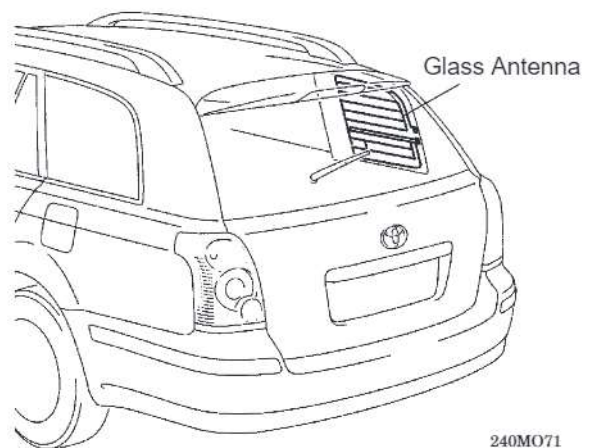
Location



Sedan Model



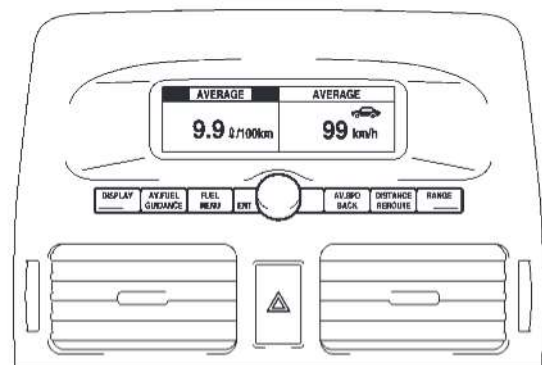
Liftback Model



Wagon Model

Multi-information Display

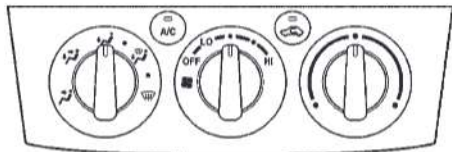
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240MO72

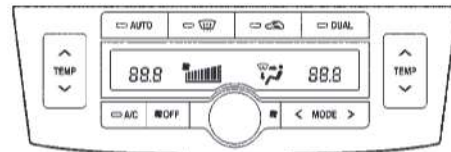
Air Conditioner System

- A manual air conditioner is standard equipment on ENTRY grade models and an automatic air conditioner on MID TECHNICAL and MID ELEGANT grade models.



240MO95

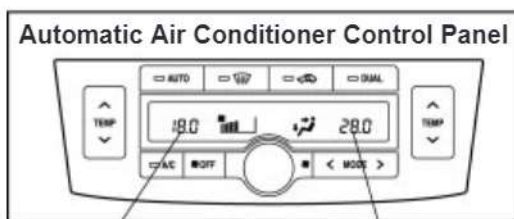
**Manual Air Conditioner Control Panel
for LHD model**



240MO96

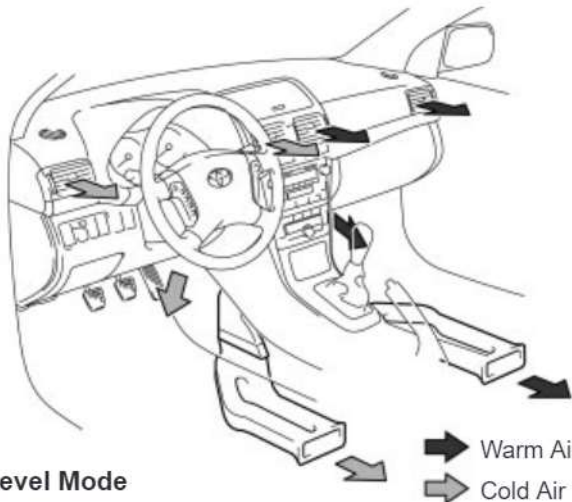
**Automatic Air Conditioner Control Panel
for LHD model**

- The automatic air conditioner employs a left/right independent temperature control system.



Driver Side
Temperature

Front Passenger
Side Temperature



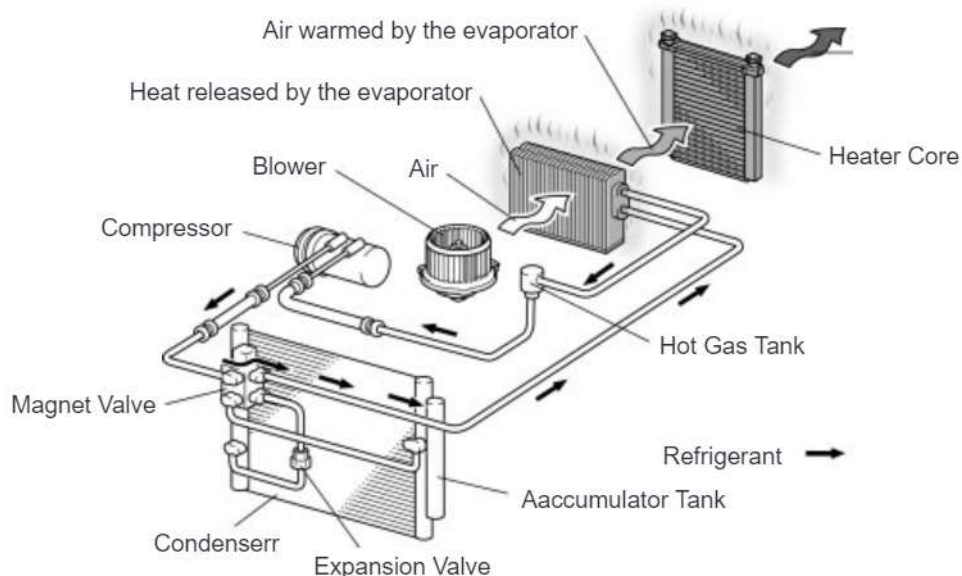
When BI-level Mode

➡ Warm Air
➡ Cold Air

240MO97

Power Heater System

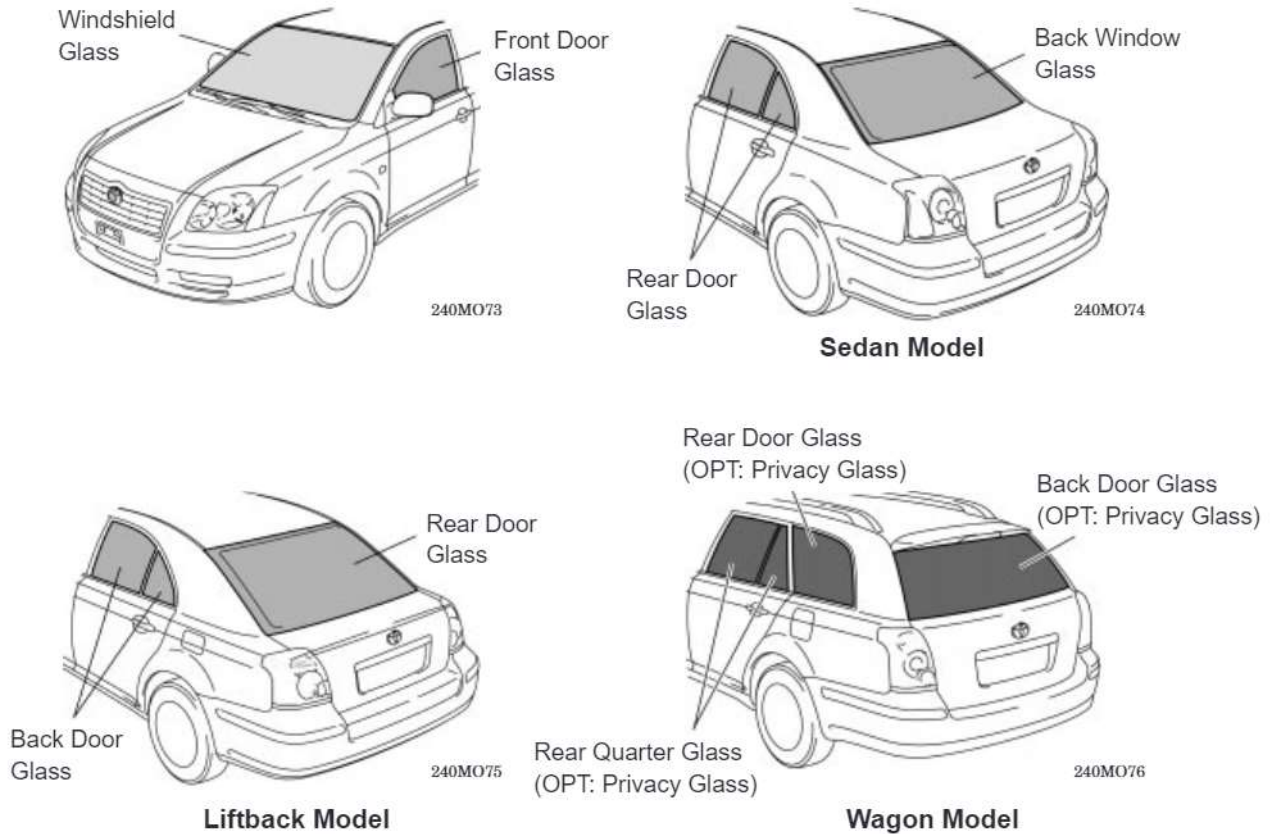
- 1CD-FTV engine models feature three power heater systems: PTC, hot-gas, and combustion.
- The hot-gas heater was newly developed to enhance the heater performance of the diesel engine.
- The hot-gas heater features an orifice, magnetic valve, and hot-gas tank added to the air conditioner components. Refrigerant raised to a high temperature and pressure by the compressor is guided to the evaporator and the heat is released.



240MO98

Windshield & Door Glass

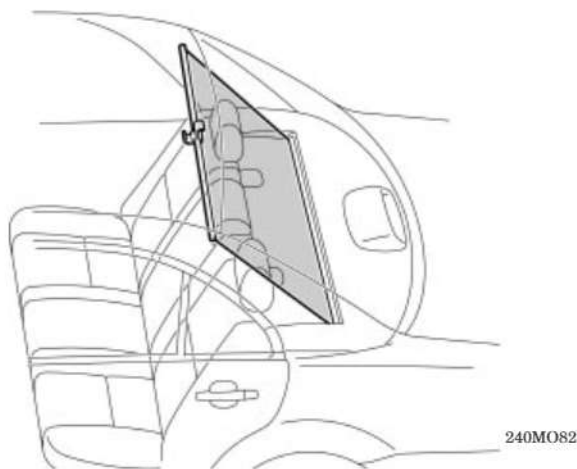
Dark gray privacy glass is available as an option for the rear door glass, rear quarter glass, and back door glass of wagon models.



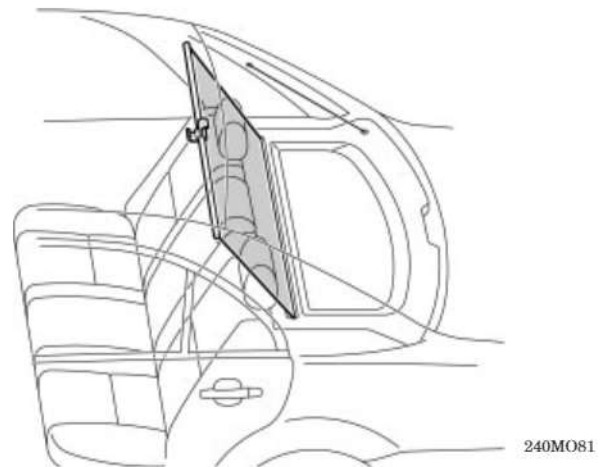
Glass Portion	Provided	Glass Type	UV Reduction Rate (%) (as reference)	Visible Light Penetration (%) (as reference)
Windshield	Standard	Green Laminated	100 %	70 % Min.
Front Door	Standard	Green	82 %	70 % Min.
Rear Door	Standard	Green	82 %	70 % Min.
	Option (Wagon only)	Privacy	96 %	24 %
Rear Quarter (Wagon only)	Standard	Green	82 %	—
	Option	Privacy	96 %	—
Back Window or Back Door	Standard	Green	78 %	70 % Min.
	Option (Wagon only)	Privacy	96 %	20 %

Rear Sunshade

A hand-operated rear sun shade is available as an option for Europe sedans and liftback models and is standard equipment on General Countries sedan models.



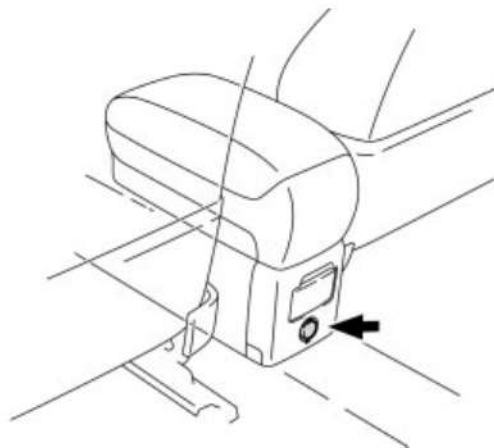
Sedan Model



Liftback Model

Power Outlet

The back surface of the console is equipped with a 12V-120W power outlet for MID TECHNICAL and MID ELEGANT grade only.



240MO91

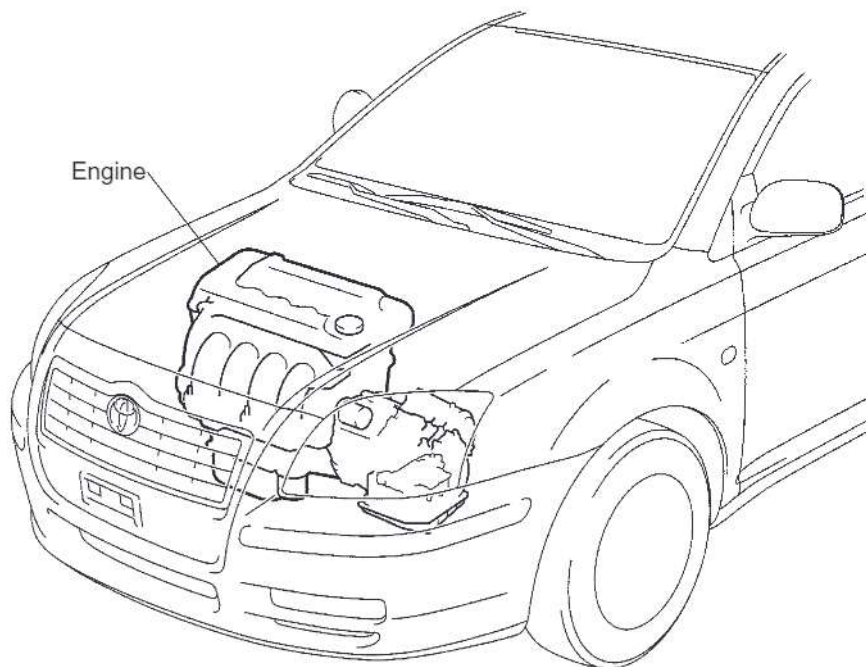
Wiper System

- A wiper system with raindrop sensing function is standard equipment on MID TECHNICAL and MID ELEGANT grade models.
- Raindrop sensing function: When the wiper switch is in the auto position, a rain sensor built into the windshield glass detects the amount of raindrops and causes the wipers to operate automatically at the optimum timing for that amount.

PERFORMANCE

Power Train

Engine



240MO100

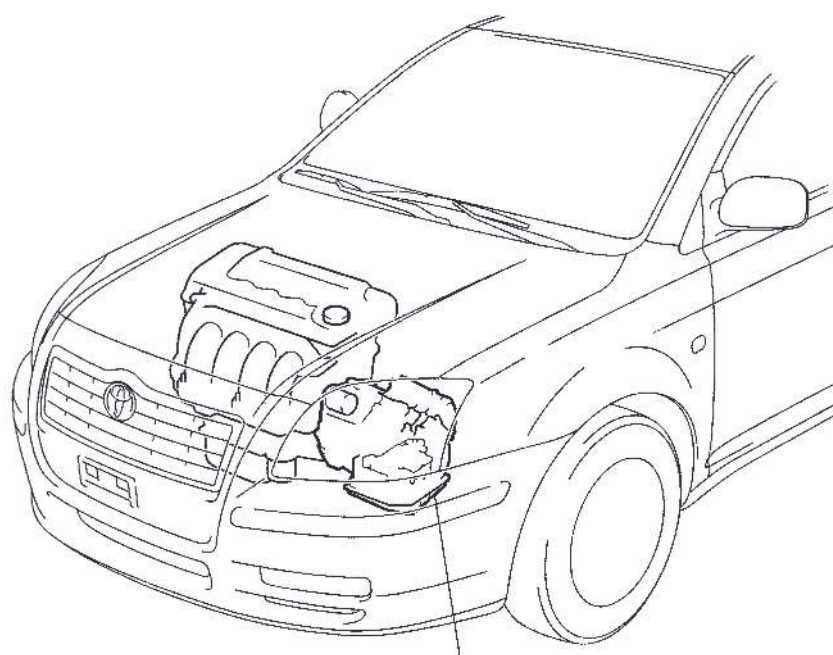
Type	1ZZ-FE	3ZZ-FE
Valve Mechanism	16-Valve DOHC with VVT-i	16-Valve DOHC with VVT-i
Displacement	1794 cm ³ (109.5 cu. in.)	1598 cm ³ (97.5 cu. in.)
Max. Output	95 kW/6000 rpm	81 kW/6000 rpm
Max. Torque	170 N·m/4200 rpm	150 N·m/3800 rpm

Type	1AZ-FE (Unleaded)	1AZ-FE (Leaded)
Valve Mechanism	16-Valve DOHC with VVT-i	16-Valve DOHC
Displacement	1998 cm ³ (121.9 cu. in.)	1998 cm ³ (121.9 cu. in.)
Max. Output	108 kW/6000 rpm	100 kW/5600 rpm
Max. Torque	192 N·m/4000 rpm	190 N·m/4000 rpm

Type	1AZ-FSE (D-4*1)	1CD-FTV (D-4D*2)
Valve Mechanism	16-Valve DOHC with VVT-i	16-Valve DOHC
Displacement	1998 cm ³ (121.9 cu. in.)	1995 cm ³ (121.7 cu. in.)
Max. Output	108 kW/5700 rpm	85 kW/3600 rpm
Max. Torque	196 N·m/4000 rpm	280 N·m/2000 – 2200 rpm

*1: Direct injection 4-stroke gasoline engine

*2: Direct injection 4-stroke common-rail diesel engine

Transaxle

240MO101

Transaxle

Manual Transaxle

Type	C50	C250	E354	E357
Combination with Engine	3ZZ-FE	1ZZ-FE	1AZ-FE & 1AZ-FSE	1CD-FTV
Gear Ratio 1st	3.545	3.545	3.538	3.538
2nd	1.904	1.904	2.045	1.913
3rd	1.310	1.310	1.333	1.258
4th	0.969	1.031	1.028	0.918
5th	0.815	0.815	0.820	0.690
Reverse	3.250	3.250	3.583	3.583

Automatic Transaxle

- The new Avensis 4-speed automatic transaxle (Super ECT [Electronic Controlled Transaxle]) employs multi mode automatic transaxle.
- Multi mode automatic transaxle enables shifting that feels like manual when up (+) or down (-) in the "S" position.

Type	U241E	U341E
Combination with Engine	1AZ-FE & 1AZ-FSE	1ZZ-FE
Gear Ratio 1st	3.943	2.847
2nd	2.197	1.552
3rd	1.413	1.000
4th	1.020	0.700
Reverse	3.145	2.343

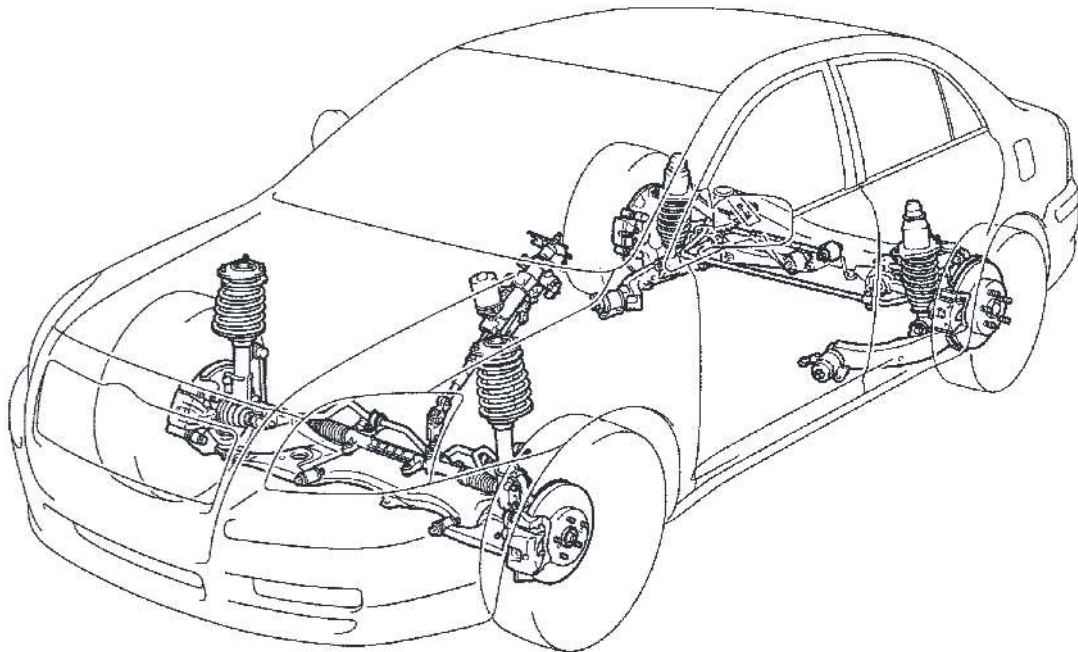
Chassis

Front Suspension

Type	MacPherson Strut Type Independent Suspension
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Rear Suspension

Type	Double Wishbone Type Suspension
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240MO99

EPS Model

Steering

Type	EPS (Electronic Power Steering) (for 1ZZ-FE and 3ZZ-FE) Hydraulic Type Power Steering (for 1AZ-FSE, 1AZ-FE and 1CD-FTV)
------	--

Brake

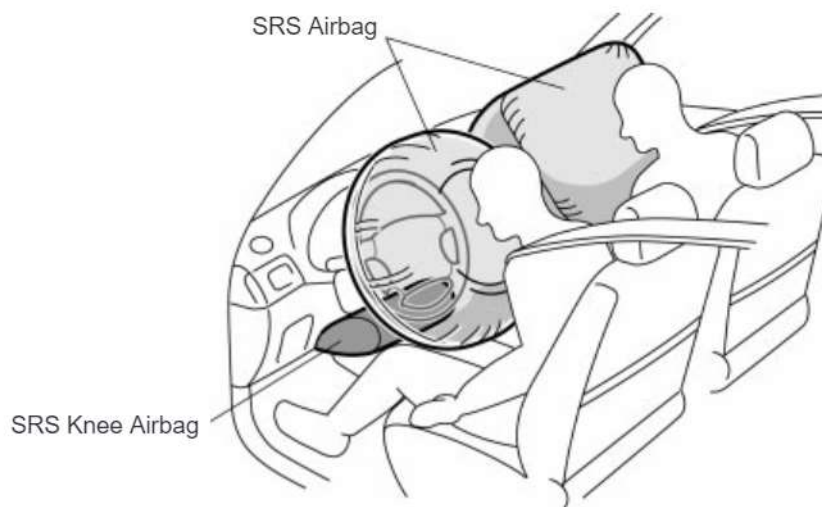
Front Brake Type	Ventilated Disc	for 15-inch Wheel (for 1ZZ-FE, 3ZZ-FE and 1AZ-FE) for 16-inch Wheel (for 1AZ-FSE and 1CD-FTV)
Rear Brake Type	Solid Disc	for 15-inch Wheel Size
Brake Control System	ABS with EBD (for All models) ABS with EBD, Brake Assist, TRC and VSC*	

*: Standard for 1AZ-FSE engine models, Option for 1CD-FTV engine models

SAFETY

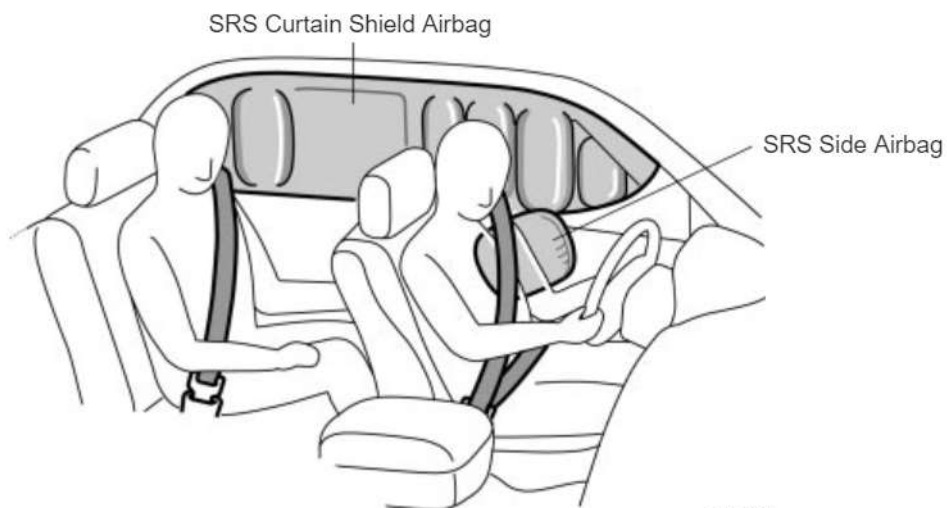
SRS (Supplemental Restraint System) Airbag System

- A newly developed SRS knee airbag is standard equipment for the driver's seat on the new Avensis.
- The SRS knee airbag is positioned in the lower part of the instrument panel on the driver's side to receive the impact of the driver's lower body when he or she shifts forward in the event of a frontal collision, contributing to prevention of secondary impact to the lower body.
- Dual-stage SRS airbags are standard equipment for the driver and front passenger seats. In the event of a severe frontal collision, the airbags function with the seat belts to help reduce the impact on the driver's and front passenger's head and chest. The seat position sensor is adopted only for the driver's seat to help the driver side SRS airbag deploy at the right moment.



240MO83

- SRS side airbags (driver / front passenger seats) which help ease side impacts, are standard equipment.
- SRS curtain shield airbags (front/rear seats) that help ease side impacts are standard equipment for all models except 1AZ-FE engine models. They are available as an option for 1AZ-FE engine models.

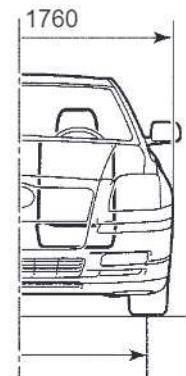
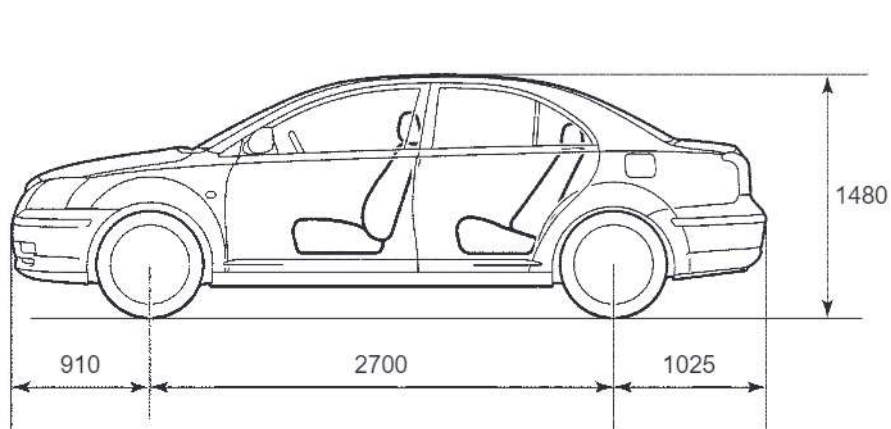


240MO84

DIMENSIONS

mm (in.)

