MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

Passenger Car

1987

Manufacturer	Car Line	
CHRYSLER CORPORATION	**DODGE SHADOW**	
Mailing Address		
DETROIT, MICHIGAN 48288	Issued **12-15-85**	Revised --

Questions concerning these specifications should be directed to the manufacturer whose address is shown above.

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The General Specifications herein are those in effect at date of compilation and are subject to change without notice by the manufacturer.

3MC PS 837135

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Car Line **DODGE SHADOW**
Model Year **1987** Issued **12-15-85** Revised ( )

Car Models

Model Description & Drive (FWD/RWD)	Introduction Date	Make, Car Line, Series, Body Type (Mfgr's Model Code)	No. of Designated Seating Positions (Front/Rear)	Max. Trunk Cargo Load-Kilograms (Pounds)
FWD	June 1986			
DODGE SHADOW				
2-Door Hatchback		DH24	5 (2/3)	
4-Door Hatchback		DH44	5(2/3)	

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Power Teams (Indicate whether standard or optional)
SAE J1349 Net bhp (brake horsepower) and net torque corrected to 77°F/25°C and 29.61 in. Hg/100 kPa atmospheric pressure.

SERIES AVAILABILITY	ENGINE					Exhaust S/D	TRANSMISSION TRANSAXLE	AXLE RATIO (std. first)
	Displ. Liters (in.³)	Carb. (Barrel, FI, etc.)	Compr. Ratio	SAE Net at RPM				
				Power kW (bhp)	Torque N-m (lb. ft.)			
	2.2	EFI	9.5	72 (97) @ 4200	165 (122) @ 3200		5 speed manual	2.57
							Automatic	3.02
	2.2	EFI turbo	8.1	109 (146) @ 5200	230 (170) @ 3600		5 speed manual	2.57
							Automatic	3.02

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Car Line **DODGE SHADOW**
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Engine description/Carb. Engine Code	2.2L (135.0 in³) EFI - EDF	2.2L (135.0 in³) EFI TURBO - EDG

ENGINE - GENERAL

Type & descr. (inline, V, angle, flat, location, front, mid, rear, transverse, long., sohc,dohc, ohv, hemi, wedge, pre-camber, etc.		Four-Cylinder, In-line, OHC Canted Front, Transverse	
Manufacturer		Chrysler Corp.	
No. of Cylinders		Four	
Bore		87.5 (3.44)	
Stroke		92.0 (3.62)	
Bore spacing (C/L to C/L)		96.0 (3.78)	
Cylinder block material & mass kg (lbs.)		Cast Iron 35.33 (77.9)	
Cylinder block deck height		237.8 (9.36)	
Deck clearance (minimum) (above or below block)		0.00	
Cylinder head material & mass kg (lbs.)		Aluminum 9.824 (21.66)	
Cylinder head volume (cm³)		48.5 - 51.5	
Head gasket thickness (compressed)		1.73 (0.068)	
Minimum combustion chamber total volume (cm³)		Clearance Volume: 65.31	Clearance Volume: 73.815
Cyl. no. system (front to rear)*	L. Bank	Right to left as installed in car 1, 2, 3, 4	
	R. Bank		
Firing order		1, 3, 4, 2	
Intake manifold matl. & mass [kg(wt., lbs.)]**		2.199 (4.850)	
Exhaust manifold matl. & mass [kg(wt., lbs.)]		5.93 (13.075)	
Recommended fuel (leaded, unleaded, diesel)		Unleaded fuel	Super or Premium Unleaded fuel
Fuel antiknock index $\frac{R + M}{2}$		87 Octane or higher	91 Octane or higher (recommended) 87 Octane or higher (acceptable)
Total dressed engine mass (wt) dry***		134.4 (295.7)	145.06 (319.8)

Engine - Pistons

Material & mass, g (weight, oz.) piston only	Aluminum 457 ± 2 (16.12)	Aluminum 441 ± 3 (15.5)

Engine - Camshaft

Location		Overhead
Material & mass kg (weight, lbs.)		Hardenable cast iron 2.903 (6.40)
Drive type	Chain/belt	Belt
	Width/pitch	Width: 24.5 (0.965); Pitch: 9.52 (0.375)

*Rear of engine - drive takeoff. View from drive takeoff end to determine left & right side of engine.

**Finished state

***Dressed engine mass (weight) includes the following: Starter, Alternator, Manifold, Water Pump, Engine Mounted Emission Controls, Drive Belts, Oil Filter, Engine Mounts Front & Right and Throttle Controls as required, Power Steering Pump

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Engine Description/Carb.	**2.2L (135.0 in.3)**
Engine Code	**EFI - EDF; EFI Turbo - EDG**

Engine - Valve System

Hydraulic lifters (std., opt., NA)		Standard
Valves	Number intake/exhaust	4/4
	Head O.D. intake/exhaust	40.6 mm/35.4 mm

Engine - Connecting Rods

Material & mass [kg., (weight, lbs.)]*	Forged Steel: 0.691 (1.52)

Engine - Crankshaft

Material & mass [kg., (weight, lbs.)]		Nodular Iron: 16.1 (35.6)
End thrust taken by bearing (no.)		Three
Number of main bearings		Five
Seal (material, one, two piece design, etc.)	Front	
	Rear	

Engine - Lubrication System

Normal oil pressure[kPa (psi) at eng rpm]	345 (50) @ 2000
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full flow (filter change for turbo engines specified at every oil change
Capacity of c/case, less filter-refill-L (qt.)	3.8 (4)

Engine - Diesel Information

Diesel engine manufacturer		
Glow plug, current drain at 0°F		
Injector nozzle	Type	
	Opening pres [kPa(psi)]	
Pre-chamber design		
Fuel inj. pump	Manufacturer	
	Type	
Fuel inj. pump drive (belt,chain,gear)		
Supplementary vacuum source (type)		
Fuel heater (yes/no)		
Water separator description (std., opt.)		
Turbo manufacturer		
Oil cooler type (oil to engine coolant; oil to ambient air)		
Oil filter		

Engine - Intake System

Turbo charger - manufacturer	Garrett
Super charger - manufacturer	
Charge cooler	--

*Finished state

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Engine Description/Carb.	2.2L (135.0 in³) EFI - EDF		2.2L (135.0 in³) EFI Turbo - EDG	
Engine Code	WO/AC	W/AC	WO/AC	W/AC

Engine - Cooling System

Coolant recovery system (std., opt., n.a.)		Standard			
Coolant fill location (rad., bottle))		fill through radiator and maintain coolant level in bottle			
Radiator cap relief valve pressure [kPa (psi)]		96-124 (14-18)			
Circulation thermostat	Type (choke, bypass)	Choke, Wax Pellet Operated			
	Starts to open at °C(°F)	90.6 (195)			
Water Pump	Type (centrifugal, other)	Centrifugal			
	GPM 1000 pump RPM	-			
	Number of pumps	One			
	Drive (V-belt, other)	Multi-Groove Belt			
	Bearing type	Integral Ball Bearing			
	Impeller material	Steel			
	Housing material	Cast Aluminum			
By-pass recirculation [type (inter., ext.)]		ext. in series with heater			
Cooling System Capacity	With heater - L(qt.)	8.5 (9.0)			
	With air cond. - L(qt.)	-			
	Opt. equip. [specify - L(qt.)]	8.5 (9.0)			
Water jackets full length of cyl. (yes, no)		Yes			
Water all around cylinder (yes, no)		No			
Water jackets open at head face (yes, no)					
Radiator Core	Std., A/C, HD				