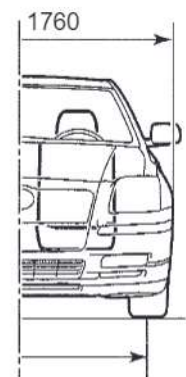
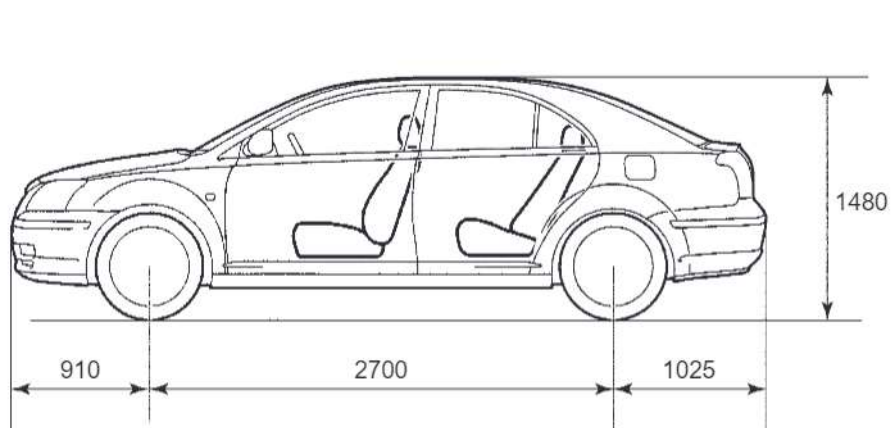
4-Door Sedan



Front: 1505*¹, 1515*²
Rear: 1500*¹, 1515*²

240MO92

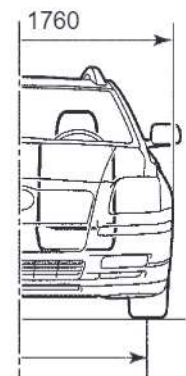
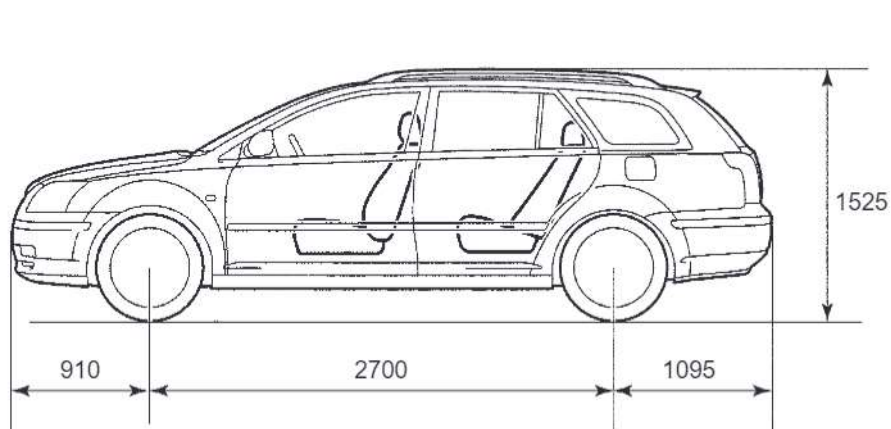
5-Door Liftback



Front: 1505*¹, 1515*²
Rear: 1500*¹, 1515*²

240MO93

5-Door Wagon



Front: 1505*¹, 1515*²
Rear: 1500*¹, 1515*²

240MO94

*1: 16 in. or 17 in. Tire

*2: 15 in. Tire

EQUIPMENT LIST

●: Standard

OP: Option

				Europe			General Countries	
				ENTRY	MID TECHNICAL	MID ELEGANT		
Exterior								
Rear Spoiler			Wagon	●	●	●	—	
Side Protection Moulding				OP	OP	OP	OP	
Glass	Windshield		Green	●	●	●	—	
	Front Side		Green	●	●	●	●	
	Rear Side & Back		Green	●	●	●	●	
		Wagon	Privacy	OP	OP	OP	—	
	Rear Quarter	Wagon	Green	●	●	●	—	
			Privacy	OP	OP	OP	—	
Chassis								
Tire	195/65 R15		3ZZ-FE & 1ZZ-FE & 1AZ-FE	●	●	●	●	
	205/55 R16	1AZ-FSE & 1CD-FTV		●	●	●	—	
		3ZZ-FE & 1ZZ-FE & 1AZ-FE		OP	OP	OP	OP	
	215/45 R17	1AZ-FE		—	OP	OP	—	
		1AZ-FSE		—	OP	OP	—	
Disc Wheel	15 x 6J Steel		3ZZ-FE & 1ZZ-FE & 1AZ-FE	●	●	●	●	
	16 x 6 1/2 J Steel	1AZ-FSE & 1CD-FTV		●	●	●	—	
		3ZZ-FE & 1ZZ-FE & 1AZ-FE		OP	OP	OP	OP	
	16 x 6 1/2 JJ Aluminum			OP	OP	OP	OP	
	16 x 6 1/2 JJ Light Weight Aluminum			OP	OP	OP	OP	
	17 x 7JJ Aluminum	1AZ-FE		—	OP	OP	—	
		1AZ-FSE		—	OP	OP	—	
ABS (Anti-lock Brake System) with EBD (Electronic Brake force Distribution)				●	●	●	●	
VSC (Vehicle Stability Control) & Brake Assist & TRC (Traction Control)			1AZ-FSE	—	●	●	—	
			1CD-FTV	OP	OP	OP		
Steering	Wheel		4-Spoke Urethane	●	—	—	●	
			4-Spoke Leather	—	●	●	—	
	Column		Manual Tilt & Telescopic	●	●	●	●	
	EPS*1		3ZZ-FE & 1ZZ-FE	●	●	●	—	
	Hydraulic Type Power Steering		1AZ-FSE & 1CD-FTV & 1AZ-FE	●	●	●	●	
Body								
Seat	Cover	Fabric		●	●	●	●	
		Leather		1AZ-FSE & 1CD-FTV	—	OP	OP	—
	Front	Manual		●	●	●	●	
		Power		1AZ-FSE & 1CD-FTV	—	OP	OP	—
	Rear	Fix		Sedan	●	—	—	—
		60:40 Folding		Sedan	—	●	●	●
		60:40 Double Folding		Liftback & Wagon	●	●	●	—
Seat Belt	Front	3-Point ELR*2 Electrical Sensing Type Pretensioner & Force Limiter		●	●	●	●	
	Rear	3-Point ELR*2 & ALR*3		●	●	●	●	
CRS (Child Restraint System) Anchor System (Rear Outside Seat Only)				●	●	●	●	

*1: Electronic Power Steering

*2: Emergency Locking Retractor

*3: Automatic Locking Retractor

●: Standard

OP: Option

				Europe			General Countries	
				ENTRY	MID TECHNICAL	MID ELEGANT		
Body Electrical								
Headlight		Projector		●	●	●	●	
		HID (High Intensity Discharge)		—	OP	OP	—	
Headlight Beam		Manual		●	●	●	—	
Level Control System		Automatic		—	OP	OP	—	
Headlight Cleaner System				OP*5	OP	OP	—	
Fog Light	Front	Except for 1AZ-FE		OP	●	●	—	
		1AZ-FE		—	OP	OP	OP*4	
	Rear				●	●	●	—
Illuminated Entry System				●	●	●	●	
Navigation System				—	OP	OP	—	
Multi information Display				OP	●	●	—	
Audio System		8-speaker Only		OP	OP	OP	OP	
		Radio/CD/Cassette/8-speaker		●	●	●	●	
		Steering Switch		●	●	●	—	
Air Conditioner		Manual		●	—	—	●	
		Automatic		—	●	●	—	
		Without		OP	—	—	OP	
Heater		Conventional Type	Except for 1CD-FTV	●	●	●	●	
		PTC Type	1CD-FTV	OP	—	—	—	
		Hot Gas Type	1CD-FTV	●	●	●	—	
		Combustion Type	LHD of 1CD-FTV	—	OP	OP	—	
Wiper System	Front	Adjustment Interval INT Function		●	—	—	●	
		Raindrop Sensing Function		—	●	●	—	
	Rear	Intermittent Function	Liftback & Wagon	●	●	●	—	
Power Window System		Front Door One-Motion Auto Up-and-Down, Jam Protection Function		●	—	—	●	
		All-Door One-Motion Auto Up-and-Down, Jam Protection Function		OP	●	●	OP	
Door Lock Control System		Power Door Lock Control System		●	●	●	●	
		Wireless Door Lock Remote Control System		●	●	●	—	
		Double Locking System	Except for 1AZ-FE & LHD	●	●	●	—	
Engine Immobiliser System		Except for 1AZ-FE		●	●	●	—	
		1AZ-FE		—	OP	OP		
Theft Deterrent System		Except for 1AZ-FE & 1CD-FTV		●	●	●	—	
SRS*5 Airbag System		Driver & Front Passenger & Side & Knee Airbags		Except for 1AZ-FE	OP	—	—	—
				1AZ-FE	—	●	●	●
		Driver & Front Passenger & Side & Knee & Curtain Shield Airbags		Except for 1AZ-FE	●	●	●	—
				1AZ-FE	—	OP	OP	
Cruise Control System		1AZ-FSE & 1CD-FTV		—	OP	OP	—	
Outside Rear View Mirror		Electrical Retractable with Heater		—	●	●	—	
		Electrical Retractable		—	—	—	●	
Inside Rear View Mirror		Automatic Glare-Resistant EC (Electrical) Type		—	●	●	—	
		Manual Glare-Resistant Type		●	—	—	●	
Power Tilt Up-and-Sliding Moon Roof (with Jam Protection Function)			Except for 1AZ-FSE		OP	OP	OP	—
			1AZ-FSE		—	OP*6	OP*6	—

*4: LHD Models

*5: Supplemental Restraint System

*6: Except for Automatic Transaxle of Wagon Models

– MEMO –

MAJOR TECHNICAL SPECIFICATIONS

Item		Area	EUROPE			
Body Type			4-Door Sedan			
Vehicle Grade			ENTRY		MID TECHNICAL	MID ELEGANT
Model Code			ZZT250R-AEMNKW	ZZT250L-AEMNKW	ZZT250L-AEMEKW	ZZT250L-AEMGKW
Major Dimension & Vehicle Weights	Overall	Length mm (in.)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
		Width mm (in.)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
		Height mm (in.)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
	Wheel Base	mm (in.)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	Tread	Front mm (in.)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
		Rear mm (in.)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	Room	Length mm (in.)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
		Width mm (in.)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
		Height mm (in.)	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	Overhang	Front mm (in.)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
		Rear mm (in.)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
	Min. Running Ground Clearance mm (in.)		135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	Angle of Approach degrees		13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	Angle of Departure degrees		18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
Performance	Curb Weight	Front kg (lb)	710 - 750 (1565 - 1653)	710 - 750 (1565 - 1653)	720 - 750 (1587 - 1653)	720 - 750 (1587 - 1653)
		Rear kg (lb)	535 - 560 (1179 - 1235)	535 - 560 (1179 - 1235)	550 - 570 (1213 - 1257)	550 - 570 (1213 - 1257)
		Total kg (lb)	1245 - 1310 (2744 - 2888)	1245 - 1310 (2744 - 2888)	1270 - 1320 (2800 - 2910)	1270 - 1320 (2800 - 2910)
	Gross Vehicle Weight	Front kg (lb)	840 (1852)	840 (1852)	840 (1852)	840 (1852)
		Rear kg (lb)	980 (2161)	980 (2161)	980 (2161)	980 (2161)
		Total kg (lb)	1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)
	Fuel Tank Capacity ℓ (Imp gal.)		60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	Luggage Compartment Capacity m ³ (cu. ft.)		0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
	Max. Speed km / h (mph)		190 (118)	190 (118)	190 (118)	190 (118)
	Max. Cruising Speed km / h (mph)		—	—	—	—
Engine	Acceleration	0 to 100 km / h sec.	12.0	12.0	12.0	12.0
		0 to 400 m sec.	18.1	18.1	18.1	18.1
	Max. Permissible Speed	1st Gear km / h (mph)	47 (29)	47 (29)	47 (29)	47 (29)
		2nd Gear km / h (mph)	87 (54)	87 (54)	87 (54)	87 (54)
		3rd Gear km / h (mph)	127 (78)	127 (78)	127 (78)	127 (78)
		4th Gear km / h (mph)	172 (106)	172 (106)	172 (106)	172 (106)
	Min. Turning Radius	Tire m (ft.)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)
		Body m (ft.)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)
	Engine Type		3ZZ-FE	3ZZ-FE	3ZZ-FE	3ZZ-FE
	Valve Mechanism		16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
Engine Electric	Bore x Stroke mm (in.)		79.0 x 81.5 (3.11 x 3.21)	79.0 x 81.5 (3.11 x 3.21)	79.0 x 81.5 (3.11 x 3.21)	79.0 x 81.5 (3.11 x 3.21)
	Displacement cm ³ (cu. in.)		1598 (97.5)	1598 (97.5)	1598 (97.5)	1598 (97.5)
	Compression Ratio		10.5	10.5	10.5	10.5
	Carburetor Type or Injection Pump Type (Diesel)		EFI	EFI	EFI	EFI
	Research Octane No. or Cetane No. (Diesel)		95 or higher	95 or higher	95 or higher	95 or higher
	Max. Output (EEC) kW / rpm		81 / 6000	81 / 6000	81 / 6000	81 / 6000
	Max. Torque (EEC) N·m / rpm		150 / 3800	150 / 3800	150 / 3800	150 / 3800
	Battery Capacity (5HR) Voltage & Amp. hr.		12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3
	Alternator Output Watts		960, 1080*3	960, 1080*3	960, 1080*3	960, 1080*3
	Starter Output kW		1.3	1.3	1.3	1.3
Chassis	Clutch Type		Dry, Single Plate	Dry, Single Plate	Dry, Single Plate	Dry, Single Plate
	Transaxle Type		C50	C50	C50	C50
	Transmission Gear Ratio	In First	3.545	3.545	3.545	3.545
		In Second	1.904	1.904	1.904	1.904
		In Third	1.310	1.310	1.310	1.310
		In Fourth	0.969	0.969	0.969	0.969
		In Fifth	0.815	0.815	0.815	0.815
	In Reverse		3.250	3.250	3.250	3.250
	Counter Gear Ratio		—	—	—	—
	Differential Gear Ratio (Final)		4.312	4.312	4.312	4.312
	Brake Type	Front	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
		Rear	Solid Disc	Solid Disc	Solid Disc	Solid Disc
	Parking Brake Type		Drum	Drum	Drum	Drum
	Brake Booster Type and Size in.		Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	Proportioning Valve Type		—	—	—	—
	Suspension Type	Front	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
		Rear	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	Stabilizer Bar	Front	STD	STD	STD	STD
		Rear	STD	STD	STD	STD
	Steering Gear Type		Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	Steering Gear Ratio (Overall)		17.5	17.5	17.5	17.5
	Power Steering Type		EPS	EPS	EPS	EPS

*1: With Sun Roof

*2: Rough Road Pack

*3: Option

EUROPE					
4-Door Sedan					
ENTRY				MID TECHNICAL	
ZZT251R-AEMNKW	ZZT251L-AEMNKW	ZZT251R-AEPNKW	ZZT251L-AEPNKW	ZZT251R-AEMEKW	ZZT251L-AEMEKW
5 4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
10 1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
15 1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
710 - 750 (1565 - 1653)	710 - 750 (1565 - 1653)	730 - 770 (1609 - 1698)	730 - 770 (1609 - 1698)	720 - 750 (1587 - 1653)	720 - 750 (1587 - 1653)
535 - 560 (1179 - 1235)	535 - 560 (1179 - 1235)	535 - 560 (1179 - 1235)	535 - 560 (1179 - 1235)	550 - 570 (1213 - 1257)	550 - 570 (1213 - 1257)
1245 - 1310 (2744 - 2888)	1245 - 1310 (2744 - 2888)	1265 - 1330 (2788 - 2932)	1265 - 1330 (2788 - 2932)	1270 - 1320 (2800 - 2910)	1270 - 1320 (2800 - 2910)
840 (1852)	840 (1852)	840 (1852)	840 (1852)	840 (1852)	840 (1852)
980 (2161)	980 (2161)	980 (2161)	980 (2161)	980 (2161)	980 (2161)
1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)
25 60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
200 (124)	200 (124)	185 (115)	185 (115)	200 (124)	200 (124)
—	—	—	—	—	—
10.3	10.3	11.6	11.6	10.3	10.3
17.1	17.1	17.9	17.9	17.1	17.1
30 51 (31)	51 (31)	59 (36)	59 (36)	51 (31)	51 (31)
95 (59)	95 (59)	109 (67)	109 (67)	95 (59)	95 (59)
139 (86)	139 (86)	169 (105)	169 (105)	139 (86)	139 (86)
176 (109)	176 (109)	—	—	176 (109)	176 (109)
35 5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)
5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)
1ZZ-FE	1ZZ-FE	1ZZ-FE	1ZZ-FE	1ZZ-FE	1ZZ-FE
16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)
40 1794 (109.5)	1794 (109.5)	1794 (109.5)	1794 (109.5)	1794 (109.5)	1794 (109.5)
10.0	10.0	10.0	10.0	10.0	10.0
EFI	EFI	EFI	EFI	EFI	EFI
95 or higher	95 or higher	95 or higher	95 or higher	95 or higher	95 or higher
95 / 6000	95 / 6000	95 / 6000	95 / 6000	95 / 6000	95 / 6000
170 / 4200	170 / 4200	170 / 4200	170 / 4200	170 / 4200	170 / 4200
45 12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3
960, 1080*3	960, 1080*3	960, 1080*3	960, 1080*3	960, 1080*3	960, 1080*3
1.3	1.3	1.3	1.3	1.3	1.3
Dry, Single Plate	Dry, Single Plate	—	—	Dry, Single Plate	Dry, Single Plate
50 C250	C250	U341E	U341E	C250	C250
3.545	3.545	2.847	2.847	3.545	3.545
1.904	1.904	1.552	1.552	1.904	1.904
1.310	1.310	1.000	1.000	1.310	1.310
1.031	1.031	0.700	0.700	1.031	1.031
55 0.815	0.815	—	—	0.815	0.815
3.250	3.250	2.343	2.343	3.250	3.250
—	—	—	—	—	—
3.941	3.941	4.237	4.237	3.941	3.941
Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
60 Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc
Drum	Drum	Drum	Drum	Drum	Drum
Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
—	—	—	—	—	—
MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
65 Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
STD	STD	STD	STD	STD	STD
STD	STD	STD	STD	STD	STD
Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
17.5	17.5	17.5	17.5	17.5	17.5
70 EPS	EPS	EPS	EPS	EPS	EPS

Item		Area	EUROPE			
Body Type			4-Door Sedan			
Vehicle Grade			MID TECHNICAL		MID ELEGANT	
Model Code			ZZT251R-AEPEKW	ZZT251L-AEPEKW	ZZT251R-AEMGKW	ZZT251L-AEMGKW
Major Dimension & Vehicle Weights	Overall	Length mm (in.)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
		Width mm (in.)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
		Height mm (in.)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
	Wheel Base	mm (in.)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	Tread	Front mm (in.)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
		Rear mm (in.)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	Room	Length mm (in.)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
		Width mm (in.)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
		Height mm (in.)	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	Overhang	Front mm (in.)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
		Rear mm (in.)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
	Min. Running Ground Clearance	mm (in.)	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	Angle of Approach	degrees	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	Angle of Departure	degrees	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
Performance	Curb Weight	Front kg (lb)	740 - 770 (1631 - 1698)	740 - 770 (1631 - 1698)	720 - 750 (1587 - 1653)	720 - 750 (1587 - 1653)
		Rear kg (lb)	550 - 575 (1213 - 1268)	550 - 575 (1213 - 1268)	550 - 570 (1213 - 1257)	550 - 570 (1213 - 1257)
		Total kg (lb)	1290 - 1345 (2844 - 2966)	1290 - 1345 (2844 - 2966)	1270 - 1320 (2800 - 2910)	1270 - 1320 (2800 - 2910)
	Gross Vehicle Weight	Front kg (lb)	840 (1852)	840 (1852)	840 (1852)	840 (1852)
		Rear kg (lb)	980 (2161)	980 (2161)	980 (2161)	980 (2161)
		Total kg (lb)	1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)
	Fuel Tank Capacity	ℓ (Imp gal.)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	Luggage Compartment Capacity	m³ (cu. ft.)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
	Max. Speed	km / h (mph)	185 (115)	185 (115)	200 (124)	200 (124)
	Max. Cruising Speed	km / h (mph)	—	—	—	—
Engine	Acceleration	0 to 100 km / h sec.	11.6	11.6	10.3	10.3
		0 to 400 m sec.	17.9	17.9	17.1	17.1
	Max. Permissible Speed	1st Gear km / h (mph)	59 (36)	59 (36)	51 (31)	51 (31)
		2nd Gear km / h (mph)	109 (67)	109 (67)	95 (59)	95 (59)
		3rd Gear km / h (mph)	169 (105)	169 (105)	139 (86)	139 (86)
		4th Gear km / h (mph)	—	—	176 (109)	176 (109)
	Min. Turning Radius	Tire m (ft.)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)
		Body m (ft.)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)
	Engine Type		1ZZ-FE	1ZZ-FE	1ZZ-FE	1ZZ-FE
	Valve Mechanism		16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
Engine Electric	Bore x Stroke	mm (in.)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)
	Displacement	cm³ (cu. in.)	1794 (109.5)	1794 (109.5)	1794 (109.5)	1794 (109.5)
	Compression Ratio		10.0	10.0	10.0	10.0
	Carburetor Type or Injection Pump Type (Diesel)		EFI	EFI	EFI	EFI
	Research Octane No. or Cetane No. (Diesel)		95 or higher	95 or higher	95 or higher	95 or higher
	Max. Output (EEC)	kW / rpm	95 / 6000	95 / 6000	95 / 6000	95 / 6000
	Max. Torque (EEC)	N·m / rpm	170 / 4200	170 / 4200	170 / 4200	170 / 4200
	Battery Capacity (5HR)	Voltage & Amp. hr.	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3
	Alternator Output	Watts	960, 1080*3	960, 1080*3	960, 1080*3	960, 1080*3
	Starter Output	kW	1.3	1.3	1.3	1.3
Chassis	Clutch Type		—	—	Dry, Single Plate	Dry, Single Plate
	Transaxle Type		U341E	U341E	C250	C250
	Transmission Gear Ratio	In First	2.847	2.847	3.545	3.545
		In Second	1.552	1.552	1.904	1.904
		In Third	1.000	1.000	1.310	1.310
		In Fourth	0.700	0.700	1.031	1.031
		In Fifth	—	—	0.815	0.815
		In Reverse	2.343	2.343	3.250	3.250
	Counter Gear Ratio		—	—	—	—
	Differential Gear Ratio (Final)		4.237	4.237	3.941	3.941
	Brake Type	Front	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
		Rear	Solid Disc	Solid Disc	Solid Disc	Solid Disc
	Parking Brake Type		Drum	Drum	Drum	Drum
	Brake Booster Type and Size	in.	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	Proportioning Valve Type		—	—	—	—
	Suspension Type	Front	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
		Rear	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	Stabilizer Bar	Front	STD	STD	STD	STD
		Rear	STD	STD	STD	STD
	Steering Gear Type		Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	Steering Gear Ratio (Overall)		17.5	17.5	17.5	17.5
	Power Steering Type		EPS	EPS	EPS	EPS

*1: With Sun Roof

*2: Rough Road Pack

*3: Option

EUROPE					
4-Door Sedan					
MID ELEGANT		MID TECHNICAL		MID ELEGANT	
ZZT251R-AEPGKW	ZZT251L-AEPGKW	AZT250L-AEMEKW	AZT250L-AEPEKW	AZT250L-AEMGKW	AZT250L-AEPGKW
5	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
10	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
15	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
	740 - 770 (1631 - 1698)	740 - 770 (1631 - 1698)	765 - 800 (1687 - 1764)	795 - 830 (1753 - 1830)	765 - 800 (1687 - 1764)
20	550 - 575 (1213 - 1268)	550 - 575 (1213 - 1268)	540 - 555 (1190 - 1224)	540 - 555 (1190 - 1224)	540 - 555 (1190 - 1224)
	1290 - 1345 (2844 - 2966)	1290 - 1345 (2844 - 2966)	1305 - 1355 (2877 - 2988)	1305 - 1355 (2877 - 2988)	1335 - 1385 (2943 - 3054)
	840 (1852)	840 (1852)	915 (2017)	915 (2017)	915 (2017)
	980 (2161)	980 (2161)	975 (2150)	975 (2150)	975 (2150)
	1820 (4013)	1820 (4013)	1890 (4167)	1890 (4167)	1890 (4167)
25	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
	185 (115)	185 (115)	200 (124)	200 (124)	190 (118)
	—	—	—	—	—
	11.6	11.6	9.5	11.1	11.1
30	17.9	17.9	16.7	17.6	17.6
	59 (36)	59 (36)	51 (31)	62 (38)	62 (38)
	109 (67)	109 (67)	88 (54)	111 (68)	111 (68)
	169 (105)	169 (105)	136 (84)	174 (108)	174 (108)
	—	—	177 (109)	—	—
35	5.4 (17.7)	5.4 (17.7)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)
	5.75 (18.9)	5.75 (18.9)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)
	1ZZ-FE	1ZZ-FE	1AZ-FE	1AZ-FE	1AZ-FE
	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
40	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)
	1794 (109.5)	1794 (109.5)	1998 (121.9)	1998 (121.9)	1998 (121.9)
	10.0	10.0	9.8	9.8	9.8
	EFI	EFI	EFI	EFI	EFI
	95 or higher	95 or higher	95 or higher	95 or higher	95 or higher
	95 / 6000	95 / 6000	108 / 6000	108 / 6000	108 / 6000
45	170 / 4200	170 / 4200	192 / 4000	192 / 4000	192 / 4000
	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3
	960, 1080*3	960, 1080*3	1200	1200	1200
	1.3	1.3	1.3	1.3	1.3
	—	—	Dry, Single Plate	Dry, Single Plate	—
50	U341E	U341E	E354	U241E	E354
	2.847	2.847	3.538	3.943	3.943
	1.552	1.552	2.054	2.197	2.197
	1.000	1.000	1.333	1.413	1.413
	0.700	0.700	1.028	1.020	1.020
55	—	—	0.820	—	0.820
	2.343	2.343	3.583	3.145	3.583
	—	—	—	—	—
	4.237	4.237	3.944	2.923	3.944
	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
60	Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc
	Drum	Drum	Drum	Drum	Drum
	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	—	—	—	—	—
	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
65	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	STD	STD	STD	STD	STD
	STD	STD	STD	STD	STD
	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	17.5	17.5	16.1	16.1	16.1
70	EPS	EPS	Integral Type	Integral Type	Integral Type

Item		Area	EUROPE			
Body Type			4-Door Sedan			
Vehicle Grade			MID TECHNICAL			
Model Code			AZT250R-AEMEHW	AZT250L-AEMEHW	AZT250R-AEPEHW	AZT250L-AEPEHW
Major Dimension & Vehicle Weights	Overall	Length mm (in.)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
		Width mm (in.)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
		Height mm (in.)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
	Wheel Base	mm (in.)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	Tread	Front mm (in.)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
		Rear mm (in.)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	Room	Length mm (in.)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
		Width mm (in.)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
		Height mm (in.)	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	Overhang	Front mm (in.)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
		Rear mm (in.)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
	Min. Running Ground Clearance	mm (in.)	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	Angle of Approach	degrees	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	Angle of Departure	degrees	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
Performance	Curb Weight	Front kg (lb)	770 - 800 (1698 - 1764)	770 - 800 (1698 - 1764)	800 - 830 (1764 - 1830)	800 - 830 (1764 - 1830)
		Rear kg (lb)	560 - 575 (1235 - 1268)	560 - 575 (1235 - 1268)	560 - 575 (1235 - 1268)	560 - 575 (1235 - 1268)
		Total kg (lb)	1330 - 1375 (2932 - 3032)	1330 - 1375 (2932 - 3032)	1360 - 1405 (2999 - 3098)	1360 - 1405 (2999 - 3098)
	Gross Vehicle Weight	Front kg (lb)	915 (2017)	915 (2017)	915 (2017)	915 (2017)
		Rear kg (lb)	980 (2161)	980 (2161)	980 (2161)	980 (2161)
		Total kg (lb)	1895 (4178)	1895 (4178)	1895 (4178)	1895 (4178)
	Fuel Tank Capacity	ℓ (Imp gal.)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	Luggage Compartment Capacity	m³ (cu. ft.)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
	Max. Speed	km / h (mph)	205 (127)	205 (127)	195 (121)	195 (121)
	Max. Cruising Speed	km / h (mph)	—	—	—	—
	Acceleration	0 to 100 km / h sec.	9.4	9.4	11.1	11.1
		0 to 400 m sec.	16.6	16.6	17.6	17.6
	Max. Permissible Speed	1st Gear km / h (mph)	56 (34)	56 (34)	63 (39)	63 (39)
		2nd Gear km / h (mph)	96 (59)	96 (59)	114 (71)	114 (71)
		3rd Gear km / h (mph)	149 (92)	149 (92)	177 (110)	177 (110)
		4th Gear km / h (mph)	193 (119)	193 (119)	—	—
	Min. Turning Radius	Tire m (ft.)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)
		Body m (ft.)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)
Engine	Engine Type		1AZ-FSE	1AZ-FSE	1AZ-FSE	1AZ-FSE
	Valve Mechanism		16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
	Bore x Stroke mm (in.)		86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)
	Displacement cm³ (cu. in.)		1998 (121.9)	1998 (121.9)	1998 (121.9)	1998 (121.9)
	Compression Ratio		11.0	11.0	11.0	11.0
	Carburetor Type or Injection Pump Type (Diesel)		EFI	EFI	EFI	EFI
	Research Octane No. or Cetane No. (Diesel)		95 or higher	95 or higher	95 or higher	95 or higher
	Max. Output (EEC) kW / rpm		108 / 5700	108 / 5700	108 / 5700	108 / 5700
	Max. Torque (EEC) N·m / rpm		196 / 4000	196 / 4000	196 / 4000	196 / 4000
	Battery Capacity (5HR) Voltage & Amp. hr.		12 - 32, 48*3	12 - 32, 48*3	12 - 48	12 - 48
Engine Electric	Alternator Output Watts		1200	1200	1200	1200
	Starter Output kW		1.3, 1.6*3	1.3, 1.6*3	1.6	1.6
	Clutch Type		Dry, Single Plate	Dry, Single Plate	—	—
	Transaxle Type		E354	E354	U241E*4	U241E*4
	Transmission Gear Ratio	In First	3.538	3.538	3.943	3.943
		In Second	2.054	2.054	2.197	2.197
		In Third	1.333	1.333	1.413	1.413
		In Fourth	1.028	1.028	1.020	1.020
		In Fifth	0.820	0.820	—	—
		In Reverse	3.583	3.583	3.145	3.145
	Counter Gear Ratio		—	—	—	—
	Differential Gear Ratio (Final)		3.684	3.684	2.923	2.923
	Brake Type	Front	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
		Rear	Solid Disc	Solid Disc	Solid Disc	Solid Disc
Chassis	Parking Brake Type		Drum	Drum	Drum	Drum
	Brake Booster Type and Size in.		Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	Proportioning Valve Type		—	—	—	—
	Suspension Type	Front	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
		Rear	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	Stabilizer Bar	Front	STD	STD	STD	STD
		Rear	STD	STD	STD	STD
	Steering Gear Type		Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	Steering Gear Ratio (Overall)		16.1	16.1	16.1	16.1
	Power Steering Type		Integral Type	Integral Type	Integral Type	Integral Type

*1: With Sun Roof

*4: Snow Mord Type

*2: Rough Road Pack

*3: Option

EUROPE					
4-Door Sedan					
MID ELEGANT				ENTRY	
AZT250R-AEMGHW	AZT250L-AEMGHW	AZT250R-AEPGHW	AZT250L-AEPGHW	CDT250R-AEMNYW	CDT250L-AEMNYW
5 4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
10 1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
15 1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
770 - 800 (1698 - 1764)	770 - 800 (1698 - 1764)	800 - 830 (1764 - 1830)	800 - 830 (1764 - 1830)	845 - 895 (1863 - 1973)	845 - 895 (1863 - 1973)
560 - 575 (1235 - 1268)	560 - 575 (1235 - 1268)	560 - 575 (1235 - 1268)	560 - 575 (1235 - 1268)	535 - 550 (1179 - 1213)	535 - 550 (1179 - 1213)
1330 - 1375 (2932 - 3031)	1330 - 1375 (2932 - 3031)	1360 - 1405 (2998 - 3097)	1360 - 1405 (2998 - 3097)	1380 - 1445 (3042 - 3186)	1380 - 1445 (3042 - 3186)
915 (2017)	915 (2017)	915 (2017)	915 (2017)	985 (2172)	985 (2172)
980 (2161)	980 (2161)	980 (2161)	980 (2161)	985 (2172)	985 (2172)
1895 (4178)	1895 (4178)	1895 (4178)	1895 (4178)	1970 (4343)	1970 (4343)
25 60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
205 (127)	205 (127)	195 (121)	195 (121)	195 (121)	195 (121)
—	—	—	—	—	—
9.4	9.4	11.1	11.1	11.2	11.2
16.6	16.6	17.6	17.6	17.7	17.7
30 56 (34)	56 (34)	63 (39)	63 (39)	45 (27)	45 (27)
96 (59)	96 (59)	114 (71)	114 (71)	84 (52)	84 (52)
149 (92)	149 (92)	177 (110)	177 (110)	128 (79)	128 (79)
193 (119)	193 (119)	—	—	176 (109)	176 (109)
35 5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)
5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)
1AZ-FSE	1AZ-FSE	1AZ-FSE	1AZ-FSE	1CD-FTV	1CD-FTV
16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	82.2 x 94.0 (3.24 x 3.70)	82.2 x 94.0 (3.24 x 3.70)
40 1998 (121.9)	1998 (121.9)	1998 (121.9)	1998 (121.9)	1995 (121.7)	1995 (121.7)
11.0	11.0	11.0	11.0	17.8	17.8
EFI	EFI	EFI	EFI	Common-Rail Type	Common-Rail Type
95 or higher	95 or higher	95 or higher	95 or higher	48 or higher	48 or higher
108 / 5700	108 / 5700	108 / 5700	108 / 5700	85 / 3600	85 / 3600
196 / 4000	196 / 4000	196 / 4000	196 / 4000	280 / 2000 - 2200	280 / 2000 - 2200
45 12 - 32, 48*3	12 - 32, 48*3	12 - 48	12 - 48	12 - 60	12 - 60
1200	1200	1200	1200	1200, 1080*3	1200, 1080*3
1.3, 1.6*3	1.3, 1.6*3	1.6	1.6	2.0	2.0
Dry, Single Plate	Dry, Single Plate	—	—	Dry, Single Plate	Dry, Single Plate
50 E354	E354	U241E*4	U241E*4	E357	E357
3.538	3.538	3.943	3.943	3.538	3.538
2.054	2.054	2.197	2.197	1.913	1.913
1.333	1.333	1.413	1.413	1.258	1.258
1.028	1.028	1.020	1.020	0.918	0.918
55 0.820	0.820	—	—	0.690	0.690
3.583	3.583	3.145	3.145	3.583	3.583
—	—	—	—	—	—
3.684	3.684	2.923	2.923	3.684	3.684
Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
60 Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc
Drum	Drum	Drum	Drum	Drum	Drum
Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
—	—	—	—	—	—
MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
65 Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
STD	STD	STD	STD	STD	STD
STD	STD	STD	STD	STD	STD
Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
16.1	16.1	16.1	16.1	16.1	16.1
70 Integral Type	Integral Type	Integral Type	Integral Type	Integral Type	Integral Type

Item		Area	EUROPE			
Body Type			4-Door Sedan			
Vehicle Grade			MID TECHNICAL		MID ELEGANT	
Model Code			CDT250R-AEMEYW	CDT250L-AEMEYW	CDT250R-AEMGYW	CDT250L-AEMGYW
Major Dimension & Vehicle Weights	Overall	Length mm (in.)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
		Width mm (in.)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
		Height mm (in.)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
	Wheel Base	mm (in.)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	Tread	Front mm (in.)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
		Rear mm (in.)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	Room	Length mm (in.)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
		Width mm (in.)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
		Height mm (in.)	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	Overhang	Front mm (in.)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
		Rear mm (in.)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
	Min. Running Ground Clearance	mm (in.)	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	Angle of Approach	degrees	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	Angle of Departure	degrees	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
Performance	Curb Weight	Front kg (lb)	845 - 900 (1863 - 1984)	845 - 900 (1863 - 1984)	845 - 900 (1863 - 1984)	845 - 900 (1863 - 1984)
		Rear kg (lb)	535 - 565 (1179 - 1246)	535 - 565 (1179 - 1246)	535 - 565 (1179 - 1246)	535 - 565 (1179 - 1246)
		Total kg (lb)	1380 - 1465 (3042 - 3230)	1380 - 1465 (3042 - 3230)	1380 - 1465 (3042 - 3230)	1380 - 1465 (3042 - 3230)
	Gross Vehicle Weight	Front kg (lb)	985 (2172)	985 (2172)	985 (2172)	985 (2172)
		Rear kg (lb)	985 (2172)	985 (2172)	985 (2172)	985 (2172)
		Total kg (lb)	1970 (4344)	1970 (4344)	1970 (4344)	1970 (4344)
	Fuel Tank Capacity	ℓ (Imp gal.)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	Luggage Compartment Capacity	m³ (cu. ft.)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
	Max. Speed	km / h (mph)	195 (121)	195 (121)	195 (121)	195 (121)
	Max. Cruising Speed	km / h (mph)	—	—	—	—
Engine	Acceleration	0 to 100 km / h sec.	11.2	11.2	11.2	11.2
		0 to 400 m sec.	17.7	17.7	17.7	17.7
	Max. Permissible Speed	1st Gear km / h (mph)	45 (27)	45 (27)	45 (27)	45 (27)
		2nd Gear km / h (mph)	84 (52)	84 (52)	84 (52)	84 (52)
		3rd Gear km / h (mph)	128 (79)	128 (79)	128 (79)	128 (79)
		4th Gear km / h (mph)	176 (109)	176 (109)	176 (109)	176 (109)
	Min. Turning Radius	Tire m (ft.)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)
		Body m (ft.)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)
	Engine Type		1CD-FTV	1CD-FTV	1CD-FTV	1CD-FTV
	Valve Mechanism		16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
Engine Electric	Bore x Stroke	mm (in.)	82.2 x 94.0 (3.24 x 3.70)	82.2 x 94.0 (3.24 x 3.70)	82.2 x 94.0 (3.24 x 3.70)	82.2 x 94.0 (3.24 x 3.70)
	Displacement	cm³ (cu. in.)	1995 (121.7)	1995 (121.7)	1995 (121.7)	1995 (121.7)
	Compression Ratio		17.8	17.8	17.8	17.8
	Carburetor Type or Injection Pump Type (Diesel)		Common-Rail Type	Common-Rail Type	Common-Rail Type	Common-Rail Type
	Research Octane No. or Cetane No. (Diesel)		48 or higher	48 or higher	48 or higher	48 or higher
	Max. Output (EEC)	kW / rpm	85 / 3600	85 / 3600	85 / 3600	85 / 3600
	Max. Torque (EEC)	N·m / rpm	280 / 2000 - 2200	280 / 2000 - 2200	280 / 2000 - 2200	280 / 2000 - 2200
	Battery Capacity (5HR)	Voltage & Amp. hr.	12 - 60	12 - 60	12 - 60	12 - 60
	Alternator Output	Watts	1200	1200	1200	1200
	Starter Output	kW	2.0	2.0	2.0	2.0
Chassis	Clutch Type		Dry, Single Plate	Dry, Single Plate	Dry, Single Plate	Dry, Single Plate
	Transaxle Type		E357	E357	E357	E357
	Transmission Gear Ratio	In First	3.538	3.538	3.538	3.538
		In Second	1.913	1.913	1.913	1.913
		In Third	1.258	1.258	1.258	1.258
		In Fourth	0.918	0.918	0.918	0.918
		In Fifth	0.690	0.690	0.690	0.690
		In Reverse	3.583	3.583	3.583	3.583
	Counter Gear Ratio		—	—	—	—
	Differential Gear Ratio (Final)		3.684	3.684	3.684	3.684
	Brake Type	Front	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
		Rear	Solid Disc	Solid Disc	Solid Disc	Solid Disc
	Parking Brake Type		Drum	Drum	Drum	Drum
	Brake Booster Type and Size	in.	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	Proportioning Valve Type		—	—	—	—
	Suspension Type	Front	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
		Rear	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	Stabilizer Bar	Front	STD	STD	STD	STD
		Rear	STD	STD	STD	STD
	Steering Gear Type		Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	Steering Gear Ratio (Overall)		16.1	16.1	16.1	16.1
	Power Steering Type		Integral Type	Integral Type	Integral Type	Integral Type

*1: With Sun Roof

*2: Rough Road Pack

*3: Option

EUROPE						
5-Door Liftback						
ENTRY						
	ZZT250R-ALMKNKW	ZZT250L-ALMKNKW	ZZT251R-ALMKNKW	ZZT251L-ALMKNKW	ZZT251R-ALPNKW	ZZT251L-ALPNKW
5	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
10	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
15	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
	710 - 750 (1565 - 1653)	710 - 750 (1565 - 1653)	710 - 750 (1565 - 1653)	710 - 750 (1565 - 1653)	730 - 770 (1609 - 1698)	730 - 770 (1609 - 1698)
20	555 - 570 (1224 - 1257)	555 - 570 (1224 - 1257)	555 - 580 (1224 - 1279)	555 - 580 (1224 - 1279)	555 - 580 (1224 - 1279)	555 - 580 (1224 - 1279)
	1265 - 1320 (2789 - 2910)	1265 - 1320 (2789 - 2910)	1265 - 1330 (2789 - 2932)	1265 - 1330 (2789 - 2932)	1285 - 1350 (2833 - 2977)	1285 - 1350 (2833 - 2977)
	840 (1852)	840 (1852)	840 (1852)	840 (1852)	840 (1852)	840 (1852)
	980 (2161)	980 (2161)	980 (2161)	980 (2161)	980 (2161)	980 (2161)
	1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)
25	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)
	190 (118)	190 (118)	200 (124)	200 (124)	185 (115)	185 (115)
	—	—	—	—	—	—
	12.0	12.0	10.3	10.3	11.6	11.6
30	18.1	18.1	17.1	17.1	17.9	17.9
	47 (29)	47 (29)	51 (31)	51 (31)	59 (36)	59 (36)
	87 (54)	87 (54)	95 (59)	95 (59)	109 (67)	109 (67)
	127 (78)	127 (78)	139 (86)	139 (86)	169 (105)	169 (105)
	172 (106)	172 (106)	176 (109)	176 (109)	—	—
35	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)
	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)
	3ZZ-FE	3ZZ-FE	1ZZ-FE	1ZZ-FE	1ZZ-FE	1ZZ-FE
	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
40	79.0 x 81.5 (3.11 x 3.21)	79.0 x 81.5 (3.11 x 3.21)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)
	1598 (97.5)	1598 (97.5)	1794 (109.5)	1794 (109.5)	1794 (109.5)	1794 (109.5)
	10.5	10.5	10.0	10.0	10.0	10.0
	EFI	EFI	EFI	EFI	EFI	EFI
	95 or higher	95 or higher	95 or higher	95 or higher	95 or higher	95 or higher
	81 / 6000	81 / 6000	95 / 6000	95 / 6000	95 / 6000	95 / 6000
45	150 / 3800	150 / 3800	170 / 4200	170 / 4200	170 / 4200	170 / 4200
	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3
	960, 1080*3	960, 1080*3	960, 1080*3	960, 1080*3	960, 1080*3	960, 1080*3
	1.3	1.3	1.3	1.3	1.3	1.3
	Dry, Single Plate	Dry, Single Plate	Dry, Single Plate	Dry, Single Plate	—	—
50	C50	C50	C250	C250	U341E	U341E
	3.545	3.545	3.545	3.545	2.847	2.847
	1.904	1.904	1.904	1.904	1.552	1.552
	1.310	1.310	1.310	1.310	1.000	1.000
	0.969	0.969	1.031	1.031	0.700	0.700
55	0.815	0.815	0.815	0.815	—	—
	3.250	3.250	3.250	3.250	2.343	2.343
	—	—	—	—	—	—
	4.312	4.312	3.941	3.941	4.237	4.237
	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
60	Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc
	Drum	Drum	Drum	Drum	Drum	Drum
	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	—	—	—	—	—	—
	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
65	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	STD	STD	STD	STD	STD	STD
	STD	STD	STD	STD	STD	STD
	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	17.5	17.5	17.5	17.5	17.5	17.5
70	EPS	EPS	EPS	EPS	EPS	EPS

Item		Area	EUROPE			
Body Type			5-Door Liftback			
Vehicle Grade			MID TECHNICAL			
Model Code			ZZT251R-ALMEKW	ZZT251L-ALMEKW	ZZT251R-ALPEKW	ZZT251L-ALPEKW
Major Dimension & Vehicle Weights	Overall	Length mm (in.)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
		Width mm (in.)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
		Height mm (in.)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
	Wheel Base	mm (in.)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	Tread	Front mm (in.)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
		Rear mm (in.)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	Room	Length mm (in.)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
		Width mm (in.)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
		Height mm (in.)	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	Overhang	Front mm (in.)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
		Rear mm (in.)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
	Min. Running Ground Clearance	mm (in.)	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	Angle of Approach	degrees	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	Angle of Departure	degrees	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
Performance	Curb Weight	Front kg (lb)	720 - 750 (1587 - 1653)	720 - 750 (1587 - 1653)	730 - 770 (1609 - 1698)	730 - 770 (1609 - 1698)
		Rear kg (lb)	555 - 580 (1224 - 1279)	555 - 580 (1224 - 1279)	555 - 580 (1224 - 1279)	555 - 580 (1224 - 1279)
		Total kg (lb)	1275 - 1330 (2811 - 2932)	1275 - 1330 (2811 - 2932)	1285 - 1350 (2833 - 2977)	1285 - 1350 (2833 - 2977)
	Gross Vehicle Weight	Front kg (lb)	840 (1852)	840 (1852)	840 (1852)	840 (1852)
		Rear kg (lb)	980 (2161)	980 (2161)	980 (2161)	980 (2161)
		Total kg (lb)	1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)
	Fuel Tank Capacity	ℓ (Imp gal.)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	Luggage Compartment Capacity	m³ (cu. ft.)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)
	Max. Speed	km / h (mph)	200 (124)	200 (124)	185 (115)	185 (115)
	Max. Cruising Speed	km / h (mph)	—	—	—	—
	Acceleration	0 to 100 km / h sec.	10.3	10.3	11.6	11.6
		0 to 400 m sec.	17.1	17.1	17.9	17.9
	Max. Permissible Speed	1st Gear km / h (mph)	51 (31)	51 (31)	59 (36)	59 (36)
		2nd Gear km / h (mph)	95 (59)	95 (59)	109 (67)	109 (67)
		3rd Gear km / h (mph)	139 (86)	139 (86)	169 (105)	169 (105)
		4th Gear km / h (mph)	176 (109)	176 (109)	—	—
	Min. Turning Radius	Tire m (ft.)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)
		Body m (ft.)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)
Engine	Engine Type		1ZZ-FE	1ZZ-FE	1ZZ-FE	1ZZ-FE
	Valve Mechanism		16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
	Bore x Stroke mm (in.)		79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)
	Displacement cm³ (cu. in.)		1794 (109.5)	1794 (109.5)	1794 (109.5)	1794 (109.5)
	Compression Ratio		10.0	10.0	10.0	10.0
	Carburetor Type or Injection Pump Type (Diesel)		EFI	EFI	EFI	EFI
	Research Octane No. or Cetane No. (Diesel)		95 or higher	95 or higher	95 or higher	95 or higher
	Max. Output (EEC) kW / rpm		95 / 6000	95 / 6000	95 / 6000	95 / 6000
	Max. Torque (EEC) N·m / rpm		170 / 4200	170 / 4200	170 / 4200	170 / 4200
	Battery Capacity (5HR) Voltage & Amp. hr.		12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3
Engine Electric	Alternator Output Watts		960, 1080*3	960, 1080*3	960, 1080*3	960, 1080*3
	Starter Output kW		1.3	1.3	1.3	1.3
	Clutch Type		Dry, Single Plate	Dry, Single Plate	—	—
	Transaxle Type		C250	C250	U341E	U341E
	Transmission Gear Ratio	In First	3.545	3.545	2.847	2.847
		In Second	1.904	1.904	1.552	1.552
		In Third	1.310	1.310	1.000	1.000
		In Fourth	1.031	1.031	0.700	0.700
		In Fifth	0.815	0.815	—	—
		In Reverse	3.250	3.250	2.343	2.343
	Counter Gear Ratio		—	—	—	—
	Differential Gear Ratio (Final)		3.941	3.941	4.237	4.237
	Brake Type	Front	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
		Rear	Solid Disc	Solid Disc	Solid Disc	Solid Disc
Chassis	Parking Brake Type		Drum	Drum	Drum	Drum
	Brake Booster Type and Size in.		Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	Proportioning Valve Type		—	—	—	—
	Suspension Type	Front	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
		Rear	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	Stabilizer Bar	Front	STD	STD	STD	STD
		Rear	STD	STD	STD	STD
	Steering Gear Type		Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	Steering Gear Ratio (Overall)		17.5	17.5	17.5	17.5
	Power Steering Type		EPS	EPS	EPS	EPS

*1: With Sun Roof

*2: Rough Road Pack

*3: Option

EUROPE					
5-Door Liftback					
MID ELEGANT				MID TECHNICAL	
ZZT251R-ALMGKW	ZZT251L-ALMGKW	ZZT251R-ALPGKW	ZZT251L-ALPGKW	AZT250R-ALMEHW	AZT250L-ALMEHW
5 4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
10 1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
15 1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
720 - 750 (1587 - 1653)	720 - 750 (1587 - 1653)	730 - 770 (1609 - 1698)	730 - 770 (1609 - 1698)	770 - 800 (1698 - 1764)	770 - 800 (1698 - 1764)
555 - 580 (1224 - 1279)	555 - 580 (1224 - 1279)	555 - 580 (1224 - 1279)	555 - 580 (1224 - 1279)	565 - 580 (1246 - 1279)	565 - 580 (1246 - 1279)
1275 - 1330 (2811 - 2932)	1275 - 1330 (2811 - 2932)	1285 - 1350 (2833 - 2976)	1285 - 1350 (2833 - 2976)	1335 - 1380 (2944 - 3043)	1335 - 1380 (2944 - 3043)
840 (1852)	840 (1852)	840 (1852)	840 (1852)	915 (2017)	915 (2017)
980 (2161)	980 (2161)	980 (2161)	980 (2161)	980 (2161)	980 (2161)
1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)	1895 (4178)	1895 (4178)
25 60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)
200 (124)	200 (124)	185 (115)	185 (115)	205 (127)	205 (127)
—	—	—	—	—	—
10.3	10.3	11.6	11.6	9.4	9.4
17.1	17.1	17.9	17.9	16.6	16.6
30 51 (31)	51 (31)	59 (36)	59 (36)	56 (34)	56 (34)
95 (59)	95 (59)	109 (67)	109 (67)	96 (59)	96 (59)
139 (86)	139 (86)	169 (105)	169 (105)	149 (92)	149 (92)
176 (109)	176 (109)	—	—	193 (119)	193 (119)
35 5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.6 (18.4)	5.6 (18.4)
5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.995 (19.7)	5.995 (19.7)
1ZZ-FE	1ZZ-FE	1ZZ-FE	1ZZ-FE	1AZ-FSE	1AZ-FSE
16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)
40 1794 (109.5)	1794 (109.5)	1794 (109.5)	1794 (109.5)	1998 (121.9)	1998 (121.9)
10.0	10.0	10.0	10.0	11.0	11.0
EFI	EFI	EFI	EFI	EFI	EFI
95 or higher	95 or higher	95 or higher	95 or higher	95 or higher	95 or higher
95 / 6000	95 / 6000	95 / 6000	95 / 6000	108 / 5700	108 / 5700
170 / 4200	170 / 4200	170 / 4200	170 / 4200	196 / 4000	196 / 4000
45 12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3
960, 1080*3	960, 1080*3	960, 1080*3	960, 1080*3	1200	1200
1.3	1.3	1.3	1.3	1.3, 1.6*3	1.3, 1.6*3
Dry, Single Plate	Dry, Single Plate	—	—	Dry, Single Plate	Dry, Single Plate
50 C250	C250	U341E	U341E	E354	E354
3.545	3.545	2.847	2.847	3.538	3.538
1.904	1.904	1.552	1.552	2.054	2.054
1.310	1.310	1.000	1.000	1.333	1.333
1.031	1.031	0.700	0.700	1.028	1.028
55 0.815	0.815	—	—	0.820	0.820
3.250	3.250	2.343	2.343	3.583	3.583
—	—	—	—	—	—
3.941	3.941	4.237	4.237	3.684	3.684
Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
60 Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc
Drum	Drum	Drum	Drum	Drum	Drum
Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
—	—	—	—	—	—
MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
65 Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
STD	STD	STD	STD	STD	STD
STD	STD	STD	STD	STD	STD
Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
17.5	17.5	17.5	17.5	16.1	16.1
70 EPS	EPS	EPS	EPS	Integral Type	Integral Type

Item		Area	EUROPE			
Body Type			5-Door Liftback			
Vehicle Grade			MID TECHNICAL		MID ELEGANT	
Model Code			AZT250R-ALPEHW	AZT250L-ALPEHW	AZT250R-ALMGHW	AZT250L-ALMGHW
Major Dimension & Vehicle Weights	Overall	Length mm (in.)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
		Width mm (in.)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
		Height mm (in.)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
	Wheel Base	mm (in.)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	Tread	Front mm (in.)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
		Rear mm (in.)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	Room	Length mm (in.)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
		Width mm (in.)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
		Height mm (in.)	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	Overhang	Front mm (in.)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
		Rear mm (in.)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
	Min. Running Ground Clearance	mm (in.)	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	Angle of Approach	degrees	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	Angle of Departure	degrees	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
Performance	Curb Weight	Front kg (lb)	800 - 835 (1764 - 1841)	800 - 835 (1764 - 1841)	770 - 800 (1698 - 1764)	770 - 800 (1698 - 1764)
		Rear kg (lb)	565 - 585 (1246 - 1290)	565 - 585 (1246 - 1290)	565 - 580 (1246 - 1279)	565 - 580 (1246 - 1279)
		Total kg (lb)	1365 - 1420 (3010 - 3131)	1365 - 1420 (3010 - 3131)	1335 - 1380 (2944 - 3043)	1335 - 1380 (2944 - 3043)
	Gross Vehicle Weight	Front kg (lb)	915 (2017)	915 (2017)	915 (2017)	915 (2017)
		Rear kg (lb)	980 (2161)	980 (2161)	980 (2161)	980 (2161)
		Total kg (lb)	1895 (4178)	1895 (4178)	1895 (4178)	1895 (4178)
	Fuel Tank Capacity	ℓ (Imp gal.)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	Luggage Compartment Capacity	m³ (cu. ft.)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)
	Max. Speed	km / h (mph)	195 (121)	195 (121)	205 (127)	205 (127)
	Max. Cruising Speed	km / h (mph)	—	—	—	—
	Acceleration	0 to 100 km / h sec.	11.1	11.1	9.4	9.4
		0 to 400 m sec.	17.6	17.6	16.6	16.6
	Max. Permissible Speed	1st Gear km / h (mph)	63 (39)	63 (39)	56 (34)	56 (34)
		2nd Gear km / h (mph)	114 (71)	114 (71)	96 (59)	96 (59)
		3rd Gear km / h (mph)	177 (110)	177 (110)	149 (92)	149 (92)
		4th Gear km / h (mph)	—	—	193 (119)	193 (119)
	Min. Turning Radius	Tire m (ft.)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)
		Body m (ft.)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)
Engine	Engine Type		1AZ-FSE	1AZ-FSE	1AZ-FSE	1AZ-FSE
	Valve Mechanism		16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
	Bore x Stroke mm (in.)		86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)
	Displacement cm³ (cu. in.)		1998 (121.9)	1998 (121.9)	1998 (121.9)	1998 (121.9)
	Compression Ratio		11.0	11.0	11.0	11.0
	Carburetor Type or Injection Pump Type (Diesel)		EFI	EFI	EFI	EFI
	Research Octane No. or Cetane No. (Diesel)		95 or higher	95 or higher	95 or higher	95 or higher
	Max. Output (EEC) kW / rpm		108 / 5700	108 / 5700	108 / 5700	108 / 5700
	Max. Torque (EEC) N·m / rpm		196 / 4000	196 / 4000	196 / 4000	196 / 4000
	Battery Capacity (SHR) Voltage & Amp. hr.		12 - 48	12 - 48	12 - 32, 48*3	12 - 32, 48*3
Engine Electric	Alternator Output Watts		1200	1200	1200	1200
	Starter Output kW		1.6	1.6	1.3, 1.6*3	1.3, 1.6*3
	Clutch Type		—	—	Dry, Single Plate	Dry, Single Plate
	Transaxle Type		U241E*4	U241E*4	E354	E354
	Transmission Gear Ratio	In First	3.943	3.943	3.538	3.538
		In Second	2.197	2.197	2.054	2.054
		In Third	1.413	1.413	1.333	1.333
		In Fourth	1.020	1.020	1.028	1.028
		In Fifth	—	—	0.820	0.820
		In Reverse	3.145	3.145	3.583	3.583
	Counter Gear Ratio		—	—	—	—
	Differential Gear Ratio (Final)		2.923	2.923	3.684	3.684
	Brake Type	Front	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
		Rear	Solid Disc	Solid Disc	Solid Disc	Solid Disc
Chassis	Parking Brake Type		Drum	Drum	Drum	Drum
	Brake Booster Type and Size in.		Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	Proportioning Valve Type		—	—	—	—
	Suspension Type	Front	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
		Rear	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	Stabilizer Bar	Front	STD	STD	STD	STD
		Rear	STD	STD	STD	STD
	Steering Gear Type		Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	Steering Gear Ratio (Overall)		16.1	16.1	16.1	16.1
	Power Steering Type		Integral Type	Integral Type	Integral Type	Integral Type

*1: With Sun Roof

*4: Snow Mord Type

*2: Rough Road Pack

*3: Option

EUROPE					
5-Door Liftback					
MID ELEGANT		ENTRY		MID TECHNICAL	
AZT250R-ALPGHW	AZT250L-ALPGHW	CDT250R-ALMNYW	CDT250L-ALMNYW	CDT250R-ALMEYW	CDT250L-ALMEYW
5 4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)	4630 (182.3)
1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)	1480 (58.3)
2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
10 1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
15 1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)	1025 (40.4)
135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 20.1°*2
800 - 835 (1764 - 1841)	800 - 835 (1764 - 1841)	845 - 895 (1863 - 1973)	845 - 895 (1863 - 1973)	845 - 895 (1863 - 1973)	845 - 895 (1863 - 1973)
565 - 585 (1246 - 1290)	565 - 585 (1246 - 1290)	555 - 565 (1224 - 1246)	555 - 565 (1224 - 1246)	555 - 570 (1224 - 1257)	555 - 570 (1224 - 1257)
1365 - 1420 (3010 - 3131)	1365 - 1420 (3010 - 3131)	1400 - 1460 (3087 - 3219)	1400 - 1460 (3087 - 3219)	1400 - 1465 (3087 - 3230)	1400 - 1465 (3087 - 3230)
915 (201.7)	915 (201.7)	985 (217.2)	985 (217.2)	985 (217.2)	985 (217.2)
980 (216.1)	980 (216.1)	985 (217.2)	985 (217.2)	985 (217.2)	985 (217.2)
1895 (417.8)	1895 (417.8)	1970 (434.4)	1970 (434.4)	1970 (434.4)	1970 (434.4)
25 60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)	0.510 (18.0)
195 (121)	195 (121)	195 (121)	195 (121)	195 (121)	195 (121)
—	—	—	—	—	—
11.1	11.1	11.2	11.2	11.2	11.2
30 17.6	17.6	17.7	17.7	17.7	17.7
63 (39)	63 (39)	45 (27)	45 (27)	45 (27)	45 (27)
114 (71)	114 (71)	84 (52)	84 (52)	84 (52)	84 (52)
177 (110)	177 (110)	128 (79)	128 (79)	128 (79)	128 (79)
—	—	176 (109)	176 (109)	176 (109)	176 (109)
35 5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)
5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)
1AZ-FSE	1AZ-FSE	1CD-FTV	1CD-FTV	1CD-FTV	1CD-FTV
16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	82.2 x 94.0 (3.24 x 3.70)	82.2 x 94.0 (3.24 x 3.70)	82.2 x 94.0 (3.24 x 3.70)	82.2 x 94.0 (3.24 x 3.70)
40 1998 (121.9)	1998 (121.9)	1995 (121.7)	1995 (121.7)	1995 (121.7)	1995 (121.7)
11.0	11.0	17.8	17.8	17.8	17.8
EFI	EFI	Common-Rail Type	Common-Rail Type	Common-Rail Type	Common-Rail Type
95 or higher	95 or higher	48 or higher	48 or higher	48 or higher	48 or higher
108 / 5700	108 / 5700	85 / 3600	85 / 3600	85 / 3600	85 / 3600
45 196 / 4000	196 / 4000	280 / 2000 - 2200	280 / 2000 - 2200	280 / 2000 - 2200	280 / 2000 - 2200
12 - 48	12 - 48	12 - 60	12 - 60	12 - 60	12 - 60
1200	1200	1200	1200	1200	1200
1.6	1.6	2.0	2.0	2.0	2.0
—	—	Dry, Single Plate	Dry, Single Plate	Dry, Single Plate	Dry, Single Plate
50 U241E**4	U241E**4	E357	E357	E357	E357
3.943	3.943	3.538	3.538	3.538	3.538
2.197	2.197	1.913	1.913	1.913	1.913
1.413	1.413	1.258	1.258	1.258	1.258
1.020	1.020	0.918	0.918	0.918	0.918
55 —	—	0.690	0.690	0.690	0.690
3.145	3.145	3.583	3.583	3.583	3.583
—	—	—	—	—	—
2.923	2.923	3.684	3.684	3.684	3.684
Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
60 Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc
Drum	Drum	Drum	Drum	Drum	Drum
Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
—	—	—	—	—	—
MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
65 Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
STD	STD	STD	STD	STD	STD
STD	STD	STD	STD	STD	STD
Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
16.1	16.1	16.1	16.1	16.1	16.1
70 Integral Type	Integral Type	Integral Type	Integral Type	Integral Type	Integral Type

Item		Area	EUROPE			
Body Type			5-Door Liftback		5-Door Wagon	
Vehicle Grade			MID ELEGANT		ENTRY	
Model Code			CDT250R-ALMGYW	CDT250L-ALMGYW	ZZT250L-AWMNKKW	ZZT251R-AWMNKKW
Major Dimension & Vehicle Weights	Overall	Length mm (in.)	4630 (182.3)	4630 (182.3)	4700 (185.0)	4700 (185.0)
		Width mm (in.)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
		Height mm (in.)	1480 (58.3)	1480 (58.3)	1525 (60.0)	1525 (60.0)
	Wheel Base	mm (in.)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	Tread	Front mm (in.)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
		Rear mm (in.)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	Room	Length mm (in.)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
		Width mm (in.)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
		Height mm (in.)	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	Overhang	Front mm (in.)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
		Rear mm (in.)	1025 (40.4)	1025 (40.4)	1095 (43.1)	1095 (43.1)
	Min. Running Ground Clearance mm (in.)		135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	Angle of Approach degrees		13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	Angle of Departure degrees		18.7°, 20.1°*2	18.7°, 20.1°*2	18.7°, 19.2°*2	18.7°, 19.2°*2
Performance	Curb Weight	Front kg (lb)	845 - 895 (1863 - 1973)	845 - 895 (1863 - 1973)	715 - 750 (1576 - 1653)	715 - 750 (1576 - 1653)
		Rear kg (lb)	555 - 570 (1224 - 1257)	555 - 570 (1224 - 1257)	580 - 590 (1279 - 1301)	580 - 595 (1279 - 1312)
		Total kg (lb)	1400 - 1465 (3087 - 3230)	1400 - 1465 (3087 - 3230)	1295 - 1340 (2855 - 2954)	1295 - 1345 (2855 - 2965)
	Gross Vehicle Weight	Front kg (lb)	985 (2172)	985 (2172)	840 (1852)	840 (1852)
		Rear kg (lb)	985 (2172)	985 (2172)	980 (2161)	980 (2161)
		Total kg (lb)	1970 (4344)	1970 (4344)	1820 (4013)	1820 (4013)
	Fuel Tank Capacity ℓ (Imp. gal.)		60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	Luggage Compartment Capacity m³ (cu. ft.)		0.510 (18.0)	0.510 (18.0)	0.520 (18.4)	0.520 (18.4)
	Max. Speed km/h (mph)		195 (121)	195 (121)	185 (115)	195 (121)
	Max. Cruising Speed km/h (mph)		—	—	—	—
Engine	Acceleration	0 to 100 km/h sec.	11.2	11.2	12.2	10.5
		0 to 400 m sec.	17.7	17.7	18.2	17.2
	Max. Permissible Speed	1st Gear km/h (mph)	45 (27)	45 (27)	47 (29)	51 (31)
		2nd Gear km/h (mph)	84 (52)	84 (52)	87 (54)	95 (59)
		3rd Gear km/h (mph)	128 (79)	128 (79)	127 (78)	139 (86)
		4th Gear km/h (mph)	176 (109)	176 (109)	172 (106)	176 (109)
	Min. Turning Radius	Tire m (ft.)	5.6 (18.4)	5.6 (18.4)	5.4 (17.7)	5.4 (17.7)
		Body m (ft.)	5.995 (19.7)	5.995 (19.7)	5.75 (18.9)	5.75 (18.9)
	Engine Type		1CD-FTV	1CD-FTV	3ZZ-FE	1ZZ-FE
	Valve Mechanism		16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
Engine Electric	Bore x Stroke mm (in.)		82.2 x 94.0 (3.24 x 3.70)	82.2 x 94.0 (3.24 x 3.70)	79.0 x 81.5 (3.11 x 3.21)	79.0 x 91.5 (3.11 x 3.60)
	Displacement cm³ (cu. in.)		1995 (121.7)	1995 (121.7)	1598 (97.5)	1794 (109.5)
	Compression Ratio		17.8	17.8	10.5	10.0
	Carburetor Type or Injection Pump Type (Diesel)		Common-Rail Type	Common-Rail Type	EFI	EFI
	Research Octane No. or Cetane No. (Diesel)		48 or higher	48 or higher	95 or higher	95 or higher
	Max. Output (EEC) kW/rpm		85/3600	85/3600	81/6000	95/6000
	Max. Torque (EEC) N·m/rpm		280/2000 - 2200	280/2000 - 2200	150/3800	170/4200
	Battery Capacity (SHR) Voltage & Amp. hr.		12 - 60	12 - 60	12 - 32, 48*3	12 - 32, 48*3
	Alternator Output Watts		1200	1200	960, 1080*3	960, 1080*3
	Starter Output kW		2.0	2.0	1.3	1.3
Chassis	Clutch Type		Dry, Single Plate	Dry, Single Plate	Dry, Single Plate	Dry, Single Plate
	Transaxle Type		E357	E357	C50	C250
	Transmission Gear Ratio	In First	3.538	3.538	3.545	3.545
		In Second	1.913	1.913	1.904	1.904
		In Third	1.258	1.258	1.310	1.310
		In Fourth	0.918	0.918	0.969	1.031
		In Fifth	0.690	0.690	0.815	0.815
	In Reverse		3.583	3.583	3.250	3.250
	Counter Gear Ratio		—	—	—	—
	Differential Gear Ratio (Final)		3.684	3.684	4.312	3.941
	Brake Type	Front	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
		Rear	Solid Disc	Solid Disc	Solid Disc	Solid Disc
	Parking Brake Type		Drum	Drum	Drum	Drum
	Brake Booster Type and Size in.		Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	Proportioning Valve Type		—	—	—	—
	Suspension Type	Front	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
		Rear	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	Stabilizer Bar	Front	STD	STD	STD	STD
		Rear	STD	STD	STD	STD
	Steering Gear Type		Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	Steering Gear Ratio (Overall)		16.1	16.1	17.5	17.5
	Power Steering Type		Integral Type	Integral Type	EPS	EPS

*1: With Sun Roof

*2: Rough Road Pack

*3: Option

EUROPE					
5-Door Wagon					
	ENTRY		MID TECHNICAL		MID ELEGANT
	ZZT251L-AWPNKW	ZZT251L-AWPNKW	ZZT251R-AWMEKW	ZZT251L-AWMEKW	ZZT251R-AWMGKW
5	4700 (185.0)	4700 (185.0)	4700 (185.0)	4700 (185.0)	4700 (185.0)
	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
	1525 (60.0)	1525 (60.0)	1525 (60.0)	1525 (60.0)	1525 (60.0)
	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
10	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
15	1095 (43.1)	1095 (43.1)	1095 (43.1)	1095 (43.1)	1095 (43.1)
	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2
	715 - 750 (1576 - 1653)	745 - 775 (1642 - 1709)	715 - 750 (1576 - 1653)	715 - 750 (1576 - 1653)	715 - 750 (1576 - 1653)
20	580 - 595 (1279 - 1312)	580 - 600 (1279 - 1323)	580 - 595 (1279 - 1312)	580 - 595 (1279 - 1312)	580 - 595 (1279 - 1312)
	1295 - 1345 (2855 - 2965)	1325 - 1375 (2921 - 3032)	1295 - 1345 (2855 - 2965)	1295 - 1345 (2855 - 2965)	1295 - 1345 (2855 - 2965)
	840 (1852)	840 (1852)	840 (1852)	840 (1852)	840 (1852)
	980 (2161)	980 (2161)	980 (2161)	980 (2161)	980 (2161)
	1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)	1820 (4013)
25	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
	195 (121)	180 (112)	195 (121)	195 (121)	195 (121)
	—	—	—	—	—
	10.5	11.8	10.5	11.8	10.5
30	17.2	18.0	17.2	18.0	17.2
	51 (31)	59 (36)	51 (31)	59 (36)	51 (31)
	95 (59)	109 (67)	95 (59)	109 (67)	95 (59)
	139 (86)	169 (105)	139 (86)	169 (105)	139 (86)
	176 (109)	—	176 (109)	—	176 (109)
35	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)	5.4 (17.7)
	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)	5.75 (18.9)
	1ZZ-FE	1ZZ-FE	1ZZ-FE	1ZZ-FE	1ZZ-FE
	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
40	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)
	1794 (109.5)	1794 (109.5)	1794 (109.5)	1794 (109.5)	1794 (109.5)
	10.0	10.0	10.0	10.0	10.0
	EFI	EFI	EFI	EFI	EFI
	95 or higher	95 or higher	95 or higher	95 or higher	95 or higher
	95 / 6000	95 / 6000	95 / 6000	95 / 6000	95 / 6000
45	170 / 4200	170 / 4200	170 / 4200	170 / 4200	170 / 4200
	12 - 32, 48*2	12 - 32, 48*2	12 - 32, 48*2	12 - 32, 48*2	12 - 32, 48*2
	960, 1080*2	960, 1080*2	960, 1080*2	960, 1080*2	960, 1080*2
	1.3	1.3	1.3	1.3	1.3
	Dry, Single Plate	—	Dry, Single Plate	—	Dry, Single Plate
50	C250	U341E	C250	U341E	C250
	3.545	2.847	3.545	2.847	3.545
	1.904	1.552	1.904	1.552	1.904
	1.310	1.000	1.310	1.000	1.310
	1.031	0.700	1.031	0.700	1.031
55	0.815	—	0.815	—	0.815
	3.250	2.343	3.250	2.343	3.250
	—	—	—	—	—
	3.941	4.237	3.941	4.237	3.941
	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
60	Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc
	Drum	Drum	Drum	Drum	Drum
	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	—	—	—	—	—
	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
65	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	STD	STD	STD	STD	STD
	STD	STD	STD	STD	STD
	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	17.5	17.5	17.5	17.5	17.5
70	EPS	EPS	EPS	EPS	EPS

Item		Area	EUROPE			
Body Type			5-Door Wagon			
Vehicle Grade			MID ELEGANT		MID TECHNICAL	MID ELEGANT
Model Code			ZZT251L-AWVGKW	ZZT251L-AWPGKW	AZT250L-AWPEKW	AZT250L-AWPGKW
Major Dimension & Vehicle Weights	Overall	Length mm (in.)	4700 (185.0)	4700 (185.0)	4700 (185.0)	4700 (185.0)
		Width mm (in.)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
		Height mm (in.)	1525 (60.0)	1525 (60.0)	1525 (60.0)	1525 (60.0)
	Wheel Base	mm (in.)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	Tread	Front mm (in.)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
		Rear mm (in.)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	Room	Length mm (in.)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
		Width mm (in.)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
		Height mm (in.)	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	Overhang	Front mm (in.)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
		Rear mm (in.)	1095 (43.1)	1095 (43.1)	1095 (43.1)	1095 (43.1)
	Min. Running Ground Clearance	mm (in.)	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	Angle of Approach	degrees	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	Angle of Departure	degrees	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2
Performance	Curb Weight	Front kg (lb)	715 - 750 (1576 - 1653)	745 - 775 (1642 - 1709)	795 - 830 (1753 - 1830)	795 - 830 (1753 - 1830)
		Rear kg (lb)	580 - 595 (1279 - 1312)	580 - 600 (1279 - 1323)	570 - 590 (1257 - 1301)	570 - 590 (1257 - 1301)
		Total kg (lb)	1295 - 1345 (2855 - 2965)	1325 - 1375 (2921 - 3032)	1365 - 1420 (3009 - 3131)	1365 - 1420 (3010 - 3131)
	Gross Vehicle Weight	Front kg (lb)	840 (1852)	840 (1852)	915 (2017)	915 (2017)
		Rear kg (lb)	980 (2161)	980 (2161)	975 (2150)	975 (2150)
		Total kg (lb)	1820 (4013)	1820 (4013)	1890 (4167)	1890 (4167)
	Fuel Tank Capacity	ℓ (Imp gal.)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	Luggage Compartment Capacity	m³ (cu. ft.)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
	Max. Speed	km / h (mph)	195 (121)	180 (112)	185 (115)	185 (115)
	Max. Cruising Speed	km / h (mph)	—	—	—	—
Engine	Acceleration	0 to 100 km / h sec.	10.5	11.8	11.3	11.3
		0 to 400 m sec.	17.2	18.0	17.7	17.7
	Max. Permissible Speed	1st Gear km / h (mph)	51 (31)	59 (36)	62 (38)	62 (38)
		2nd Gear km / h (mph)	95 (59)	109 (67)	111 (68)	111 (68)
		3rd Gear km / h (mph)	139 (86)	169 (105)	174 (108)	174 (108)
		4th Gear km / h (mph)	176 (109)	—	—	—
	Min. Turning Radius	Tire m (ft.)	5.4 (17.7)	5.4 (17.7)	5.6 (18.4)	5.6 (18.4)
		Body m (ft.)	5.75 (18.9)	5.75 (18.9)	5.995 (19.7)	5.995 (19.7)
	Engine Type		1ZZ-FE	1ZZ-FE	1AZ-FE	1AZ-FE
	Valve Mechanism		16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
Engine Electric	Bore x Stroke	mm (in.)	79.0 x 91.5 (3.11 x 3.60)	79.0 x 91.5 (3.11 x 3.60)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)
	Displacement	cm³ (cu. in.)	1794 (109.5)	1794 (109.5)	1998 (121.9)	1998 (121.9)
	Compression Ratio		10.0	10.0	9.8	9.8
	Carburetor Type or Injection Pump Type (Diesel)		EFI	EFI	EFI	EFI
	Research Octane No. or Cetane No. (Diesel)		95 or higher	95 or higher	95 or higher	95 or higher
	Max. Output (EEC)	kW / rpm	95 / 6000	95 / 6000	108 / 6000	108 / 6000
	Max. Torque (EEC)	N·m / rpm	170 / 4200	170 / 4200	192 / 4000	192 / 4000
	Battery Capacity (5HR)	Voltage & Amp. hr.	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3	12 - 32, 48*3
	Alternator Output	Watts	960, 1080*3	960, 1080*3	1200	1200
	Starter Output	kW	1.3	1.3	1.3	1.3
Chassis	Clutch Type		Dry, Single Plate	—	—	—
	Transaxle Type		C250	U341E	U241E	U241E
	Transmission Gear Ratio	In First	3.545	2.847	3.943	3.943
		In Second	1.904	1.552	2.197	2.197
		In Third	1.310	1.000	1.413	1.413
		In Fourth	1.031	0.700	1.020	1.020
		In Fifth	0.815	—	—	—
	Counter Gear Ratio		—	—	—	—
			3.941	4.237	2.923	2.923
	Differential Gear Ratio (Final)		3.941	4.237	2.923	2.923
	Brake Type	Front	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
		Rear	Solid Disc	Solid Disc	Solid Disc	Solid Disc
	Parking Brake Type		Drum	Drum	Drum	Drum
	Brake Booster Type and Size	in.	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	Proportioning Valve Type		—	—	—	—
	Suspension Type	Front	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
		Rear	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	Stabilizer Bar	Front	STD	STD	STD	STD
		Rear	STD	STD	STD	STD
	Steering Gear Type		Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	Steering Gear Ratio (Overall)		17.5	17.5	16.1	16.1
	Power Steering Type		EPS	EPS	Integral Type	Integral Type

*1: With Sun Roof

*4: Snow Mord Type

*2: Rough Road Pack

*3: Option

EUROPE						
5-Door Wagon						
MID TECHNICAL				MID ELEGANT		
AZT250R-AWMEHW	AZT250L-AWMEHW	AZT250R-AWPEHW	AZT250L-AWPEHW	AZT250R-AWMGHW	AZT250L-AWMGHW	
5 4700 (185.0)	4700 (185.0)	4700 (185.0)	4700 (185.0)	4700 (185.0)	4700 (185.0)	
1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	
1525 (60.0)	1525 (60.0)	1525 (60.0)	1525 (60.0)	1525 (60.0)	1525 (60.0)	
2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	
1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	
10 1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	
2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	
1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	
1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	
910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	
15 1095 (43.1)	1095 (43.1)	1095 (43.1)	1095 (43.1)	1095 (43.1)	1095 (43.1)	
135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	
13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	
18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2	
770 - 800 (1698 - 1764)	770 - 800 (1698 - 1764)	800 - 825 (1764 - 1819)	800 - 825 (1764 - 1819)	770 - 800 (1698 - 1764)	770 - 800 (1698 - 1764)	
585 - 600 (1290 - 1323)	585 - 600 (1290 - 1323)	585 - 600 (1290 - 1323)	585 - 600 (1290 - 1323)	585 - 600 (1290 - 1323)	585 - 600 (1290 - 1323)	
1355 - 1400 (2988 - 3087)	1355 - 1400 (2988 - 3087)	1385 - 1420 (3054 - 3131)	1385 - 1420 (3054 - 3131)	1355 - 1400 (2988 - 3087)	1355 - 1400 (2988 - 3087)	
915 (2017)	915 (2017)	915 (2017)	915 (2017)	915 (2017)	915 (2017)	
980 (2161)	980 (2161)	980 (2161)	980 (2161)	980 (2161)	980 (2161)	
1895 (4178)	1895 (4178)	1895 (4178)	1895 (4178)	1895 (4178)	1895 (4178)	
25 60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	
0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	
200 (124)	200 (124)	190 (118)	190 (118)	200 (124)	200 (124)	
—	—	—	—	—	—	
9.6	9.6	11.3	11.3	9.6	9.6	
16.7	16.7	17.7	17.7	16.7	16.7	
30 56 (34)	56 (34)	63 (39)	63 (39)	56 (34)	56 (34)	
96 (59)	96 (59)	114 (71)	114 (71)	96 (59)	96 (59)	
149 (92)	149 (92)	177 (110)	177 (110)	149 (92)	149 (92)	
193 (119)	193 (119)	—	—	193 (119)	193 (119)	
35 5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	
5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	
1AZ-FSE	1AZ-FSE	1AZ-FSE	1AZ-FSE	1AZ-FSE	1AZ-FSE	
16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	
86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	
40 1998 (121.9)	1998 (121.9)	1998 (121.9)	1998 (121.9)	1998 (121.9)	1998 (121.9)	
11.0	11.0	11.0	11.0	11.0	11.0	
EFI	EFI	EFI	EFI	EFI	EFI	
95 or higher	95 or higher	95 or higher	95 or higher	95 or higher	95 or higher	
110 / 5700	110 / 5700	110 / 5700	110 / 5700	110 / 5700	110 / 5700	
200 / 4000	200 / 4000	200 / 4000	200 / 4000	200 / 4000	200 / 4000	
45 12 - 32, 48*3	12 - 32, 48*3	12 - 48	12 - 48	12 - 32, 48*3	12 - 32, 48*3	
1200	1200	1200	1200	1200	1200	
1.3, 1.6*3	1.3, 1.6*3	1.6	1.6	1.3, 1.6*3	1.3, 1.6*3	
Dry, Single Plate	Dry, Single Plate	—	—	Dry, Single Plate	Dry, Single Plate	
50 E354	E354	U241E*4	U241E*4	E354	E354	
3.538	3.538	3.943	3.943	3.538	3.538	
2.045	2.045	2.197	2.197	2.054	2.054	
1.333	1.333	1.413	1.413	1.333	1.333	
1.028	1.028	1.020	1.020	1.028	1.028	
55 0.820	0.820	—	—	0.820	0.820	
3.583	3.583	3.145	3.145	3.583	3.583	
—	—	—	—	—	—	
3.684	3.684	2.923	2.923	3.684	3.684	
Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	
60 Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc	
Drum	Drum	Drum	Drum	Drum	Drum	
Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	
—	—	—	—	—	—	
MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	
65 Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	
STD	STD	STD	STD	STD	STD	
STD	STD	STD	STD	STD	STD	
Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	
16.1	16.1	16.1	16.1	16.1	16.1	
70 Integral Type	Integral Type	Integral Type	Integral Type	Integral Type	Integral Type	

Item		Area	EUROPE			
Body Type			5-Door Wagon			
Vehicle Grade			MID ELEGANT		ENTRY	
Model Code			AZT250R-AWPGHW	AZT250L-AWPGHW	CDT250R-AWMNYW	CDT250L-AWMNYW
Major Dimension & Vehicle Weights	Overall	Length mm (in.)	4700 (185.0)	4700 (185.0)	4700 (185.0)	4700 (185.0)
		Width mm (in.)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
		Height mm (in.)	1525 (60.0)	1525 (60.0)	1525 (60.0)	1525 (60.0)
	Wheel Base	mm (in.)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
	Tread	Front mm (in.)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
		Rear mm (in.)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	Room	Length mm (in.)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
		Width mm (in.)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
		Height mm (in.)	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	Overhang	Front mm (in.)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
		Rear mm (in.)	1095 (43.1)	1095 (43.1)	1095 (43.1)	1095 (43.1)
	Min. Running Ground Clearance	mm (in.)	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
	Angle of Approach	degrees	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	Angle of Departure	degrees	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2
Performance	Curb Weight	Front kg (lb)	800 - 825 (1764 - 1819)	800 - 825 (1764 - 1819)	850 - 900 (1874 - 1984)	850 - 900 (1874 - 1984)
		Rear kg (lb)	585 - 595 (1290 - 1312)	585 - 595 (1290 - 1312)	580 - 590 (1279 - 1301)	580 - 590 (1279 - 1301)
		Total kg (lb)	1385 - 1420 (3054 - 3131)	1385 - 1420 (3054 - 3131)	1430 - 1490 (3153 - 3285)	1430 - 1490 (3153 - 3285)
	Gross Vehicle Weight	Front kg (lb)	915 (2017)	915 (2017)	985 (2172)	985 (2172)
		Rear kg (lb)	980 (2161)	980 (2161)	985 (2172)	985 (2172)
		Total kg (lb)	1895 (4178)	1895 (4178)	1970 (4344)	1970 (4344)
	Fuel Tank Capacity	ℓ (Imp gal.)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	Luggage Compartment Capacity	m³ (cu. ft.)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
	Max. Speed	km / h (mph)	190 (118)	190 (118)	190 (118)	190 (118)
	Max. Cruising Speed	km / h (mph)	—	—	—	—
Engine	Acceleration	0 to 100 km / h sec.	11.3	11.3	11.4	11.4
		0 to 400 m sec.	17.7	17.7	17.8	17.8
	Max. Permissible Speed	1st Gear km / h (mph)	63 (39)	63 (39)	45 (27)	45 (27)
		2nd Gear km / h (mph)	114 (71)	114 (71)	84 (52)	84 (52)
		3rd Gear km / h (mph)	177 (110)	177 (110)	128 (79)	128 (79)
		4th Gear km / h (mph)	—	—	176 (109)	176 (109)
	Min. Turning Radius	Tire m (ft.)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)
		Body m (ft.)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)
	Engine Type		1AZ-FSE	1AZ-FSE	1CD-FTV	1CD-FTV
	Valve Mechanism		16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
Engine Electric	Bore x Stroke	mm (in.)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	82.2 x 94.0 (3.24 x 3.70)	82.2 x 94.0 (3.24 x 3.70)
	Displacement	cm³ (cu. in.)	1998 (121.9)	1998 (121.9)	1995 (121.7)	1995 (121.7)
	Compression Ratio		11.0	11.0	17.8	17.8
	Carburetor Type or Injection Pump Type (Diesel)		EFI	EFI	Common-Rail Type	Common-Rail Type
	Research Octane No. or Cetane No. (Diesel)		95 or higher	95 or higher	48 or higher	48 or higher
	Max. Output (EEC)	kW / rpm	108 / 5700	108 / 5700	85 / 3600	85 / 3600
	Max. Torque (EEC)	Nm / rpm	196 / 4000	196 / 4000	280 / 2000 - 2200	280 / 2000 - 2200
	Battery Capacity (5HR)	Voltage & Amp. hr.	12 - 48	12 - 48	12 - 60	12 - 60
	Alternator Output	Watts	1200	1200	1200	1200
	Starter Output	kW	1.6	1.6	2.0	2.0
Chassis	Clutch Type		—	—	Dry, Single Plate	Dry, Single Plate
	Transaxle Type		U241E*4	U241E*4	E357	E357
	Transmission Gear Ratio	In First	3.943	3.943	3.538	3.538
		In Second	2.197	2.197	1.913	1.913
		In Third	1.413	1.413	1.258	1.258
		In Fourth	1.020	1.020	0.918	0.918
		In Fifth	—	—	0.690	0.690
		In Reverse	3.145	3.145	3.583	3.583
	Counter Gear Ratio		—	—	—	—
	Differential Gear Ratio (Final)		2.923	2.923	3.684	3.684
	Brake Type	Front	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
		Rear	Solid Disc	Solid Disc	Solid Disc	Solid Disc
	Parking Brake Type		Drum	Drum	Drum	Drum
	Brake Booster Type and Size	in.	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	Proportioning Valve Type		—	—	—	—
	Suspension Type	Front	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
		Rear	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	Stabilizer Bar	Front	STD	STD	STD	STD
		Rear	STD	STD	STD	STD
	Steering Gear Type		Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
	Steering Gear Ratio (Overall)		16.1	16.1	16.1	16.1
	Power Steering Type		Integral Type	Integral Type	Integral Type	Integral Type

*1: With Sun Roof

*4: Snow Mord Type

*2: Rough Road Pack

*3: Option

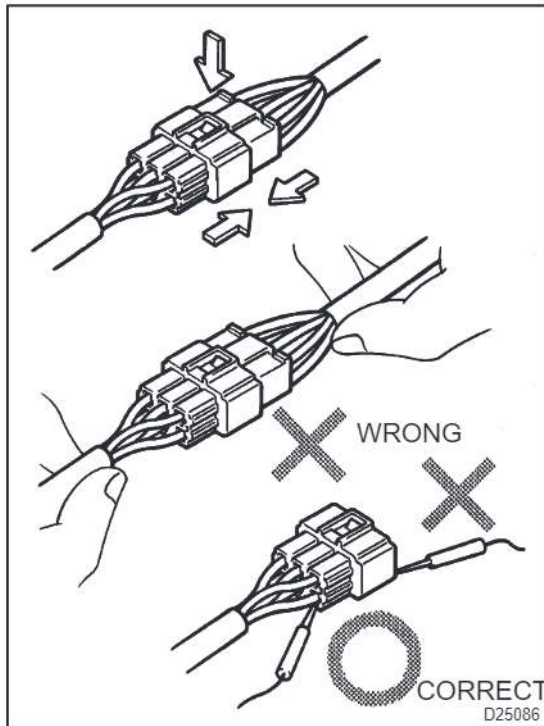
	EUROPE		GENERAL COUNTRIES		
	5-Door Wagon		4-Door Sedan		
	MID TECHNICAL	MID ELEGANT	ENTRY		
	CDT250L-AWMEYW	CDT250L-AWMEYW	AZT250L-AEMNK	AZT250L-AEPNK	AZT250L-AEPNK
5	4700 (185.0)	4700 (185.0)	4630 (182.3)	4630 (182.3)	4630 (182.3)
	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)	1760 (69.3)
	1525 (60.0)	1525 (60.0)	1480 (58.3)	1480 (58.3)	1480 (58.3)
	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)	2700 (106.3)
10	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)	1506 (59.3)
	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)	1510 (59.4)
	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)	2090 (82.3)
	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)	1485 (58.5)
15	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1	1210 (47.6), 1160 (45.7)*1
	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)	910 (35.8)
	1095 (43.1)	1095 (43.1)	1025 (40.4)	1025 (40.4)	1025 (40.4)
	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2	135 (5.3), 155 (6.1)*2
20	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2	13.1°, 14.5°*2
	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2	18°, 19.2°*2
	860 - 900 (1896 - 1984)	860 - 900 (1896 - 1984)	750 - 780 (1653 - 1720)	780 - 810 (1720 - 1786)	780 - 810 (1720 - 1786)
	580 - 595 (1279 - 1312)	580 - 595 (1279 - 1312)	525 - 530 (1157 - 1168)	525 - 530 (1157 - 1168)	525 - 530 (1157 - 1168)
25	1440 - 1495 (3175 - 3296)	1440 - 1495 (3175 - 3296)	1275 - 1310 (2810 - 2888)	1305 - 1340 (2877 - 2954)	1305 - 1340 (2877 - 2954)
	985 (2172)	985 (2172)	890 (1962)	890 (1962)	890 (1962)
	985 (2172)	985 (2172)	915 (2017)	915 (2017)	915 (2017)
	1970 (4343)	1970 (4343)	1805 (3979)	1805 (3979)	1805 (3979)
30	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)	60 (15.9, 13.2)
	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)	0.520 (18.4)
	190 (118)	190 (118)	195 (121)	190 (121)	190 (121)
	—	—	—	—	—
35	11.4	11.4	10.0	11.8	11.8
	17.8	17.8	17.1	18.0	18.0
	45 (27)	45 (27)	51 (31)	62 (38)	62 (38)
	84 (52)	84 (52)	88 (54)	111 (68)	111 (68)
40	128 (79)	128 (79)	136 (86)	174 (108)	174 (108)
	176 (109)	176 (109)	177 (109)	—	—
	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)	5.6 (18.4)
	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)	5.995 (19.7)
45	1CD-FTV	1CD-FTV	1AZ-FE	1AZ-FE	1AZ-FE
	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC	16-Valve, DOHC
	82.2 x 94.0 (3.24 x 3.70)	82.2 x 94.0 (3.24 x 3.70)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)	86.0 x 86.0 (3.39 x 3.39)
	1995 (121.7)	1995 (121.7)	1998 (121.9)	1998 (121.9)	1998 (121.9)
50	17.8	17.8	9.5	9.5	9.5
	Common-Rail Type	Common-Rail Type	EFI	EFI	EFI
	48 or higher	48 or higher	95 or higher	95 or higher	95 or higher
	85 / 3600	85 / 3600	100 / 5600	100 / 5600	100 / 5600
55	280 / 2000 - 2200	280 / 2000 - 2200	190 / 4000	190 / 4000	190 / 4000
	12 - 60	12 - 60	12 - 32, 48*2	12 - 32, 48*2	12 - 32, 48*2
	1200	1200	1200	1200	1200
	2.0	2.0	1.3	1.3	1.3
60	Dry, Single Plate	Dry, Single Plate	Dry, Single Plate	—	—
	E357	E357	E354	U241E	U241E
	3.538	3.538	3.538	3.943	3.943
	1.913	1.913	2.045	2.197	2.197
65	1.258	1.258	1.333	1.413	1.413
	0.918	0.918	1.028	1.020	1.020
	0.690	0.690	0.820	—	—
	3.583	3.583	3.583	3.145	3.145
70	—	—	—	—	—
	3.684	3.684	3.944	3.120	3.120
	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc	Ventilated Disc
	Solid Disc	Solid Disc	Solid Disc	Solid Disc	Solid Disc
75	Drum	Drum	Drum	Drum	Drum
	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"	Tandem 8" + 9"
	—	—	—	—	—
	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.	MacPherson Strut.
80	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone	Double Wishbone
	STD	STD	STD	STD	STD
	STD	STD	STD	STD	STD
	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion	Rack and Pinion
85	16.1	16.1	16.1	16.1	16.1
	Integral Type	Integral Type	Integral Type	Integral Type	Integral Type

ELECTRONIC CIRCUIT INSPECTION PROCEDURE

1. BASIC INSPECTION

(a) RESISTANCE MEASURING CONDITION OF ELECTRONIC PARTS

- (1) Unless stated, all resistance is measured at an ambient temperature of 20°C (68°F). As the resistance may be outside the specifications if measured at high temperatures immediately after the vehicle has been running, measurements should be made when the engine has cooled down.



(b) HANDLING OF CONNECTOR

- (1) When removing the connector with lock, press the connector in the direction of the engagement and remove the lock by lightly pressing the lock claw.
- (2) When removing the connector, do not hold the harness, but hold the connector.
- (3) Before connecting the connector, check that there is no deformation, damage or missing terminals.
- (4) The connector with a lock should be securely connected until it makes a "click" sound.
- (5) When checking the connector with a Toyota electrical tester, check it from the backside (harness side) of the connector using a mini test lead.

NOTICE:

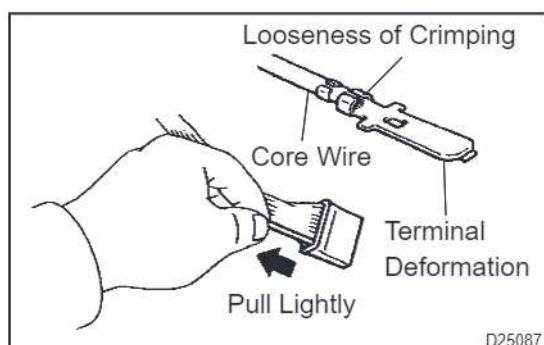
- ▲ As a water proof connector cannot be checked from the backside, check by connecting the sub-harness.
- ▲ Do not damage the terminals by moving the inserted tester needle.

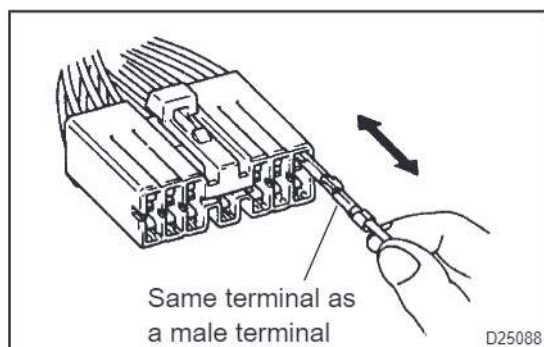
(c) CONNECTOR CHECKING POINTS

- (1) Checking when the connector is connected:
By holding the connector, check the inserted condition and locking efficiency (engaged condition).
- (2) Checking when the connector is removed:
Check by lightly pulling the wire harness (missing terminal, terminal crimping condition, core wire break).
Check visually for any rust, metal particles, water and bent terminals (rust, mixing of foreign object, terminal deformation).

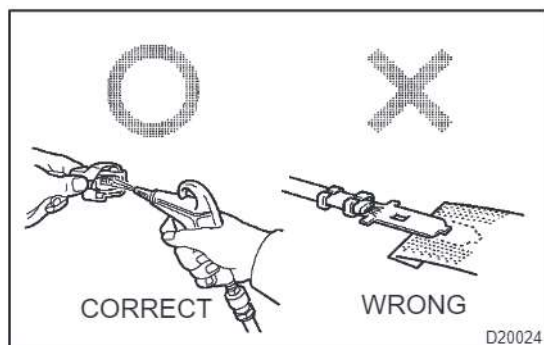
NOTICE:

When testing a gold-plated female terminal, always use a gold-plated male terminal.



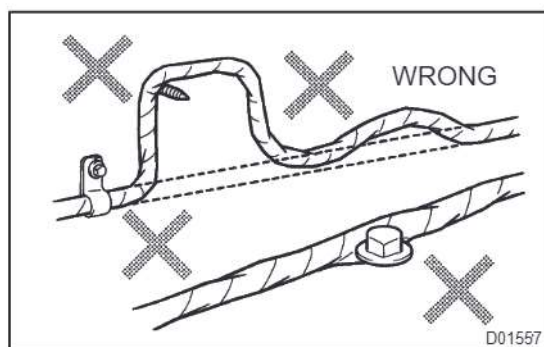


- (3) Checking of the contact pressure of the terminal:
Prepare a spare male terminal.
Insert it into a female terminal, check the engaged condition and sliding resistance.



(d) REPAIR METHOD OF CONNECTOR TERMINAL

- (1) If there is on the contact point, clean the contact point using an air gun or shop rag. However, never polish the contact point using sand paper as the platings may come off.
- (2) In case of abnormal contact pressure, replace the female terminal. However, if a male terminal is gold-plated (gold color), use gold-plated female terminal and if it is silver-plated (silver color), use silver-plated female terminal.

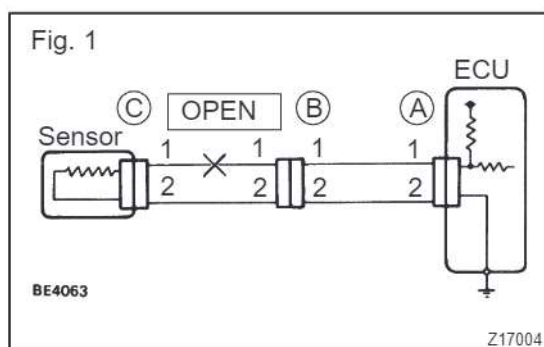


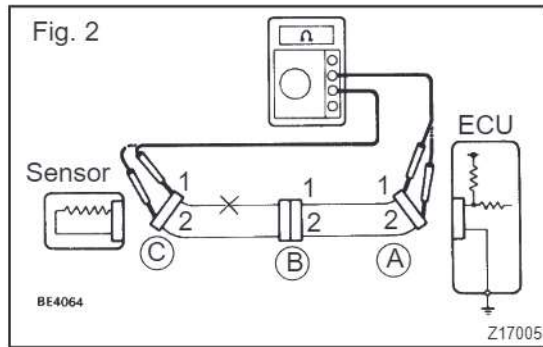
(e) HANDLING OF WIRE HARNESS

- (1) When removing the wire harness, check the positioning of the wiring and clamping before starting work in order to be able to restore it correctly.
- (2) Never twist, pull or loosen the wire harness more than necessary.
- (3) Never allow the wire harness to come into contact with a high-temperature, rotating, moving, vibrating or sharp (edge of the panel, tip of the screw, etc.) part.
- (4) When installing parts, never let the wire harness be interfered with.
- (5) Never cut or break the cover of the wire harness. If one is cut or broken, replace it or securely repair it with electrical tape.

2. CHECK OPEN CIRCUIT

- (a) For the open circuit in the wire harness in Fig. 1, perform a continuity check in step (b) or a voltage check in step (c) to locate the section.





(b) Check the continuity.

- (1) Disconnect connectors A and C and measure the resistance between them.

Resistance: 1 ϕ or less

HINT:

Measure the resistance while lightly shaking the wire harness vertically and horizontally.

In the case of Fig. 2:

Between terminal 1 of connector A and terminal 1 of connector C No continuity (open)

Between terminal 2 of connector A and terminal 2 of connector C Continuity

Therefore, the cause is an open circuit between terminal 1 of connector A and terminal 1 of connector C.

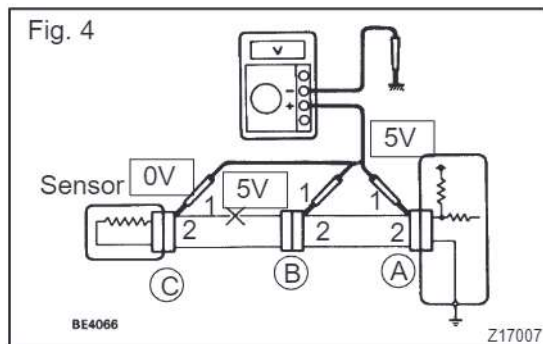
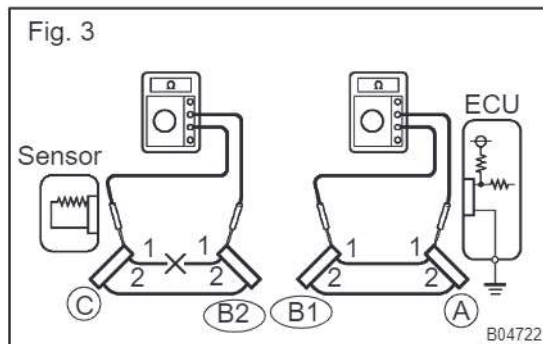
- (2) Disconnect connector B and measure the resistance between the connectors.

In the case of Fig. 3:

Between terminal 1 of connector A and terminal 1 of connector B1 Continuity

Between terminal 1 of connector B2 and terminal 1 of connector C No continuity (open)

Therefore, the cause is an open circuit between terminal 1 of connector B2 and terminal 1 of connector C.



(c) Check the voltage.

- (1) In a circuit in which voltage is applied (to the ECU connector terminal), an open circuit can be checked by conducting a voltage check.

As shown in Fig. 4, with each connector still connected, measure the voltage between the body ground and terminal 1 of connector A at the ECU 5 V output terminal, terminal 1 of connector B, and terminal 1 of connector C, in that order.

- (2) If the results are:

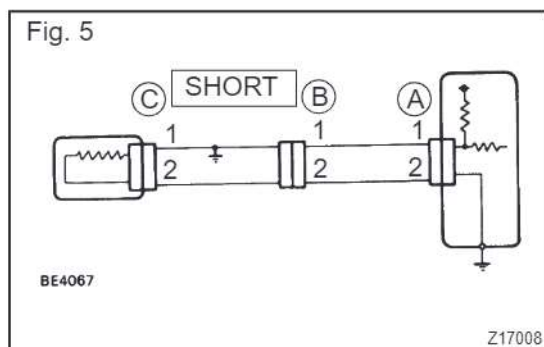
5 V: Between terminal 1 of connector A and body ground

5 V: Between terminal 1 of connector B and body ground

0 V: Between terminal 1 of connector C and body ground

Therefore, the cause is an open circuit in the wire harness between terminal 1 of connector B and terminal 1 of connector C.

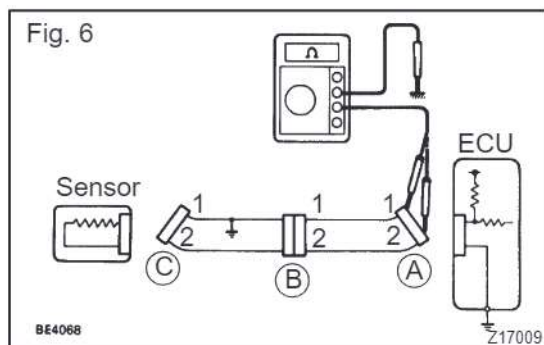
Fig. 5



3. CHECK SHORT CIRCUIT

- (a) If the wire harness is ground shorted as shown in Fig. 5, locate the section by conducting a continuity check with the body ground in step (b).

Fig. 6



- (b) Check the continuity with the body ground.
(1) Disconnect connectors A and C and measure the resistance between terminals 1 and 2 of connector A and the body ground.

Resistance: 10 k Ω or higher

HINT:

Measure the resistance while lightly shaking the wire harness vertically and horizontally.

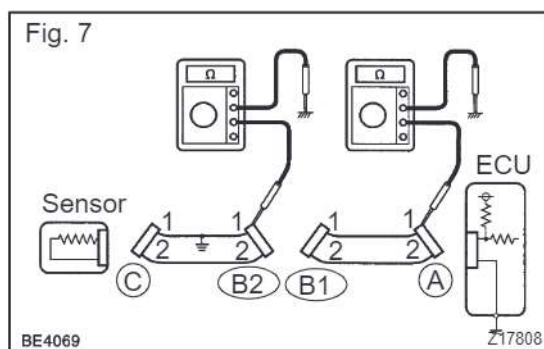
In the case of Fig. 6:

Between terminal 1 of connector A and body ground → Continuity (short)

Between terminal 2 of connector A and body ground → No continuity

Therefore, the cause is a short circuit between terminal 1 of connector A and terminal 1 of connector C.

Fig. 7



- (2) Disconnect connector B and measure the resistance between terminal 1 of connector A and the body ground, and terminal 1 of connector B2 and the body ground.

In the case of Fig. 7:

Between terminal 1 of connector A and body ground → No continuity

Between terminal 1 of connector B2 and body ground → Continuity (short)

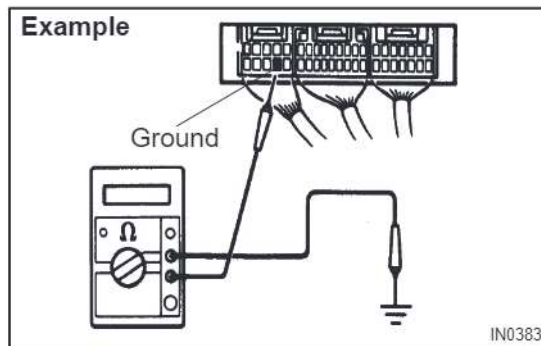
Therefore, the cause is a short circuit between terminal 1 of connector B2 and terminal 1 of connector C.

4. CHECK AND REPLACE ECU

NOTICE:

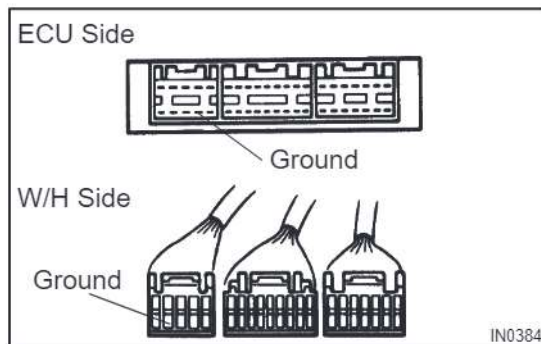
- ▲ Start an inspection of the connector from the back-side of the connector on the wire harness side with the connector connected to the ECU.
- ▲ When no measurement condition is specified, perform the inspection with the engine stopped and also the ignition switch ON.

- (a) First check the ECU ground circuit. If it is faulty, repair it. If it is normal, the ECU could be faulty. In this case, replace the ECU with one that functions normally and check if the symptoms appear.



- (1) Measure the resistance between the ECU ground terminal and body ground.

Resistance: 1 ϕ or less



- (2) Disconnect the ECU connector, check the ground terminals on the ECU side and wire harness side for bends and check the contact pressure.

HOW TO TROUBLESHOOT ECU CONTROLLED SYSTEMS

01096-13

GENERAL INFORMATION

There are many ECU controlled systems used in the AVENSIS. In general, ECU controlled system are considered to be very intricate and require a high level of technical knowledge and expert skill to troubleshoot. The fact is, however, that if you proceed by inspecting the circuits one by one, troubleshooting of these systems is not complex. If you have adequate understanding of the system and basic knowledge of electricity, the problem can be accurately diagnosed and fixed. This manual is designed based on the above principle to help service technicians perform accurate and effective troubleshooting, and is compiled for the following major ECU controlled systems:

The troubleshooting procedures are described on the following pages.

System	Page
1. SFI System [1ZZ-FE, 3ZZ-FE]	05-1
2. SFI System [1AZ-FE]	05-143
3. SFI System [1AZ-FSE]	05-290
4. ECD System [1CD-FTV]	05-523
5. ABS with EBD System	05-696
6. ABS with EBD & BA & TRC & VSC System	05-752
7. Electronic Controlled Automatic Transmission [ECT] [U241 (1AZ-FE)]	05-856
8. Electronic Controlled Automatic Transmission [ECT] [U241 (1AZ-FSE)]	05-915
9. Electronic Controlled Automatic Transmission [ECT] [U341]	05-980
10. Electronic Motor Power Steering System	05-1042
11. Air Conditioning System	05-1088
12. Combustion Type Power Heater System	05-1161
13. Supplemental Restraint System	05-1181
14. Audio System	05-1393
15. Navigation System	05-1435
16. Combination Meter	05-1497
17. Power Door Lock Control System	05-1534
18. Wireless Door Lock Control System	05-1568
19. Key Reminder Warning System	05-1586
20. Engine Immobiliser System	05-1599
21. Theft Deterrent System	05-1627
22. Multiplex Communication System	05-1654
23. Cruise Control System	05-1697

FOR USING HAND-HELD TESTER

- ▲ Before using the tester, the tester's operator manual should be read thoroughly.
- ▲ If the tester cannot communicate with the ECU controlled systems when you have connected the cable of tester to the DLC3, turned the ignition switch ON and operated the tester, there is a problem on the vehicle side or tester side.
 - (1) If the communication is normal when the tester is connected to another vehicle, inspect the diagnosis data link line (Bus line) or ECU power circuit of the vehicle.
 - (2) If the communication is still impossible when the tester is connected to another vehicle, the problem is probably in the tester itself, so perform the Self Test procedures outlined in the Tester Operator's Manual.

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

Carry out troubleshooting in accordance with the procedures on the following page. Here, only the basic procedures are shown. Details are provided in the Diagnostics Section, showing the most effective methods for each circuit. Confirm the troubleshooting procedures first for the relevant circuit before beginning troubleshooting of that circuit.

1 Vehicle brought to workshop



2 Customer problem analysis

- (a) Ask the customer about the conditions and environment when the problem occurred.



3 Symptom confirmation and DTC (and freeze frame data) check

- (a) Check the battery positive voltage.
Voltage: 11 – 14 V (Engine stopped)
- (b) Visually check the wire harness, connectors and fuses for open and short, etc.
- (c) Warm up the engine to the normal operating temperature.
- (d) Confirm the problem symptoms and conditions, and check for DTCs according to the related chart.

OK

Go to step 5

NG

4 DTC chart

- (a) Check the results obtained in step 3, then confirm the inspection procedures for the system or the part which should be checked using the DTC chart.



Go to step 6

5 Problem symptoms chart

- (a) Check the results obtained in step 3, then confirm the inspection procedures for the system or the part which should be checked using the problem symptoms table.



6 Circuit inspection or parts inspection

- (a) Confirm the circuit for the system or the part which should be checked using the problem symptoms table or the results obtained in step 4.



7 Repair

- (a) Repair the affected system or part in accordance with the instructions in step 6.



8	Confirmation test
----------	--------------------------

- (a) After completing repairs, confirm that the problem has been solved (If the problem does not recur, perform a confirmation test under the same conditions and in the same environment as when it occurred for the first time).



END

CUSTOMER PROBLEM ANALYSIS

HINT:

- In troubleshooting, the problem symptoms must be confirmed accurately, meaning that all preconceptions must be set aside in order to make an accurate judgement. To ascertain what the problem symptoms are, it is extremely important to ask the customer about the problem and conditions when it occurred.
- The following 5 items are important points in the problem analysis. Past problems which are thought to be unrelated and the repair history, etc. may also help in some cases. Therefore, as much information as possible should be gathered and its relationship with the problem symptoms should be correctly ascertained for use as reference in troubleshooting. A customer problem analysis table is provided for your use in the Diagnostics Section for each system.

Important Points with Customer Problem Analysis

- ▲What ——— Vehicle model, system name
- ▲When ——— Date, time, occurrence frequency
- ▲Where ——— Road conditions
- ▲Under what conditions? ——— Running conditions, driving conditions, weather conditions
- ▲How did it happen? ——— Problem symptoms

(Sample) Supplemental restraint system check sheet.

Supplemental Restraint System Check Sheet				Inspector's Name
Customer's Name		Registration No.		
		Registration Year	/ /	
		Frame No.		
Date Vehicle Brought In	/ /	Odometer Reading	km miles	
Date Problem First Occurred	/ /			
Weather	☐ Fine ☐ Cloudy ☐ Rainy ☐ Snowy ☐ Other			
Temperature	Approx.			
Vehicle Operation	☐ Starting ☐ Idling ☐ Driving [☐ Constant speed ☐ Acceleration ☐ Deceleration] ☐ Other			

SYMPTOM CONFIRMATION AND DIAGNOSTIC TROUBLE CODE

HINT:

- The diagnostic system in AVENSIS has various functions. The first function is the Diagnostic Trouble Code (DTC) Check, in which a malfunction in the signal circuits to the ECU is stored in code form in the ECU memory. Another function is the Input Signal Check, which checks if the signals from various switches are sent to the ECU correctly. By using these check functions, it is possible to quickly narrow down potential problem areas and troubleshooting can be performed effectively. The diagnostic functions are incorporated in the following systems in the AVENSIS.

System	Diagnostic Trouble Code Check	Input Signal Check (Sensor Check)	Diagnostic Test Mode (Active Test)
SFI System (1AZ-FE/1AZ-FSE, 1ZZ-FE/3ZZ-FE)	D (with Check Mode)	D	D
ECD System (1CD-FTV)	D (with Check Mode)	D	D
ABS with EBD System	D	D	D
ABS with EBD & BA & TRC & VSC System	D	D	D
Electronically Controlled Automatic Transmission [ECT]	D (with Check Mode)	D	
Air Conditioning System	D	D	
Supplemental Restraint System	D		
Audio System	D		
Power Door Lock Control System	D		D
Wireless Door Lock Control System	D		
Key Reminder Warning System	D		
Engine Immobiliser System	D		D
Theft Deterrent System	D		D
Multiplex Communication System	D		
Cruise Control System	D	D	

- In the DTC check, it is very important to determine whether the problem indicated by the DTC is still occurring or has occurred in the past but returned to normal at present. In addition during the problem symptom check, it a check must be made on whether the malfunction indicated by the DTC is directly related to the problem symptom or not. For this reason, the DTC should be checked before and after symptom confirmation to determine the current conditions. If this is not done, it may, depending on the case, result in unnecessary troubleshooting for systems that are operating normally. This would make more difficult to detect the problem area or to try to repair irrelevant areas. Therefore, always follow the procedures in the correct order and perform the DTC check.
- A flow chart showing how to proceed with troubleshooting using the diagnostic trouble code (DTC) check is shown on this page. This flow chart shows how to utilize the DTC check effectively. Then, by carefully checking the results, this chart indicates how to proceed either to the DTC troubleshooting or to the troubleshooting of the problem symptoms table.

1 DTC check



2 Make a note of DTCs displayed and then clear the memory



3 Symptom confirmation

a	Symptoms exist
b	No symptoms exist

a	Go to step 5
---	--------------

b

4	Simulation test using the symptom simulation methods
---	--

5	DTC check
---	-----------

a	DTC displayed
b	Normal code displayed

a	Troubleshooting of problem indicated by DTC
---	---

b

6	Symptom confirmation
---	----------------------

a	No symptoms exist
b	Symptoms exist

If a DTC is displayed in the initial DTC check, it indicates that a trouble may have occurred in a wire harness or connector in that circuit in the past. Therefore, check the wire harness and connectors ([See page 01-32](#)).

a	System normal
---	---------------

b

Troubleshooting of each problem symptom

The problem is still occurring in a place other than the diagnostic circuit (The DTC displayed first is either for a past problem or a secondary problem).

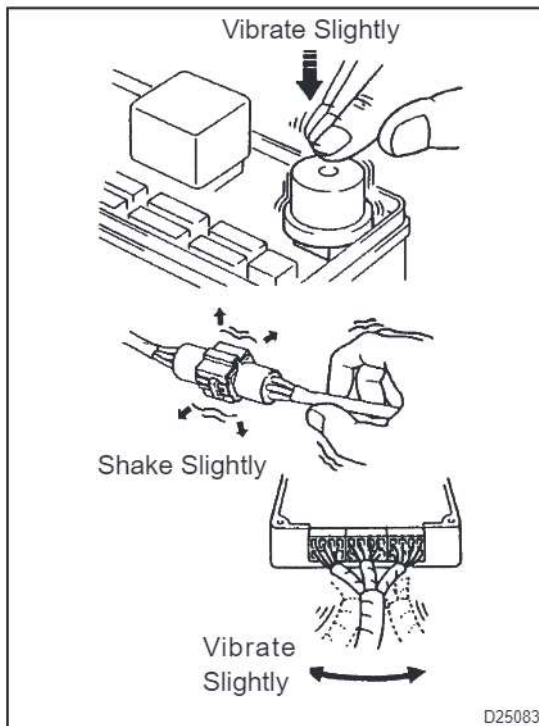
SYMPTOM SIMULATION

HINT:

The most difficult case in troubleshooting is when no symptoms occurs. In such cases, a thorough customer problem analysis must be carried out. Then the same or similar conditions and environment in which the problem occurred in the customer's vehicle should be simulated. No matter how much experience a technician has, or how skilled he may be, if he proceeds to troubleshoot without confirming the problem symptoms, he will tend to overlook something important in the repair operation and make a wrong guess somewhere, which will only lead to a standstill. For example, for a problem which only occurs when the engine is cold, or for a problem which occurs due to vibration caused by the road during driving, etc., the problem can never be determined when the engine is hot or when the vehicles is at a standstill. Since vibration, heat or water penetration (moisture) is a likely cause for the problem which is difficult to reproduce, the symptom simulation tests introduced here are effective measures in a point that the external causes are applied to the vehicle in a stationary condition.

Important points in the symptom simulation test:

In the symptom simulation test, the problem symptoms should be confirmed, and the problem area or parts must also be discovered. To do so, reduce the possible problem circuits according to the symptoms before starting this type of test and have the hand-held tester connected beforehand. After that, carry out the symptom simulation test, judging whether the circuit being tested is defective or normal and also confirming the problem symptoms at the same time. Refer to the problem symptoms table of each system to narrow down the possible causes of the symptom.



1. VIBRATION METHOD: When vibration seems to be the major cause.

(a) PART AND SENSOR

- (1) Apply slight vibration with your finger to the part of the sensor considered to be the problem cause and check whether the malfunction occurs.

HINT:

Applying strong vibration to relays may result in open relays.

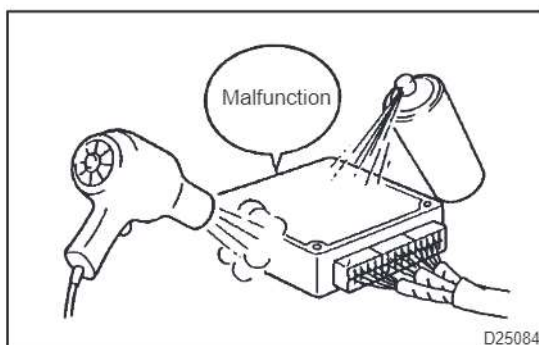
(b) CONNECTORS

- (1) Slightly shake the connector vertically and horizontally.

(c) WIRE HARNESS

- (1) Slightly shake the wire harness vertically and horizontally.

The connector joint and fulcrum of the vibration are the major areas that should be checked thoroughly.



2. HEAT METHOD: If the problem seems to occur when the area in question is heated.

- (a) Heat the component that is the possible cause of the malfunction with a hair dryer or similar object. Check if the malfunction occurs.

NOTICE:

- Do not heat the components to more than 60 °C (140 °F) (Temperature is limited to keep the components from being damaged).

- Do not apply heat directly to the parts in the ECU.



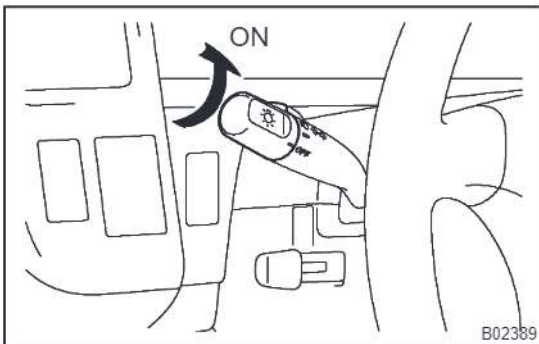
3. **WATER SPRINKLING METHOD:** When the malfunction seems to occur on a rainy day or in high-humidity.
- (a) Sprinkle water onto the vehicle and check if the malfunction occurs.

NOTICE:

- Never sprinkle water directly onto the engine compartment, but indirectly change the temperature and humidity by spraying a mist of water onto the radiator front surface.
- Never apply water directly onto the electronic components.

HINT:

If a vehicle is subject to water leakage, the leaking water may contaminate the ECU. When testing a vehicle with a water leakage problem, this factor must also be considered.



4. **OTHERS:** If the malfunction seems to occur when electrical load is excessive.
- (a) Turn on all the electrical equipment including the heater blower, headlights, rear window defogger, etc., and check if the malfunction occurs.

DIAGNOSTIC TROUBLE CODE CHART

The inspection procedures are shown in the table below. This table allows efficient and accurate troubleshooting using the diagnostic trouble codes displayed in the diagnostic trouble code chart. Proceed with troubleshooting in accordance with the inspection procedures listed in the diagnostic chart corresponding to the diagnostic trouble codes displayed. The diagnostic trouble code chart for the Supplemental Restraint System is shown below as an example.

▲ DTC No.

Indicates the diagnostic trouble code.

▲ Page or Instructions

Indicates the page where the inspection procedures for each circuit is to be found, or gives instructions for checking and repairs.

▲ Trouble Area

Indicates the suspect areas of the problem.

▲ Detection Item

Indicates the system or details of the problem.

DIAGNOSTIC TROUBLE CODE CHART

If a malfunction code is displayed during the DTC check, check the circuit for that code listed in the table below (Proceed to the page given for that circuit).

DTC No. (See page)	Detection Item	Trouble Area	SRS Warning Light
B0100/13 (05-119)	▲ Short in D squib circuit	▲ Steering wheel pad (squib) ▲ Spiral cable ▲ Airbag sensor assembly ▲ Wire harness	ON
B0101/14 (05-124)	▲ Open in D squib circuit	▲ Steering wheel pad (squib) ▲ Spiral cable ▲ Airbag sensor assembly ▲ Wire harness	ON
B0102/11 (05-128)	▲ Short in D squib circuit (to ground)	▲ Steering wheel pad (squib) ▲ Spiral cable ▲ Airbag sensor assembly ▲ Wire harness	ON
B0103/12 (05-132)	▲ Short in D squib circuit (to B+)	▲ Steering wheel pad (squib) ▲ Spiral cable ▲ Airbag sensor assembly ▲ Wire harness	ON
B0105/53 (05-136)	▲ Short in P squib circuit	▲ Front passenger airbag assembly (squib) ▲ Airbag sensor assembly ▲ Wire harness	ON
B0106/54	▲ Open in P squib circuit	▲ Front passenger airbag assembly (squib) ▲ Airbag sensor assembly ▲ Wire harness	
	▲ Short in P squib circuit (to Ground)	▲ Front passenger airbag assembly (squib) ▲ Airbag sensor assembly ▲ Wire harness	

PROBLEM SYMPTOMS TABLE

The suspected circuits or parts for each problem symptom are shown in the table below. Use this table to troubleshoot the problem when a Normal code is displayed in the diagnostic trouble code chart but the problem is still occurring. Numbers in the table indicate the order in which the circuits or parts should be checked.

HINT:

When the problem is not detected by the diagnostic system even though the problem symptom is present, it may be that the problem is occurring outside the detection range of the diagnostic system.

▲ Page

Indicates the page where the flow chart for each circuit is located.

▲ Circuit Inspection, Inspection Order

Indicates the circuit which needs to be checked for each problem symptom. Check in the order indicated by the numbers.

▲ Problem Symptom

▲ Circuit or Part Name

Indicates the circuit or part which needs to be checked.

PROBLEM SYMPTOMS TABLE

Proceed with troubleshooting of each circuit in the table below.

Symptom	Suspected Area	See page
1. With the ignition switch in ACC or ON position, the SRS warning light sometimes lights up after approx. 6 seconds have elapsed. 2. SRS warning light is always lit up even when ignition switch is in the LOCK position	1. SRS warning light circuit (Always lights up when ignition switch is in LOCK position.)	05-180
1. With the ignition switch in the ACC or ON position, the SRS warning light does not light up.	1. SRS warning light circuit (Does not light up when ignition switch is turned to ACC or ON.)	05-183
1. DTC is not displayed. 2. SRS warning light is always lit up at the time of DTC check procedure. 3. DTC is displayed without Tc and CG terminal connection.	1. Tc terminal circuit	05-187

CIRCUIT INSPECTION

How to read and use each page is shown below.

▲Circuit Description
The major role and, operation of the circuit and its component parts are explained.

▲Diagnostic Trouble Code No. and Detection Item
Indicates the diagnostic trouble codes, diagnostic trouble code settings and suspect areas for a problem.

▲Inspection Procedures
Use the inspection procedures to determine if the circuit is normal or abnormal. If it is abnormal, use it to determine whether the problem is located in the sensors, actuators, wire harness or ECU.

05-178

DIAGNOSTICS – SFI SYSTEM (ZZ-FE)

DTC P0500/42 VEHICLE SPEED SENSOR MALFUNCTION

CIRCUIT DESCRIPTION
The vehicle speed sensor outputs a 4-pulse signal for every revolution of the rotor shaft, which is rotated by the transmission output shaft via the driven gear. After this signal is converted into a more precise rectangular waveform by the waveform shaping circuit inside the combination meter, it is then transmitted to the Engine ECU. The Engine ECU determines the vehicle speed based on the frequency of these pulse signals.

DTC No.	DTC Detecting Condition	Trouble Area
P0500/42	During vehicle is being driven, no vehicle speed sensor signal to engine ECU (2 trip detection logic)	- Combination meter - Open or short in No. 1 vehicle speed sensor circuit - No. 1 vehicle speed sensor - Engine ECU

WIRING DIAGRAM

▲Wiring Diagram
This shows a wiring diagram of the circuit. Use this diagram together with ELECTRICAL WIRING DIAGRAM to thoroughly understand the circuit. Wire colors are indicated by an alphabetical code. B = Black, L = Blue, R = Red, BR = Brown, LG = Light Green, V = Violet, G = Green, O = Orange, W = White, GR = Gray, P = Pink, Y = Yellow, SB = Sky Blue. The first letter indicates the basic wire color and the second letter indicates the color of the stripe.

05-179

DIAGNOSTICS – SFI SYSTEM (ZZ-FE)

INSPECTION PROCEDURE

1 READ VALUE OF VEHICLE SPEED VALUE (SPEEDOMETER OPERATION)

- Select data monitor on the hand-held tester.
- Perform a test drive of the vehicle.
- Read the vehicle speed on the hand-held tester.

RESULT: The same as the speed displayed on the speed meter.

NG **REPLACE COMBINATION METER ASSY**

OK

2 INSPECT ECU

(a) Check the output waveform.
HINT: Using the oscilloscope function of hand-held tester, it is possible to check the function between the engine ECU and the knock control sensor. The waveform shown in the illustration is an example without noise and chattering.

- Connect the hand-held tester between the terminals SPD of the engine ECU E7 connector and E1 of the engine ECU E8 connector.
- Select the oscilloscope function on the hand-held tester. (Refer to the hand-held tester's instruction book for operating instructions.)

RESULT: Voltage is intermittently generated

ITEM	CONTENTS
TERMINAL	SPD→E1
EQUIPMENT SET	50DIV, 20ms/DIV
CONDITION	Running at 20 km/h

HINT:
• The multitude gets shorter as the engine speed becomes faster.

OK **CHECK AND REPLACE ECU**

NG

▲Indicates the condition of the connector of the ECU during the check.

Connector being checked is connected.

Connector being checked is disconnected.

Connections of tester are indicated by (+), (-) after terminals name.

For inspection of connector with body ground, there is nothing about the body ground written down.

D25842

HOW TO USE THIS MANUAL

GENERAL INFORMATION

01082-13

1. GENERAL DESCRIPTION

- (a) This manual is made in accordance with SAE J2008.
- (b) Generally, repair operations can be separated in the following 3 main processes:
 - 1. Diagnosis
 - 2. Removing/Installing, Replacing, Disassembling/Reassembling, Checking and Adjusting
 - 3. Final Inspection
- (c) This manual explains the 1st process of "Diagnosis" (found in the "Diagnostics" section), the 2nd process of "Removing and Installing, Replacing, Disassembling, Installing and Checking, and Adjusting", but the 3rd process of "Final Inspection" is omitted.
- (d) The following essential operations are not written in this manual. However, these operations must be performed in actual situations.
 - (1) Operations with a jack or lift
 - (2) Cleaning of a removed part when necessary
 - (3) Visual check

2. INDEX

- (a) An alphabetical INDEX section is provided at the end of the book as a reference to help you find the item to be repaired.

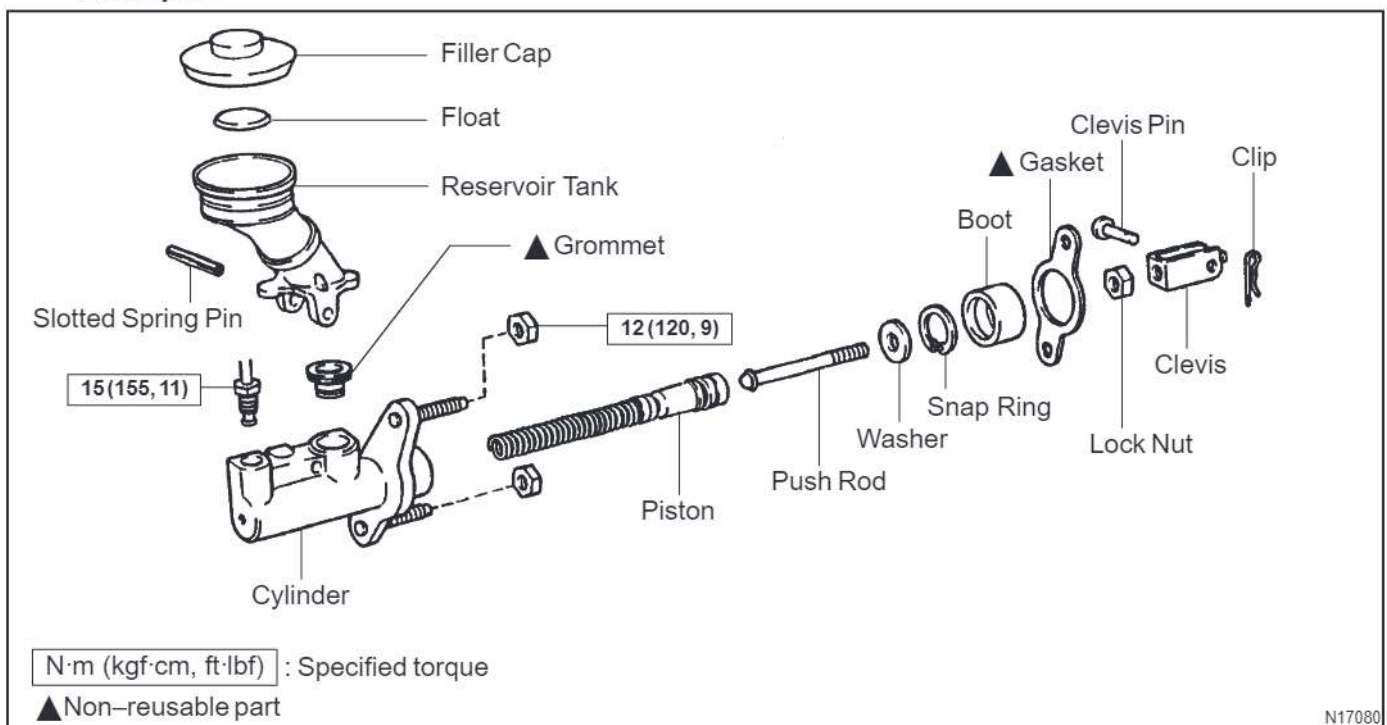
3. PREPARATION

- (a) Use of special service tools (SST) and special service materials (SSM) may be required, depending on the repair situation. Be sure to use SST and SSM when they are required and follow the working procedure properly. A list of SST and SSM is in the Preparation section of this manual.

4. REPAIR PROCEDURES

- (a) Component drawing is placed under the title where necessary.
- (b) Non-reusable parts, grease application area, precoated parts and tightening torque are specified in the component drawings.

Example:



- (c) Tightening torque, grease application area, and non-reusable parts are described as important points in the procedures.

NOTICE:

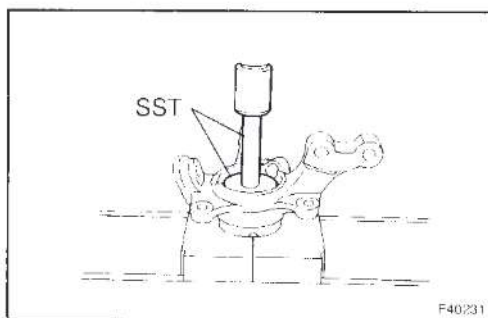
There are cases where such information can only be explained by using an illustration. In these cases, all the information such as torque, oil, etc. are described in the illustration.

- (d) Installing procedures are performed in the reverse order of the removal and only the important points are described.
- (e) Only items with points are described in the procedure, and the operational portion and content are placed using an illustration. In the explanations, details of the operational method, standard value and notices are placed.
- (f) There may be a case where the illustrations of similar models are used. In that case, specific details may be different from the actual vehicle.
- (g) The procedures are presented in a step-by-step format:
- (1) The illustration shows what to do and where to do it.
 - (2) The task heading tells what to do.
 - (3) The explanation text tells how to perform the task and gives other information such as specifications and warnings.

Example:

Illustration:

what to do and where



Task heading: what to do

14. INSTALL FRONT AXLE HUB LH BEARING

- (a) Using SST and a press, install a new bearing to the steering knuckle. *Detailed text: how to perform task*
- SST 09950-60020 (09951-00720), 09950-70010
(09951-07100)

Set part No

Component part No.

D31009

HINT:

This format provides an experienced technician with a FAST TRACK to the necessary information. The task heading can be read at a glance when necessary and the text below provides detailed information. Important specifications and warnings always are written in bold type to stand out from the rest of the text.

5. SERVICE SPECIFICATIONS

- (a) Specifications are presented in bold type throughout the manual. You never have to leave the procedure to look up your specifications. The specifications are also found in the Service Specifications section for quick reference.

6. TERMS DEFINITION

CAUTION	Indicates the possibility of injury to you or other people.
NOTICE	Indicates the possibility of damage to the components being repaired.
HINT	Provides additional information to help you to perform the repair efficiently.

7. SI UNIT

- (a) The units given in this manual are primarily expressed according to the SI UNIT (International System of Units), and alternately expressed in the metric system and in the English System.

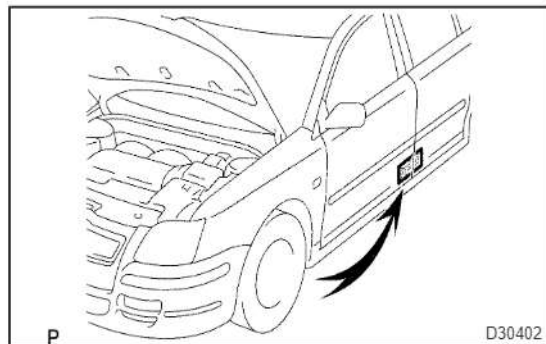
Example:

Torque: 30 N m (310 kgf cm, 22 ft lbf)

IDENTIFICATION INFORMATION

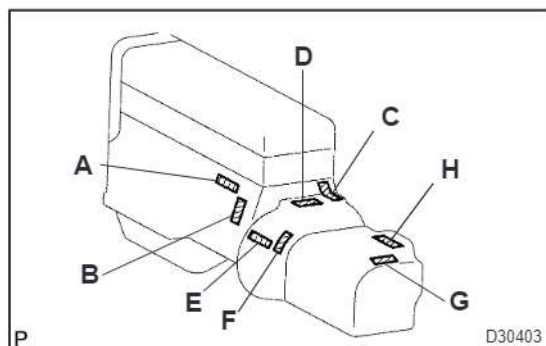
VEHICLE IDENTIFICATION AND SERIAL NUMBERS

010LE-01



1. VEHICLE IDENTIFICATION NUMBER

- (a) The vehicle identification number is stamped in the engine compartment, as shown in the illustration. This number has also been stamped on the manufacturer's plate.



2. ENGINE SERIAL NUMBER AND TRANSAXLE SERIAL NUMBER

- (a) The engine serial number is stamped on the cylinder block of the engine and the transmission serial number is stamped on the housing as shown in the illustration.

A: 1CD-FTV

B: 1AZ-FE, 1AZ-FSE

C: 1ZZ-FE, 3ZZ-FE

D: C50, C250

E: U241E

F: E354, E357, U241E

G: U241E

H: U341E

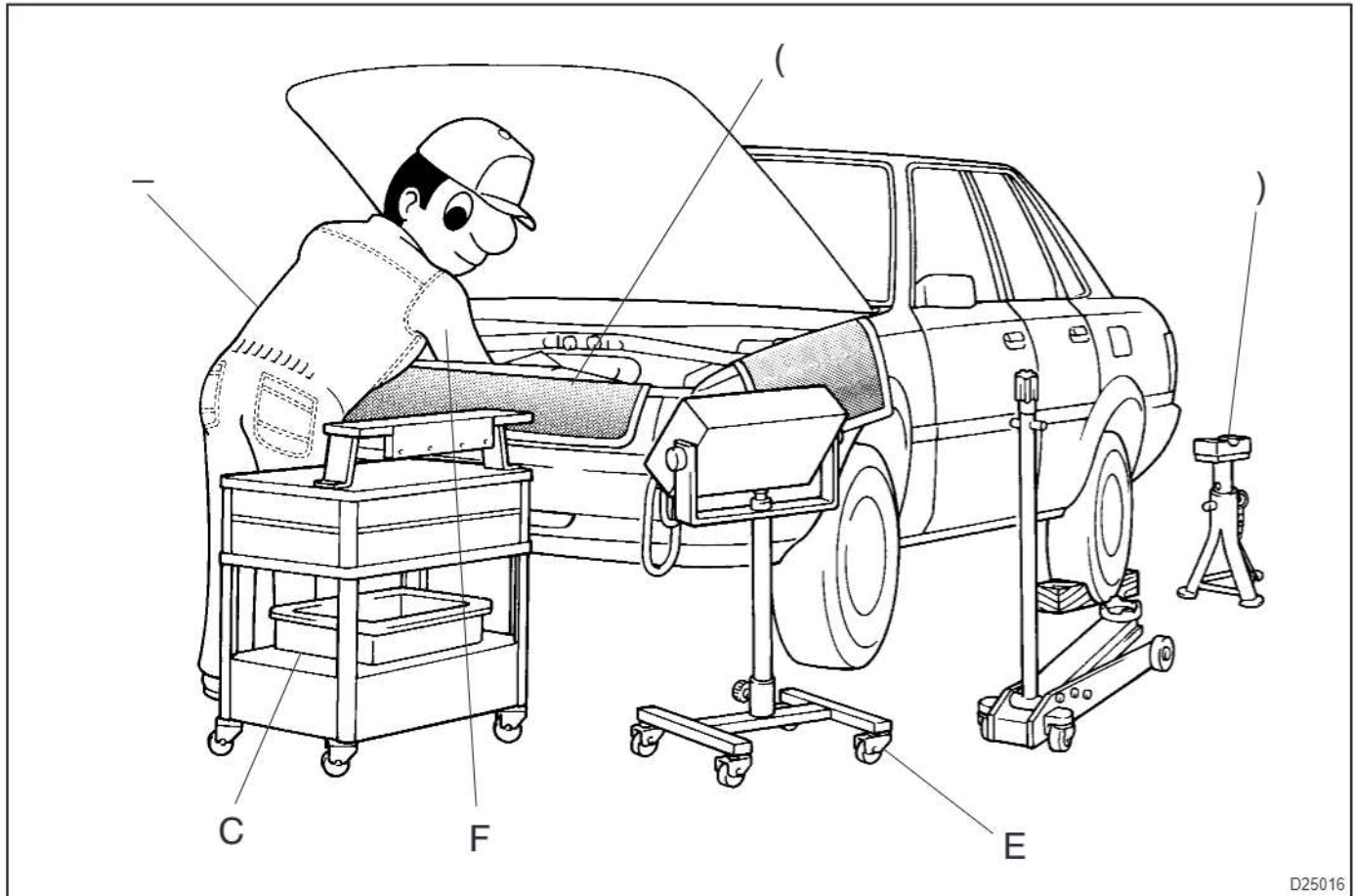
REPAIR INSTRUCTION

PRECAUTION

010LF-01

1. BASIC REPAIR HINT

(a) HINTS ON OPERATIONS

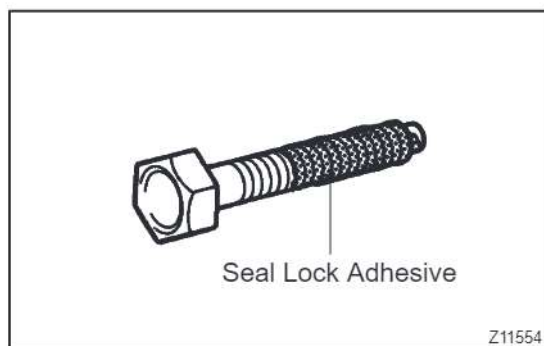


D25016

1	Looks	▲Always wear a clean uniform. ▲Hat and safety shoes must be worn.
2	Vehicle protection	▲Set a grill cover, fender cover, seat cover and floor mat before starting operation.
3	Safe operation	▲When working with 2 or more persons, be sure to check the safety of one another. ▲When working with the engine running, pay attention to providing ventilation for exhaust fumes in the workshop. ▲When working with high-temperatures, rotating, moving or vibrating parts, be careful not to burn or injure yourself. ▲When jacking up the vehicle, be sure to support the specified location with a safety stand. ▲When lifting up the vehicle, use safety equipment.
4	Preparation of tools and measuring gauge	▲Before starting repairs, prepare the tool stand, SST, gauge, oil, shop rag and parts for replacement.
5	Removal and installation, disassembly and assembly operations	▲Diagnose with a thorough understanding of the trouble condition and perform effective operation. ▲Before removing the parts, check the general condition of the assembly, and for deformation and damage. ▲When the structure is complicated, take a notes or make matchmarks as not to make mistakes that affect the function of the parts. ▲Clean and wash the removed parts if necessary and assemble them after a thorough check.
6	Removed parts	▲Place the removed parts in the correct order to avoid mixing them up or making them dirty. ▲As for non-reusable parts such as gaskets, O-rings, and self-locking nuts, replace them with new ones following the instructions in this manual. ▲Organize the parts that were replaced in a box and show them to the customer.

(b) JACKING UP AND SUPPORTING VEHICLE

- (1) Care must be taken when jacking up and supporting the vehicle. Be sure to lift and support the vehicle at the proper locations ([See page 01-19](#)).



(c) PRECOATED PARTS

- (1) Precoated parts such as bolts, nuts, etc., are coated with a seal lock adhesive at the factory.
- (2) If a precoated part is retightened, loosened or caused to move in any way, it must be recoated with the specified adhesive.
- (3) When reusing precoated parts, clean off the old adhesive and dry the part with compressed air. Then apply the specified seal lock adhesive to the bolt, nut or threads.

NOTICE:

Check the torque with the lower limit value of the torque tolerance.

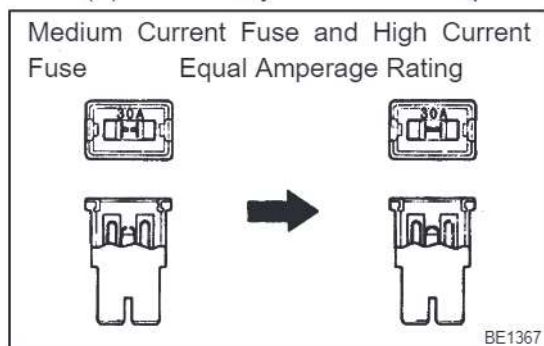
- (4) Depending on the seal lock agent to be applied, there may be cases where it is necessary to leave it for a specified time until it hardens.

(d) GASKETS

- (1) When necessary, use a sealer on gaskets to prevent leaks.

(e) BOLTS, NUTS AND SCREWS

- (1) Carefully follow all the specifications for tightening torques. Always use a torque wrench.



(f) FUSES

- (1) When replacing fuses, be sure that a new fuse has the correct amperage rating. DO NOT exceed the rating, or use one with a lower rating.

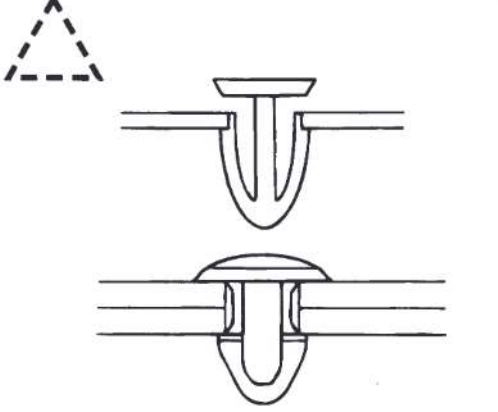
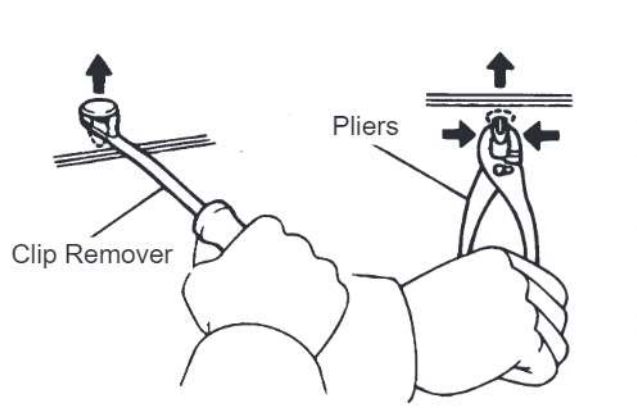
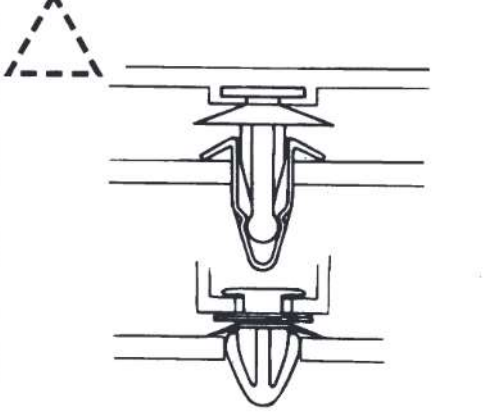
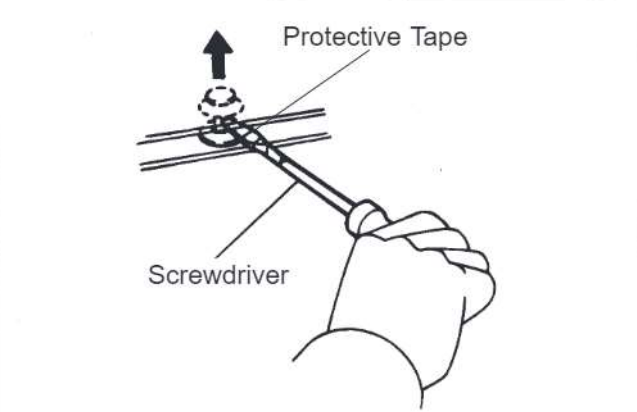
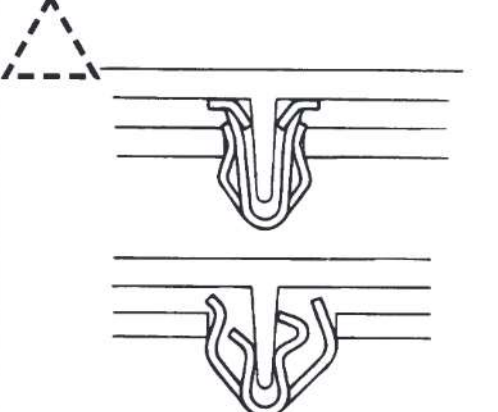
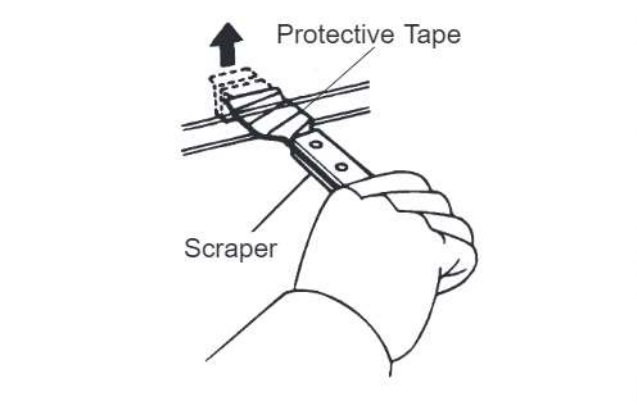
Illustration	Symbol	Part Name	Abbreviation
BE5594	IN0365	FUSE	FUSE
BE5595	IN0366	MEDIUM CURRENT FUSE	M-FUSE
D27353	IN0367	HIGH CURRENT FUSE	H-FUSE

(g) CLIPS

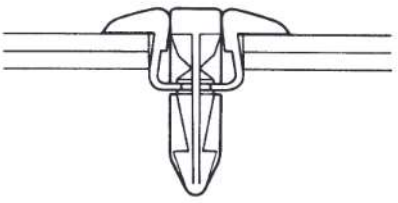
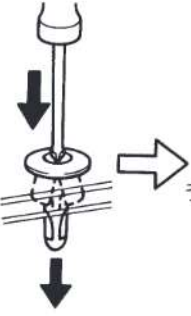
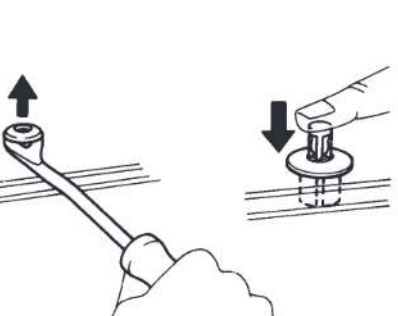
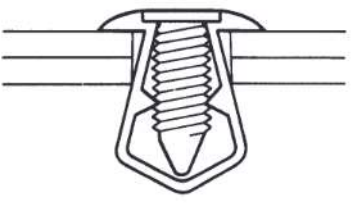
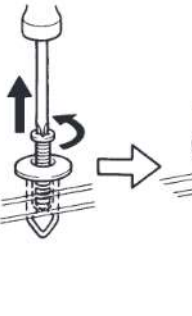
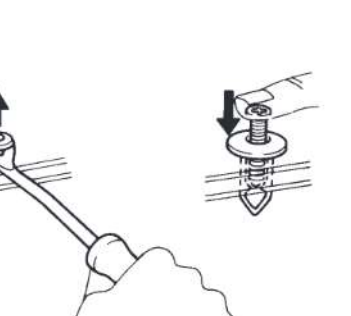
- (1) The removal and installation methods of typical clips used in body parts are shown in the table below.

HINT:

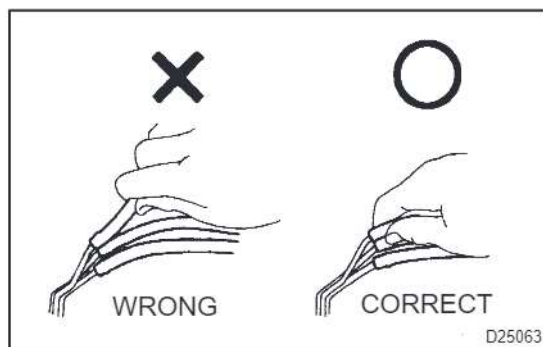
If the clip is damaged during the operation, always replace it with a new clip.

Shape (Example)	Removal/Installation
	 Clip Remover Pliers
	 Protective Tape Screwdriver
	 Protective Tape Scraper

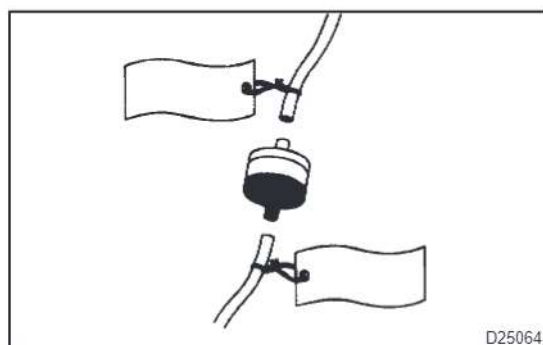
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Shape (Example)	Removal/Installation
	Removal  Installation 
	Removal  Installation 

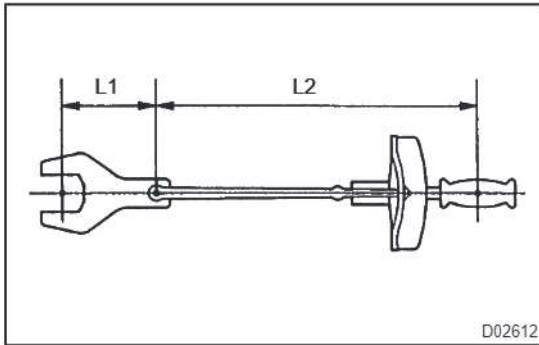
V00012



- (h) REMOVAL AND INSTALLATION OF VACUUM HOSES
- (1) To disconnect vacuum hoses, pull them by holding the end, not the middle of the hose.



- (2) When disconnecting vacuum hoses, use tags to identify where they should be reconnected.
- (3) After completing the job, make a double check whether the vacuum hoses are properly connected. A label under the hood shows the proper layout.
- (4) When using a vacuum gauge, never force the hose onto a connector that is too large. Use a step-down adapter for adjustment. Once the hose has been stretched, it may leak air.

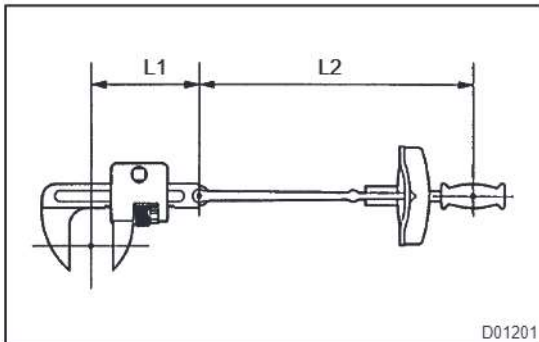


(i) TORQUE WHEN USING TORQUE WRENCH WITH EXTENSION TOOL

- (1) When the torque wrench is combined with SST or an extension tool to extend the length, and you tighten until the torque wrench reads the specified torque value, the actual torque becomes excessive.
- (2) In this manual, only the specified torque is described. In case of using SST or extension tool, calculate the reading of the torque wrench by the following formula.

- (3) Formula $T' = T \times L2 / (L1 + L2)$

T'	Reading of torque wrench {N m (kgf cm, ft lbf)}
T	Torque {N m (kgf cm, ft lbf)}
L1	Length of SST or extension tool (cm)
L2	Length of torque wrench (cm)



2. FOR VEHICLES EQUIPPED WITH SRS AIRBAG AND SEAT BELT PRETENSIONER

HINT:

The AVENSIS is equipped with an SRS (Supplemental Restraint System), which includes the driver airbag, front passenger airbag and seat belt pretensioner.

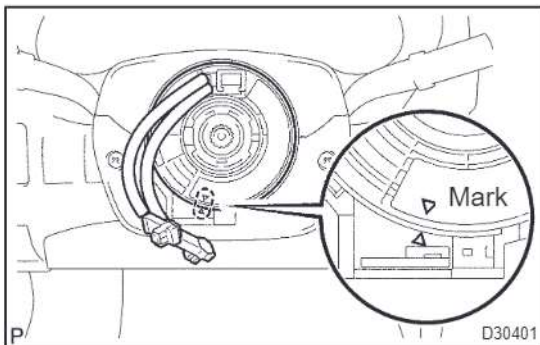
Failure to carry out the service operations in the correct sequence could cause the supplemental restraint system to unexpectedly deploy while servicing. This could cause a serious accident.

Furthermore, if a mistake is made when servicing the supplemental restraint system, it is possible that the SRS will fail to operate when required. Before servicing (including removal or installation of parts, inspection or replacement), be sure to read the following items carefully. Then follow the correct procedures described in this manual.

(a) GENERAL NOTICE

- (1) Malfunction symptoms of the supplemental restraint system are difficult to confirm so the diagnostic trouble codes become the most important source of information when troubleshooting. When troubleshooting the supplemental restraint system, always check the diagnostic trouble codes before disconnecting the battery ([See page 05-1184](#)).
- (2) Work must be started after 90 seconds from the time that the ignition switch is turned to the LOCK position and the negative (-) terminal cable is disconnected from the battery.
(The supplemental restraint system is equipped with a back-up power source. So, if work is started within 90 seconds after disconnecting the negative (-) terminal cable from the battery, the SRS may deploy).
When the negative (-) terminal cable is disconnected from the battery, memory of the clock and audio systems is cancelled. So, before starting work, make a record of the contents recorded in each memory system. Then, when work is finished, reset the clock and audio systems as before.

- (3) Even in the case of a minor collision where the SRS does not deploy, the horn button assembly, instrument panel passenger airbag assembly and seat belt pretensioner should be inspected (See pages 60-19, 60-19 and 61-9).
- (4) Never use the SRS related parts from another vehicle. When replacing the parts, replace them with new parts.
- (5) Before repairs, remove the airbag sensor if there is a possibility of shock during repairs.
- (6) Never disassemble and repair the center airbag sensor assembly, side airbag sensor assembly, horn button assembly, instrument panel passenger airbag assembly, front seat airbag assembly, curtain shield airbag assembly or seat belt pretensioner.
- (7) If the center airbag sensor assembly, the side airbag sensor assembly, the horn button assembly, the instrument panel passenger airbag assembly have been dropped, or if there are cracks, dents or other defects in the case, bracket or connector, replace them with new ones.
- (8) Do not directly expose the airbag sensor assembly, the side airbag sensor assembly, the horn button assembly, the instrument panel passenger airbag assembly or the seat belt pretensioner to hot air or flames.
- (9) Use a volt/ohmmeter with high impedance (10 k Ω /V minimum) for troubleshooting electrical circuits.
- (10) Information labels are attached to the SRS components. Follow the instructions on the notices.
- (11) After work on the supplemental restraint system is completed, check the SRS warning light (See page 05-1184)



(b) SPIRAL CABLE (in Combination Switch)

- (1) The steering wheel must be fitted correctly to the steering column with the spiral cable at the neutral position, otherwise cable disconnection and other troubles may occur. Refer to page 60-26 of this manual concerning the correct installation of the steering wheel.

(c) HORN BUTTON ASSEMBLY (with Airbag)

- (1) When removing the horn button assembly or handling a new horn button, it should be placed with the top of the pad surface facing upward. Placing it with the pad surface facing downward may lead to a serious accident if the airbag deploys for some reasons. Also, do not place anything on top of the horn button.
- (2) Never measure the resistance of the airbag squib (This may cause the airbag to inflate, which is very dangerous).
- (3) Grease should not be applied to the horn button assembly, and the pad should not be cleaned with any type of detergent.
- (4) Store the horn button assembly where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- (5) When using electric welding, disconnect the airbag connector (4 yellow pins) under the steering column near the combination switch connector before starting work.

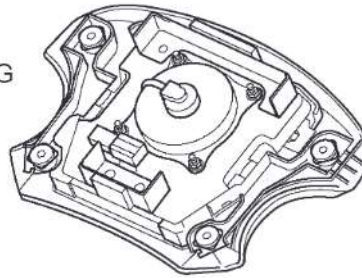
- (6) When disposing the vehicle or the horn button assembly alone, the airbag should be inflated using an SST before disposal (See page 60-19).
Perform the operation in a safe place away from electrical noise.

Example:

CORRECT

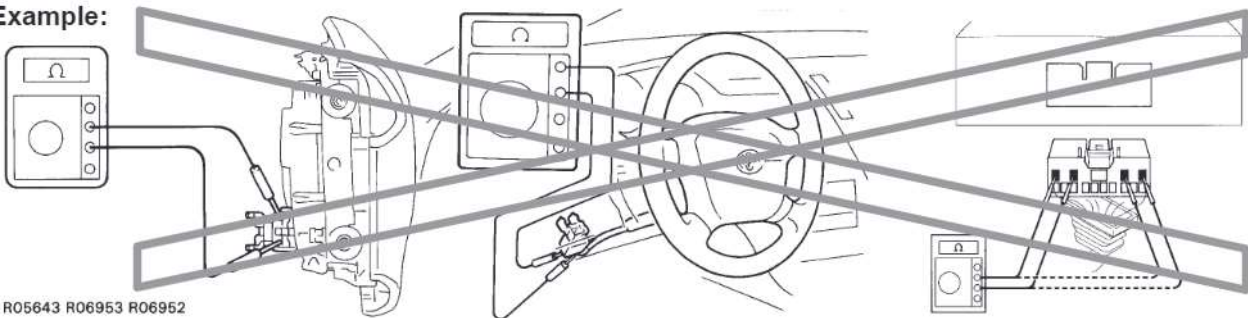


WRONG



Y

D25096

Example:

R05643 R06953 R06952

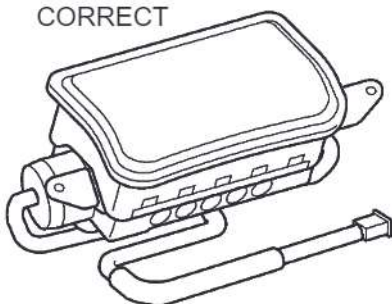
Z13950

(d) INSTRUMENT PANEL PASSENGER AIRBAG ASSEMBLY

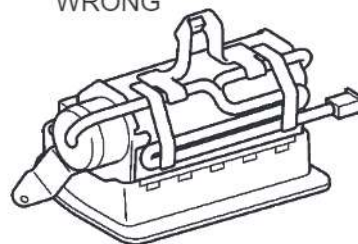
- (1) Always place a removed or new instrument panel passenger airbag assembly with the airbag inflation direction facing upward. Placing the airbag assembly with the airbag inflation direction facing downward could cause a serious accident if the airbag deploys.
- (2) Never measure the resistance of the airbag squib (This may cause the airbag to inflate, which is very dangerous).
- (3) Grease should not be applied to the instrument panel passenger airbag assembly and the airbag door should not be cleaned with detergents of any kind.
- (4) Store the airbag assembly where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- (5) When using electric welding, disconnect the airbag connector (4 yellow pins) installed on the assembly before starting work.
- (6) When disposing of a vehicle or the airbag assembly unit, the airbag should be deployed using SST before disposal (See page 60-30).
Activate in a safe place away from electrical noise.

Example:

CORRECT

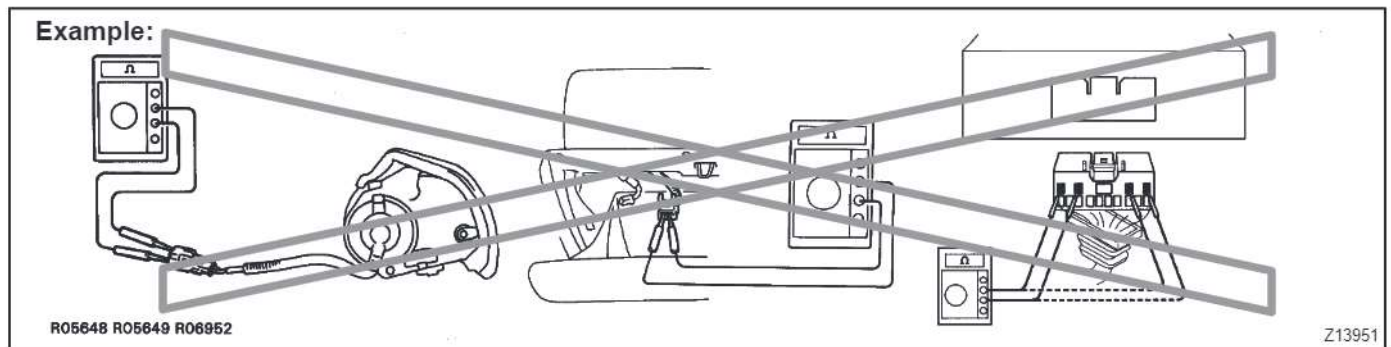


WRONG



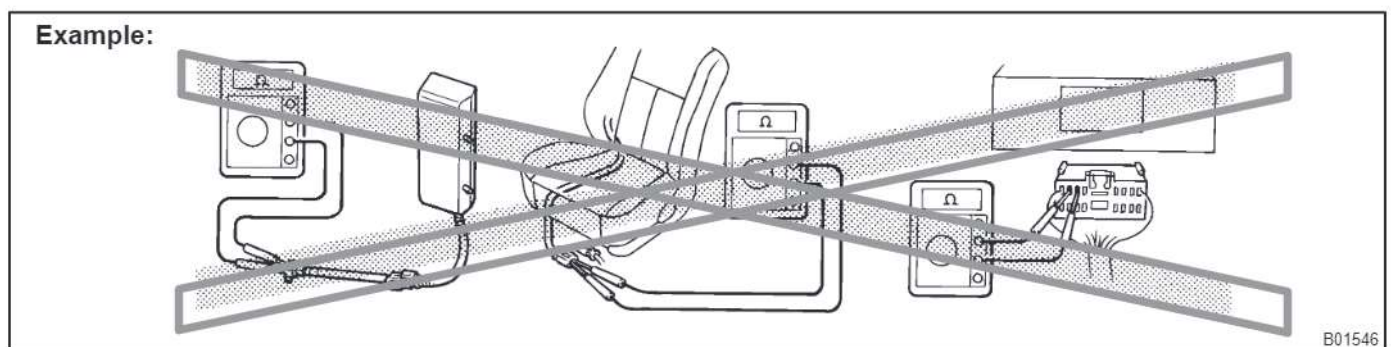
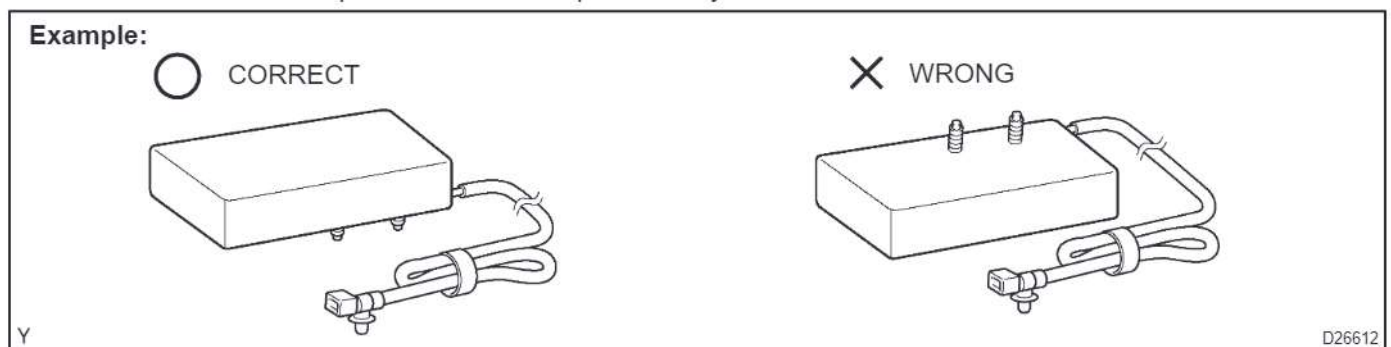
Y

D27522



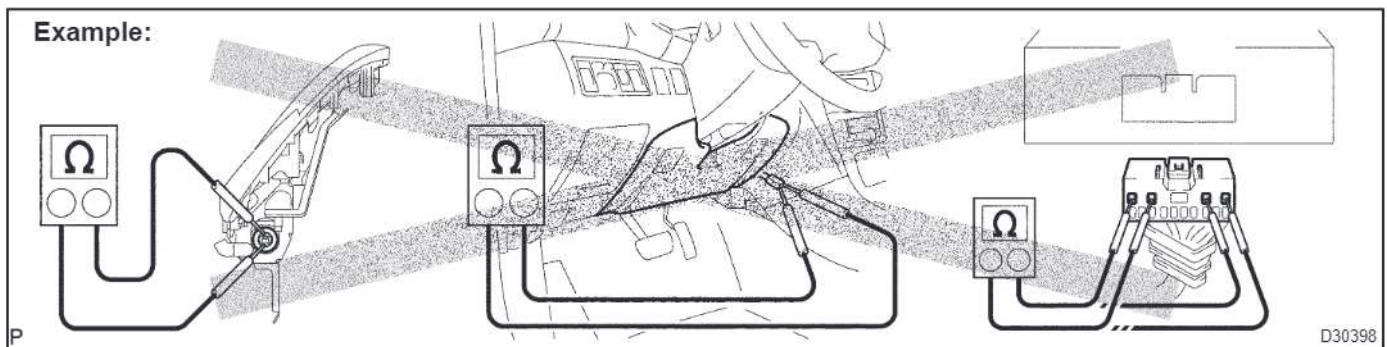
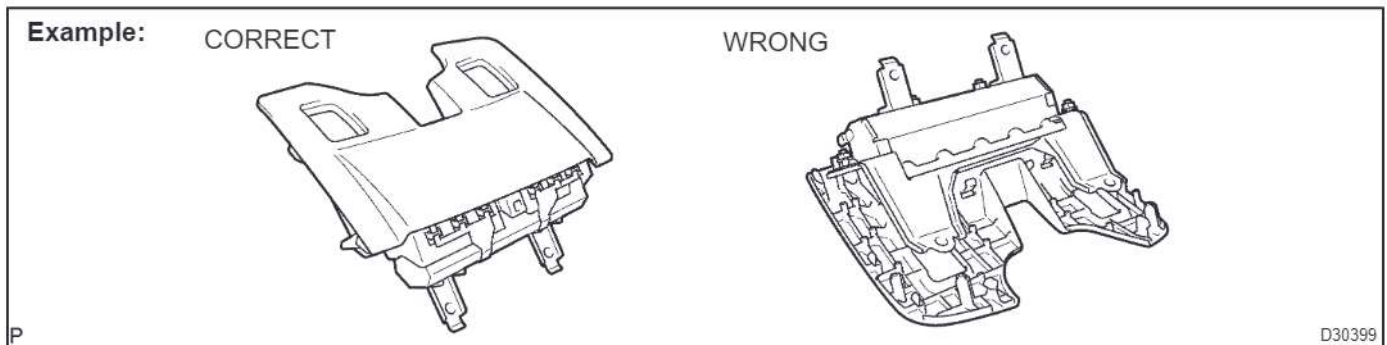
(e) FRONT SEAT AIRBAG ASSEMBLY

- (1) Always store a removed or new front seat airbag assembly with the airbag inflating direction facing upward.
Placing the airbag assembly with the airbag inflation direction facing downward could cause a serious accident if the airbag inflates.
- (2) Never measure the resistance of the airbag squib (This may cause the airbag to inflate, which is very dangerous.).
- (3) Grease should not be applied to the front seat airbag assembly and the airbag door should not be cleaned with detergents of any kind.
- (4) Store the airbag assembly where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- (5) When using electric welding, first disconnect the airbag connector (2 yellow pins) installed on the assembly before starting work.
- (6) When disposing of a vehicle or the side airbag assembly alone, the airbag should be inflated using an SST before disposal (See page 60-47).
Perform the operation in a safe place away from electrical noise.



(f) INSTRUMENT PANEL LOWER AIRBAG ASSEMBLY

- (1) Always store a removed or new instrument panel lower airbag assembly with the airbag inflating direction facing upward.
Placing the airbag assembly with the airbag inflation direction facing downward could cause a serious accident if the airbag inflates.
- (2) Never measure the resistance of the airbag squib (This may cause the airbag to inflate, which is very dangerous.).
- (3) Grease should not be applied to the instrument panel lower airbag assembly and the airbag door should not be cleaned with detergents of any kind.
- (4) Store the instrument panel lower airbag assembly where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- (5) When using electric welding, first disconnect the airbag connector (2 yellow pins) installed on the instrument panel lower airbag assembly before starting work.
- (6) When disposing of a vehicle or the instrument panel lower airbag assembly alone, the airbag should be inflated using an SST before disposal ([See page 60-55](#)).
Perform the operation in a safe place away from electrical noise.



(g) CURTAIN SHIELD AIRBAG ASSEMBLY

- (1) Always place the removed or new curtain shield airbag assembly in a clear plastic bag, and keep it in a safe place.

NOTICE:

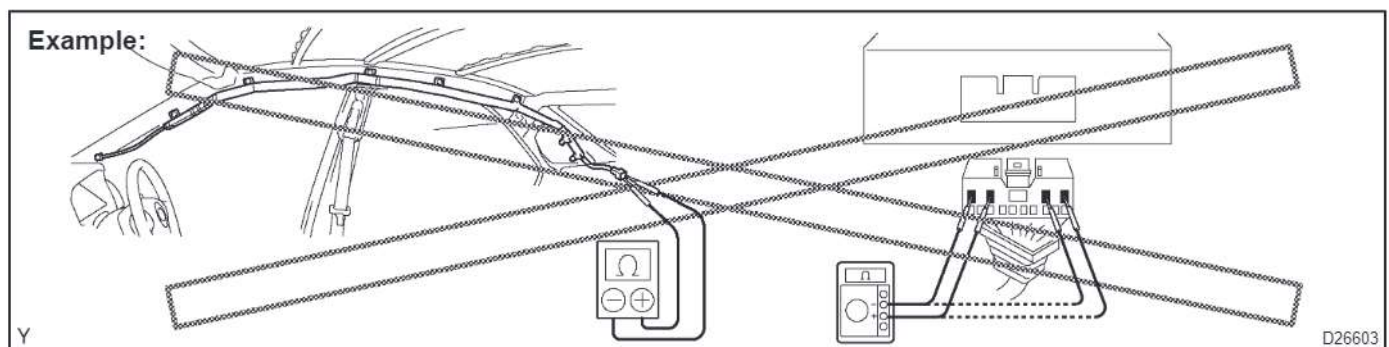
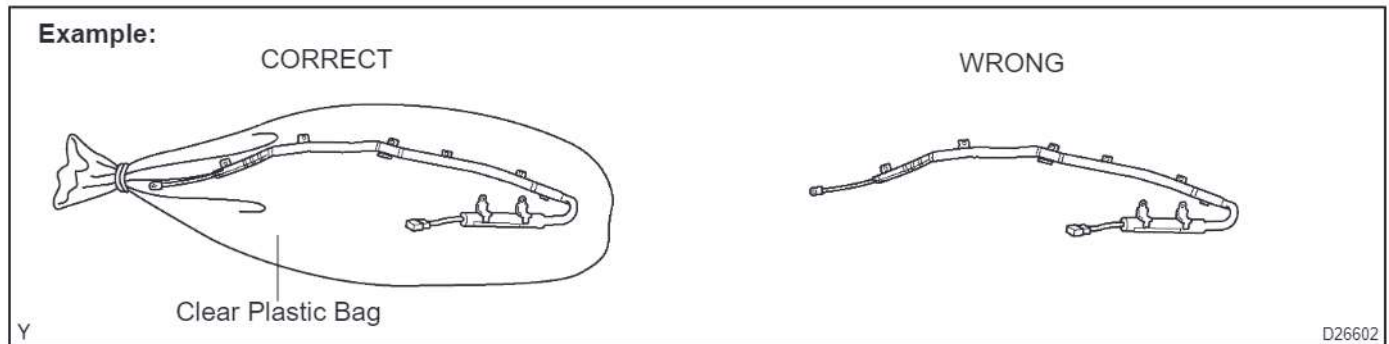
Protection bag is not re-useable.

CAUTION:

Never disassemble the curtain shield airbag assembly.

- (2) Never measure the resistance of the airbag squib (This may cause the airbag to inflate, which is very dangerous).

- (3) Grease should not be attached to the curtain shield airbag assembly, and the surface should not be cleared with detergents of any kind.
- (4) Store the airbag assembly where the ambient temperature remains below 93°C (200°F), without high humidity and away from electrical noise.
- (5) When using electric welding, first disconnect the airbag connector (4 yellow pins) from the instrument panel before starting work.
- (6) When disposing of a vehicle or the curtain shield airbag assembly alone, the airbag should be deployed using SST before the disposal ([See page 60–41](#)). Perform operation in a safe place away from electrical noise.

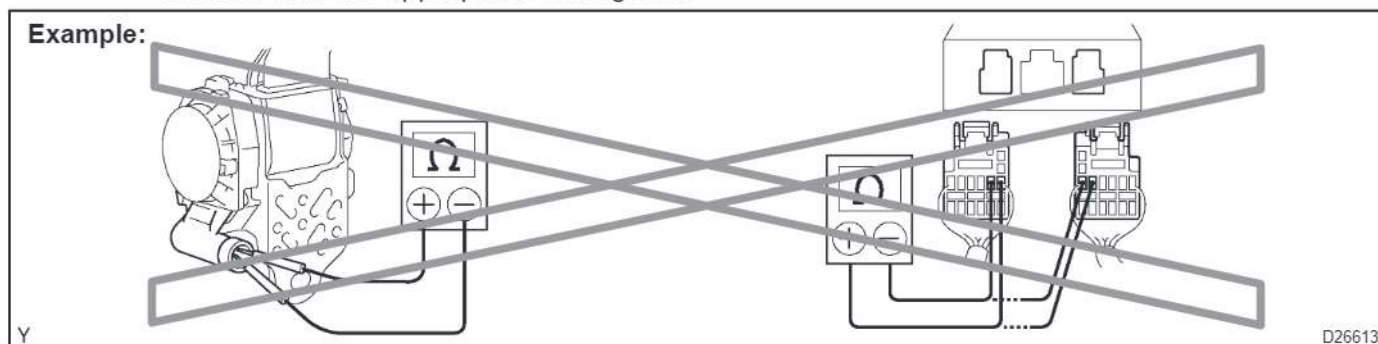


(h) SEAT BELT PRETENSIONER

- (1) Never measure the resistance of the seat belt pretensioner (This may cause the seat belt pretensioner to activate, which is very dangerous.).
- (2) Never disassemble the seat belt pretensioner.
- (3) Never install the seat belt pretensioner in another vehicle.
- (4) Store the seat belt pretensioner where the ambient temperature remains below 80°C (176°F) without high humidity and away from electrical noise.
- (5) When using electric welding, first disconnect the connector (2 yellow pins) before starting work.
- (6) When disposing of a vehicle or the seat belt pretensioner alone, the seat belt pretensioner should be activated before disposal ([See page 61–9](#)). Perform the operation in a safe place away from electrical noise.
- (7) The seat belt pretensioner is hot after being activation, so allow some time for it to cool down sufficiently before disposal. Never apply water to cool down the seat belt pretensioner.

- (8) Oil or water should not be put on the front seat outer belt and the front seat outer belt should be cleaned with the appropriate detergents.

Example:

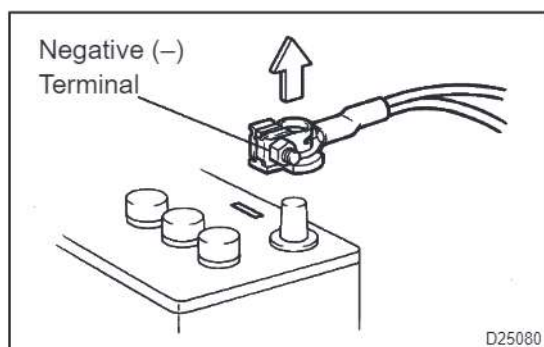


(i) **AIRBAG SENSOR ASSEMBLY**

- (1) Never reuse the airbag sensor assembly involved in a collision where the SRS has deployed.
- (2) The connectors to the airbag sensor assembly should be connected or disconnected with the sensor mounted on the floor. If the connectors are connected or disconnected while the airbag sensor assembly is not mounted to the floor, it could cause an undesired ignition of the supplemental restraint system.
- (3) Work must be started after 90 seconds from the time the ignition switch is turned to the "LOCK" position and the negative (–) terminal cable is disconnected from the battery, even if only loosening the set bolts of the airbag sensor assembly.

(j) **WIRE HARNESS AND CONNECTOR**

- (1) The SRS wire harness is integrated with the instrument panel wire harness assembly. All connectors in the system are a standard yellow color. If the SRS wire harness becomes disconnected or the connector becomes broken due to an accident, etc., repair or replace it.

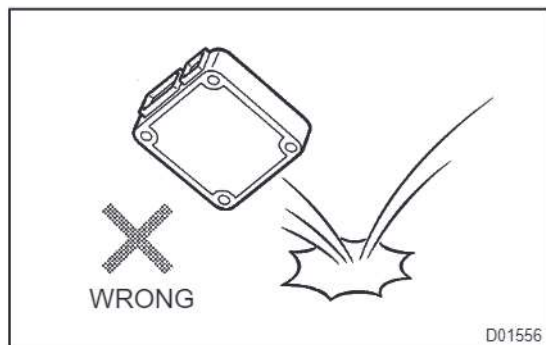


3. ELECTRONIC CONTROL

(a) **REMOVAL AND INSTALLATION OF BATTERY TERMINAL**

- (1) Before performing electronic work, disconnect the battery negative (–) terminal cable beforehand in order to prevent it from shorting and burning out.
- (2) When disconnecting and installing the terminal cable, turn the ignition switch and lighting switch OFF, and loosen the terminal nut completely. Perform these operations without twisting or prying the terminal.
- (3) When the battery terminal cable is removed, the memories of the clock, radio, DTCs, etc. are erased. So before removing it, check them and make a note of their settings.
- (4) When the battery negative (–) terminal cable is disconnected, memories of various systems are erased. Therefore, refer to the PRE-CHECK for each system to make sure whether or not the system needs to be initialized after the battery negative

(-) terminal cable is disconnected. If necessary, be sure to initialize the system.



(b) HANDLING OF ELECTRONIC PARTS

- (1) Do not open the cover or case of the ECU unless absolutely necessary (If the IC terminals are touched, the IC may be rendered inoperative by static electricity).
- (2) To disconnect electronic connectors, pull the connector itself, not the wires.
- (3) Be careful not to drop electronic components, such as sensors or relays. If they are dropped on a hard floor, they should be replaced and not be reused.
- (4) When cleaning the engine with steam, protect the electronic components, air filter and emission-related components from water.
- (5) Never use an impact wrench to remove or install temperature switches or temperature sensors.
- (6) When checking the continuity at the wire connector, insert the tester probe carefully to prevent terminals from bending.

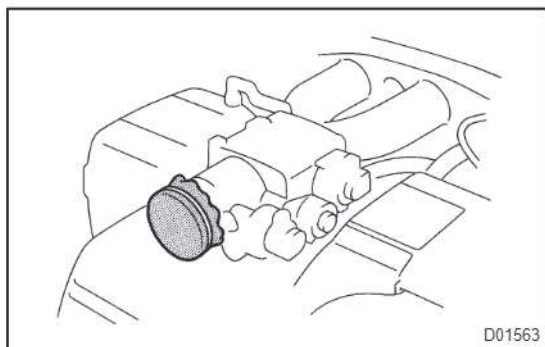
4. REMOVAL AND INSTALLATION OF FUEL CONTROL PARTS

(a) PLACE FOR REMOVING AND INSTALLING OF FUEL SYSTEM PARTS

- (1) Work in a place with good air ventilation and without anything that could cause combustion around you such as a welder, grinder, drill, electric motor or stove.
- (2) Never work in a place such as a pit or nearby a pit, as there is a possibility that vaporized fuel will collect in those places.

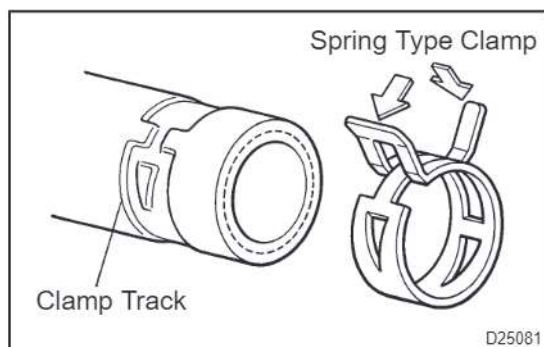
(b) REMOVING AND INSTALLING OF FUEL SYSTEM PARTS

- (1) Prepare a fire extinguisher before starting operations.
- (2) To prevent static electricity, install a ground on the fuel changer, vehicle and fuel tank, and do not spray much water so as to prevent slipping.
- (3) Never use any electric equipment like an electric motor or a working light, as they may create sparks or a high temperature.
- (4) Never use an iron hammer, as it may create sparks.
- (5) Dispose of shop rags containing fuel deposits separately.



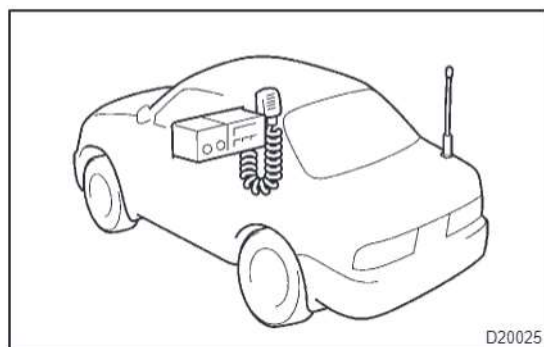
5. REMOVAL AND INSTALLATION OF ENGINE INTAKE PARTS

- (a) If any metal tip is mixed in the inlet pass, this may give a bad effect to the engine and turbocharger.
- (b) When removing and installing the inlet system parts, close the opening of the removed inlet system parts and the engine with a clean waste cloth or gum tape.
- (c) When installing the inlet system parts, check that there is no mixing of a metal tip.



6. HANDLING OF HOSE CLAMPS

- Before removing the hose, check the depth of the inserting portion and the clamp position to restore it surely.
- Change a deformed or dented clamp for a new one.
- In case of reusing a hose, attach the clamp on the clamp track portion of the hose.
- For a spring type clamp, adjust it by adding force to the arrow mark direction after the installation.



7. FOR VEHICLES EQUIPPED WITH MOBILE COMMUNICATION SYSTEMS

- Install the antenna as far away from the ECU and sensors of the vehicle electronic systems as possible.
- Install an antenna feeder at least 20 cm (7.87 in.) away from the ECU and sensors of the vehicle electronic systems. For details of the ECU and sensors locations, refer to the section on applicable components.
- Prevent the antenna feeder from getting entangled with the other wiring, and keep the antenna feeder separate from other wiring as much as possible.
- Check that the antenna and feeder are correctly adjusted.
- Do not install any high-powered mobile communication system.

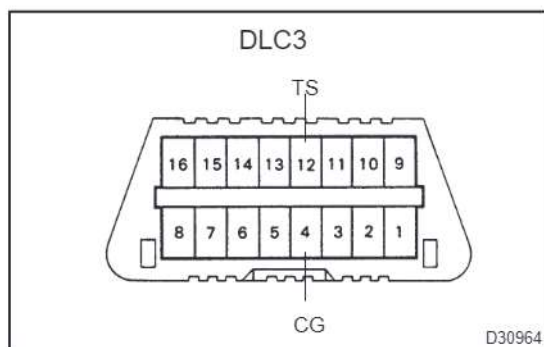
8. FOR VEHICLES EQUIPPED WITH TRACTION CONTROL (TRC) SYSTEM

(a) NOTICES WHEN USING 2-WHEEL DRUM TESTER

- When using a 2-wheel drum tester such as a speedometer tester, a combination tester of speedometer and brake, chassis dynamometer or else, always turn the TRC system off via the TRC OFF switch before measurement.

NOTICE:

TRC system OFF condition can be confirmed by the indication, "TRC OFF", of the warning light in the combination meter.



9. FOR VEHICLES EQUIPPED WITH VEHICLE SKID CONTROL (VSC) SYSTEM

(a) NOTICES WHEN USING DRUM TESTER

- When using a drum tester, be sure to start the engine with the ignition OFF, and connect SST to the terminals TS and CG of the DLC3 before measurement in order to prohibit the VSC operation.

SST 09843-18040

NOTICE:

- ▲ **Confirm that the VSC warning light blinks.**
 - ▲ **VSC system will be reset when the engine is re-started.**
 - ▲ **Fasten the vehicle with lock chains.**
- (b) **NOTICES OF RELATED OPERATIONS TO VSC**
- (1) Do not carry out unnecessary installation and removal as it might disorder the adjustment of related parts to VSC.
 - (2) Be sure to carry out the preparation for operation and the confirmation of operation completion in accordance with the instruction of the text and when the related operations to VSC are performed.

10. FOR VEHICLES EQUIPPED WITH CATALYTIC CONVERTER**CAUTION:**

If a large amount of unburned gasoline flows into the converter, it may cause overheating and is a fire hazard. To prevent this, observe the following precautions.

- (a) Use only unleaded gasoline.
- (b) Avoid prolonged idling.
Avoid idling the engine for more than 20 minutes.
- (c) Avoid a spark jump test.
 - (1) Perform a spark jump test only when absolutely necessary. Perform this test as rapidly as possible.
 - (2) While testing, never race the engine.
- (d) Avoid a prolonged engine compression measurement.
Engine compression measurements must be performed as rapidly as possible.
- (e) Do not run the engine when the fuel tank is nearly empty. This may cause the engine to misfire and create an extra load on the converter.

VEHICLE LIFT AND SUPPORT LOCATIONS

1. NOTICE ABOUT VEHICLE CONDITION WHEN JACKING UP

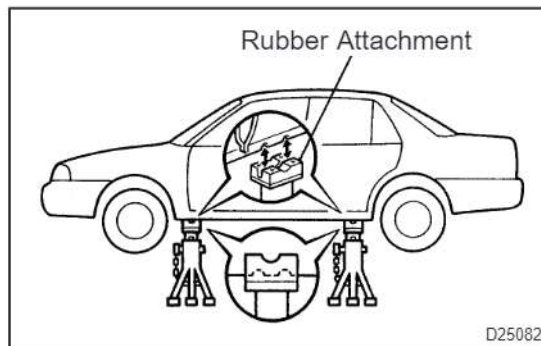
- (a) As a rule, the vehicle must be unloaded when jacking up. Never jack up or lift up the vehicle loaded with things of heavy weight.
- (b) When removing any parts of heavy weight like the engine and transmission, the center of gravity of the vehicle moves. Place a balance weight so as to keep it from rolling, or hold the jacking support location using the mission jack.

2. NOTICE FOR USING 4 POST LIFT

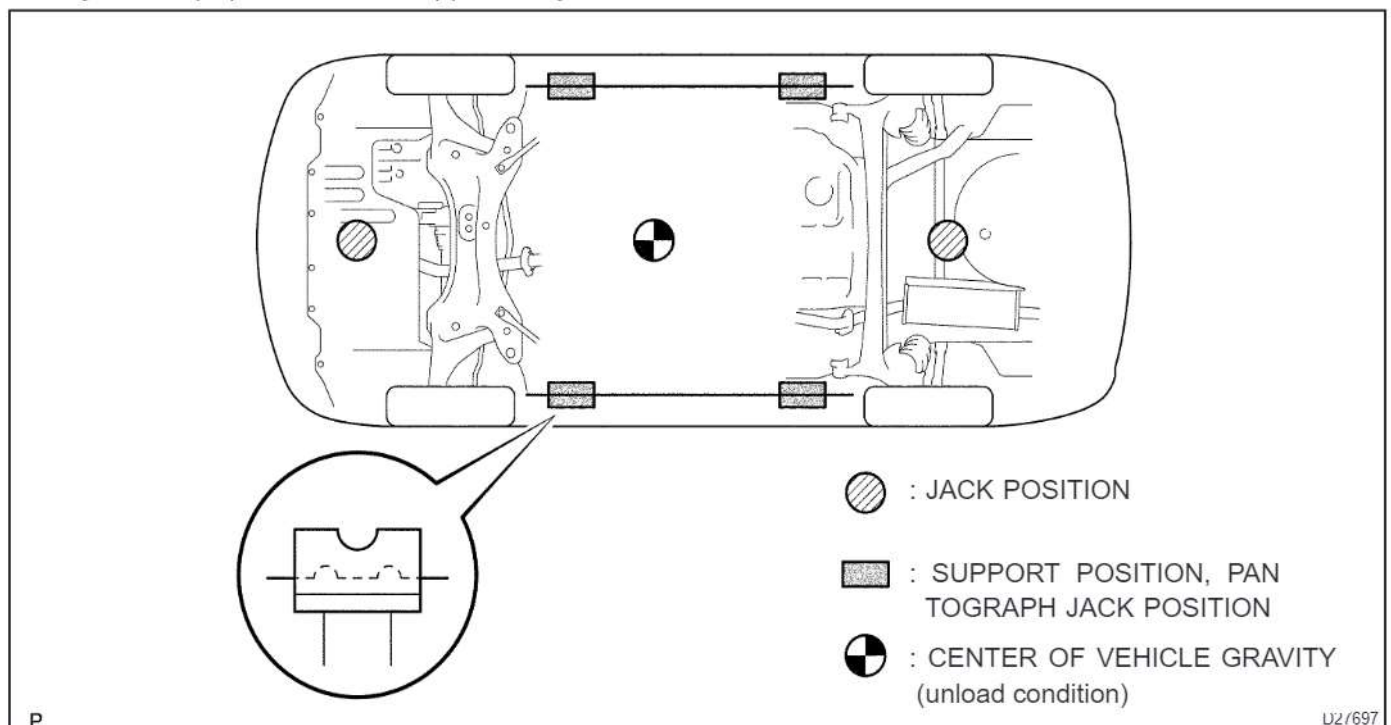
- (a) Follow the instruction manual for a safety operation.
- (b) Do not damage tires or wheels with a free wheel beam.
- (c) Using a wheel stopper, fix the vehicle.

3. NOTICE FOR USING JACK AND SAFETY STAND

- (a) Work in the flat place using a wheel stopper at all times.



- (b) Use a safety stand with a rubber attachment, as shown in the illustration.
- (c) Support the specified location with a jack and safety stand accurately.
- (d) When jacking up the front wheels, release the parking brake and place wheel stoppers only behind the rear wheels. When jacking up the rear wheels, place wheel stoppers only in front of the front wheels.
- (e) Do not work or leave the vehicle supported only by a jack. Be sure to support the vehicle with a safety stand.
- (f) When jacking up only the front wheels or only the rear wheels, place wheel stoppers to both sides of the wheels that contact ground.
- (g) When jacking down the vehicle with its front wheels jacked up, release the parking brake and place wheel stoppers only in front of the rear wheels. When jacking down the vehicle with its rear wheels jacked up, place wheel stoppers only behind the front wheels.



4. NOTICE FOR USING SWING ARM TYPE LIFT

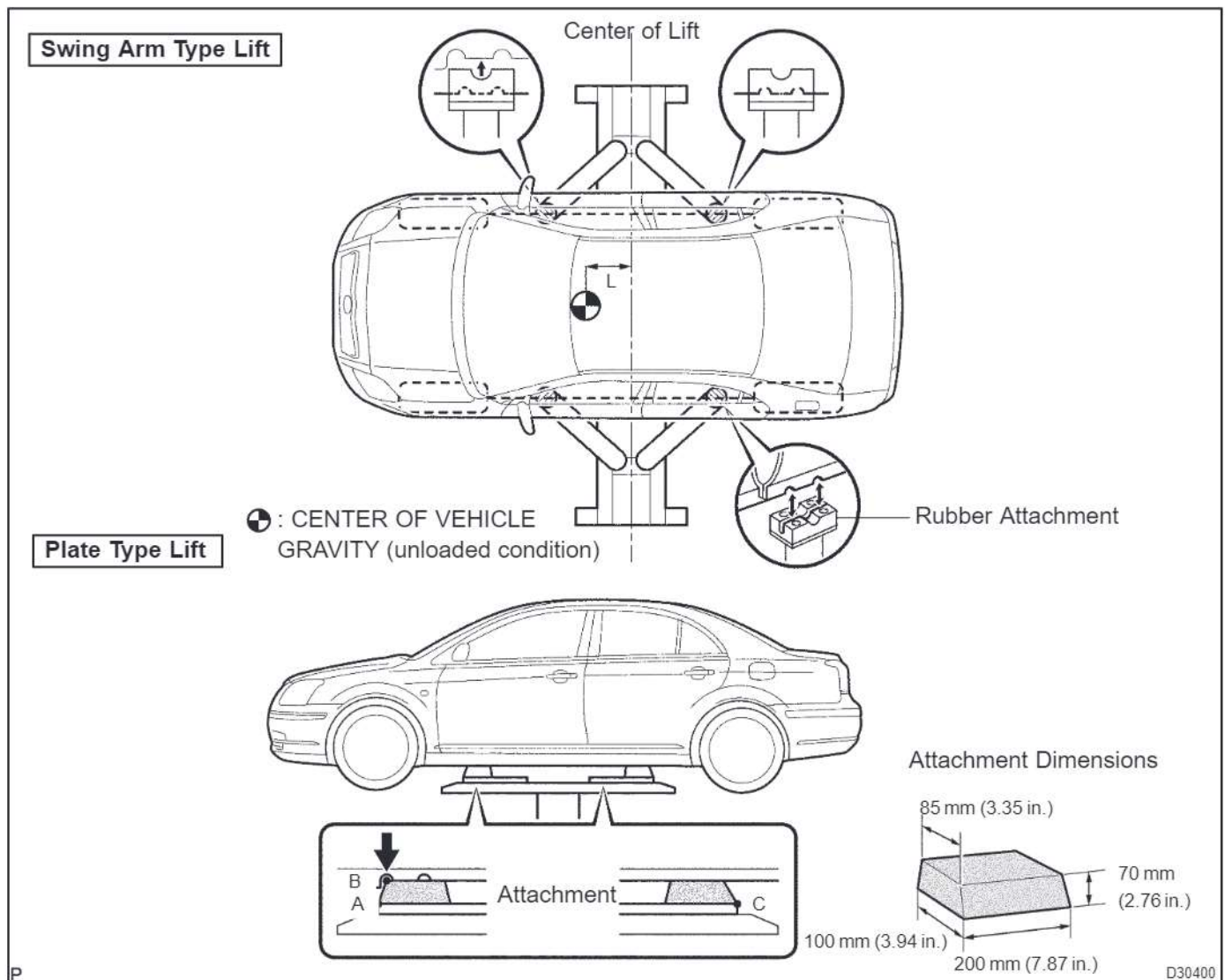
- (a) Follow the instruction manual of the lift for a safe operation.
- (b) Use a cradle with a rubber attachment, as shown in the illustration.
- (c) Set in the vehicle so as to make its center of gravity as close as possible to the center of the lift. ("L" becomes short.)
- (d) Place the vehicle horizontally by adjusting the height of the cradle, and match the groove of the cradle and the safety stand support location accurately.
- (e) Be sure to lock the swing arm during the operation.
- (f) Lift the vehicle up until the tires float, and shake the vehicle to make sure that the vehicle is stable.

5. NOTICE FOR USING PLATE TYPE LIFT

- (a) Follow the instruction manual of the lift for a safe operation.
- (b) Use a plate lift attachment.
- (c) Be sure to set the vehicle to the specified position.

Right and left set position	▲Place the vehicle over the center of the lift.
Front and rear set position	▲Align the cushion gum ends of the plate with the attachment lower ends (A and C). ▲Align the attachment upper end (B) with the rocker flange front side notch.

- (d) Lift the vehicle up until the tires float a bit, and shake the vehicle to make sure that the vehicle is stable.



TERMS

ABBREVIATIONS USED IN THIS MANUAL

01089-11

Abbreviations	Meaning
ABS	Anti-Lock Brake System
A/C	Air Conditioner
AC	Alternating Current
ACC	Accessory
ACIS	Acoustic Control Induction System
ACSD	Automatic Cold Start Device
A.D.D.	Automatic Disconnecting Differential
A/F	Air-Fuel Ratio
AHC	Active Height Control Suspension
ALR	Automatic Locking Retractor
ALT	Alternator
AMP	Amplifier
ANT	Antenna
Approx.	Approximately
ASSY	Assembly
A/T, ATM	Automatic Transmission (Transaxle)
ATF	Automatic Transmission Fluid
AUTO	Automatic
AUX	Auxiliary
AVG	Average
AVS	Adaptive Variable Suspension
B+	Battery Voltage
BA	Brake Assist
BACS	Boost Altitude Compensation System
BAT	Battery
BDC	Bottom Dead Center
B/L	Bi-Level
B/S	Bore-Stroke Ratio
BTDC	Before Top Dead Center
BVSV	Bimetallic Vacuum Switching Valve
CAN	Controller Area Network
CB	Circuit Breaker
CCo	Catalytic Converter For Oxidation
CD	Compact Disc
CF	Cornering Force
CG	Center Of Gravity
CH	Channel
CKD	Complete Knock Down
COMB.	Combination
CPE	Coupe
CPS	Combustion Pressure Sensor
CPU	Central Processing Unit
CRS	Child Restraint System
CTR	Center
C/V	Check Valve
CV	Control Valve
CW	Curb Weight
DC	Direct Current

Abbreviations	Meaning
DEF	Defogger
DFL	Deflector
DIFF.	Differential
DIFF. LOCK	Differential Lock
D/INJ	Direct Injection
DLC	Data Link Connector
DLI	Distributorless Ignition
DOHC	Double Overhead Camshaft
DP	Dash Pot
DS	Dead Soak
DSP	Digital Signal Processor
DTC	Diagnostic Trouble Code
DVD	Digital Versatile Disc
EBD	Electric Brake Force Distribution
ECAM	Engine Control And Measurement System
ECD	Electronic Controlled Diesel
ECDY	Eddy Current Dynamometer
ECT	Electronic Control Transmission
ECU	Electronic Control Unit
ED	Electro-Deposited Coating
EDU	Electronic Driving Unit
EDIC	Electric Diesel Injection Control
EFI	Electronic Fuel Injection
E/G	Engine
EGR	Exhaust Gas Recirculation
EGR-VM	EGR-Vacuum Modulator
ELR	Emergency Locking Retractor
EMPS	Electric Motor Power Steering
ENG	Engine
ESA	Electronic Spark Advance
ETCS-i	Electronic Throttle Control System-intelligent
EVAP	Evaporative Emission Control
EVP	Evaporator
E-VRV	Electric Vacuum Regulating Valve
EX	Exhaust
FE	Fuel Economy
FF	Front-Engine Front-Wheel-Drive
F/G	Fuel Gauge
FIPG	Formed In Place Gasket
FL	Fusible Link
F/P	Fuel Pump
FPU	Fuel Pressure Up
Fr	Front
F/W	Flywheel
FW/D	Flywheel Damper
FWD	Front-Wheel-Drive
GAS	Gasoline
GND	Ground
GPS	Global Positioning System
HAC	High Altitude Compensator
H/B	Hatchback

INTRODUCTION – TERMS

Abbreviations	Meaning
H-FUSE	High Current Fuse
HI	High
HID	High Intensity Discharge (Head Lamp)
HSG	Housing
HT	Hard Top
HWS	Heated Windshield System
IC	Integrated Circuit
IDI	Indirect Diesel Injection
IFS	Independent Front Suspension
IG	Ignition
IIA	Integrated Ignition Assembly
IN	Intake (Manifold, Valve)
INT	Intermittent
I/P	Instrument Panel
IRS	Independent Rear Suspension
ISC	Idle Speed Control
J/B	Junction Block
J/C	Junction Connector
KD	Kick-Down
LAN	Local Area Network
LB	Liftback
LCD	Liquid Crystal Display
LED	Light Emitting Diode
LH	Left-Hand
LHD	Left-Hand Drive
L/H/W	Length, Height, Width
LLC	Long-Life Coolant
LNG	Liquified Natural Gas
LO	Low
LPG	Liquified Petroleum Gas
LSD	Limited Slip Differential
LSP & PV	Load Sensing Proportioning And Bypass Valve
LSPV	Load Sensing Proportioning Valve
MAP	Manifold Absolute Pressure
MAX.	Maximum
MIC	Microphone
MIL	Malfunction Indicator Lamp
MIN.	Minimum
MG1	Motor Generator No.1
MG2	Motor Generator No.2
MP	Multipurpose
MPI	Multipoint Electronic Injection
MPX	Multiplex Communication System
M/T, MTM	Manual Transmission (Transaxle)
MT	Mount
MTG	Mounting
N	Neutral
NA	Natural Aspiration
No.	Number
O2S	Oxygen Sensor
O/D	Overdrive

Abbreviations	Meaning
OEM	Original Equipment Manufacturing
OHC	Overhead Camshaft
OHV	Overhead Valve
OPT	Option
ORVR	On-board Refilling Vapor Recovery
O/S	Oversize
P & BV	Proportioning And Bypass Valve
PCS	Power Control System
PCV	Positive Crankcase Ventilation
PKB	Parking Brake
PPS	Progressive Power Steering
PTC	Positive Temperature Coefficient
PS	Power Steering
PTO	Power Take-Off
P/W	Power Window
R & P	Rack And Pinion
RAM	Random Access Memory
R/B	Relay Block
RBS	Recirculating Ball Type Steering
R/F	Reinforcement
RFS	Rigid Front Suspension
RH	Right-Hand
RHD	Right-Hand Drive
RLY	Relay
ROM	Read Only Memory
Rr	Rear
RRS	Rigid Rear Suspension
RWD	Rear-Wheel Drive
SDN	Sedan
SEN	Sensor
SICS	Starting Injection Control System
SOC	State Of Charge
SOHC	Single Overhead Camshaft
SPEC	Specification
SPI	Single Point Injection
SRS	Supplemental Restraint System
SSM	Special Service Materials
SST	Special Service Tools
STD	Standard
STJ	Cold-Start Fuel Injection
SW	Switch
SYS	System
T/A	Transaxle
TACH	Tachometer
TBI	Throttle Body Electronic Fuel Injection
TC	Turbocharger
TCCS	TOYOTA Computer-Controlled System
TCV	Timing Control Valve
TDC	Top Dead Center
TEMP.	Temperature
TEMS	TOYOTA Electronic Modulated Suspension

INTRODUCTION – TERMS

Abbreviations	Meaning
TFT	Toyota Free-Tronic
TIS	Total Information System For Vehicle Development
T/M	Transmission
TMC	TOYOTA Motor Corporation
TMMK	TOYOTA Motor Manufacturing Kentucky, Inc.
TRC	Traction Control System
TURBO	Turbocharge
TWC	Three-Way Catalyst
U/D	Underdrive
U/S	Undersize
VCV	Vacuum Control Valve
VENT	Ventilator
VIN	Vehicle Identification Number
VPS	Variable Power Steering
VSC	Vehicle Stability Control
VSV	Vacuum Switching Valve
VTV	Vacuum Transmitting Valve
VVT-i	Variable Valve Timing-intelligent
w/	With
WGN	Wagon
W/H	Wire Harness
w/o	Without
WU-TWC	Warm Up Three-way Catalytic Converter
WU-OC	Warm Up Oxidation Catalytic Converter
1st	First
2nd	Second
2WD	Two Wheel Drive Vehicle (4 x 2)
3rd	Third
4th	Fourth
4WD	Four Wheel Drive Vehicle (4 x 4)
4WS	Four Wheel Steering System
5th	Fifth

GLOSSARY OF SAE AND TOYOTA TERMS

This glossary lists all SAE–J1930 terms and abbreviations used in this manual in compliance with SAE recommendations, as well as their TOYOTA equivalents.

SAE ABBREVIATIONS	SAE TERMS	TOYOTA TERMS ()—ABBREVIATIONS
A/C	Air Conditioning	Air Conditioner
ACL	Air Cleaner	Air Cleaner, A/CL
AIR	Secondary Air Injection	Air Injection (AI)
AP	Accelerator Pedal	—
B+	Battery Positive Voltage	+B, Battery Voltage
BARO	Barometric Pressure	HAC
CAC	Charge Air Cooler	Intercooler
CARB	Carburetor	Carburetor
CFI	Continuous Fuel Injection	—
CKP	Crankshaft Position	Crank Angle
CL	Closed Loop	Closed Loop
CMP	Camshaft Position	Cam Angle
CPP	Clutch Pedal Position	—
CTOX	Continuous Trap Oxidizer	—
CTP	Closed Throttle Position	LL ON, Idle ON
DFI	Direct Fuel Injection (Diesel)	Direct Injection (DI/INJ)
DI	Distributor Ignition	—
DLC1	Data Link Connector 1	1: Check Connector
DLC2	Data Link Connector 2	2: Total Diagnosis Communication Link (TDCL)
DLC3	Data Link Connector 3	3: OBD II Diagnostic Connector
DTC	Diagnostic Trouble Code	Diagnostic Trouble Code
DTM	Diagnostic Test Mode	—
ECL	Engine Control Level	—
ECM	Engine Control Module	Engine ECU (Electronic Control Unit)
ECT	Engine Coolant Temperature	Coolant Temperature, Water Temperature (THW)
EEPROM	Electrically Erasable Programmable Read Only Memory	Electrically Erasable Programmable Read Only Memory (EEPROM), Erasable Programmable Read Only Memory (EPROM)
EFE	Early Fuel Evaporation	Cold Mixture Heater (CMH), Heat Control Valve (HCV)
EGR	Exhaust Gas Recirculation	Exhaust Gas Recirculation (EGR)
EI	Electronic Ignition	Distributorless Ignition (DLI)
EM	Engine Modification	Engine Modification (EM)
EPROM	Erasable Programmable Read Only Memory	Programmable Read Only Memory (PROM)
EVAP	Evaporative Emission	Evaporative Emission Control (EVAP)
FC	Fan Control	—
FEEPROM	Flash Electrically Erasable Programmable Read Only Memory	—
FEPROM	Flash Erasable Programmable Read Only Memory	—
FF	Flexible Fuel	—
FP	Fuel Pump	Fuel Pump
GEN	Generator	Alternator
GND	Ground	Ground (GND)

HO ₂ S	Heated Oxygen Sensor	Heated Oxygen Sensor (HO ₂ S)
IAC	Idle Air Control	Idle Speed Control (ISC)
IAT	Intake Air Temperature	Intake or Inlet Air Temperature
ICM	Ignition Control Module	–
IFI	Indirect Fuel Injection	Indirect Injection (IDL)
IFS	InertiaFuel–Shutoff	–
ISC	Idle Speed Control	–
KS	Knock Sensor	Knock Sensor
MAF	Mass Air Flow	Air Flow Meter
MAP	Manifold Absolute Pressure	Manifold Pressure Intake Vacuum
MC	Mixture Control	Electric Bleed Air Control Valve (EBCV) Mixture Control Valve (MCV) Electric Air Control Valve (EACV)
MDP	Manifold Differential Pressure	–
MFI	Multiport Fuel Injection	Electronic Fuel Injection (EFI)
MIL	Malfunction Indicator Lamp	Check Engine Lamp
MST	Manifold Surface Temperature	–
MVZ	Manifold Vacuum Zone	–
NVRAM	Non–Volatile Random Access Memory	–
O ₂ S	Oxygen Sensor	Oxygen Sensor, O ₂ Sensor (O ₂ S)
OBD	On–Board Diagnostic	On–Board Diagnostic System (OBD)
OC	Oxidation Catalytic Converter	Oxidation Catalyst Convert (OC), CCo
OP	Open Loop	Open Loop
PAIR	Pulsed Secondary Air Injection	Air Suction (AS)
PCM	Powertrain Control Module	–
PNP	Park/Neutral Position	–
PROM	Programmable Read Only Memory	–
PSP	Power Steering Pressure	–
PTOX	Periodic Trap Oxidizer	Diesel Particulate Filter (DPF) Diesel Particulate Trap (DPT)
RAM	Random Access Memory	Random Access Memory (RAM)
RM	Relay Module	–
ROM	Read Only Memory	Read Only Memory (ROM)
RPM	Engine Speed	Engine Speed
SC	Supercharger	Supercharger
SCB	Supercharger Bypass	E–ABV
SFI	Sequential Multiport Fuel Injection	Electronic Fuel Injection (EFI), Sequential Injection
SPL	Smoke Puff Limiter	–
SRI	Service Reminder Indicator	–
SRT	System Readiness Test	–
ST	Scan Tool	–
TB	Throttle Body	Throttle Body
TBI	Throttle Body Fuel Injection	Single Point Injection Central Fuel Injection (Ci)
TC	Turbocharger	Turbocharger
TCC	Torque Converter Clutch	Torque Converter

TCM	Transmission Control Module	Transmission ECU, ECT ECU
TP	Throttle Position	Throttle Position
TR	Transmission Range	–
TVV	Thermal Vacuum Valve	Bimetallic Vacuum Switching Valve (BVSV) Thermostatic Vacuum Switching Valve (TVSV)
TWC	Three-Way Catalytic Converter	Three-Way Catalytic (TWC) Manifold Converter CC_{RO}
TWC+OC	Three-Way + Oxidation Catalytic Converter	$CC_R + CCo$
VAF	Volume Air Flow	Air Flow Meter
VR	Voltage Regulator	Voltage Regulator
VSS	Vehicle Speed Sensor	Vehicle Speed Sensor
WOT	Wide Open Throttle	Full Throttle
WU-OC	Warm Up Oxidation Catalytic Converter	–
WU-TWC	Warm Up Three-Way Catalytic Converter	–
3GR	Third Gear	–
4GR	Fourth Gear	–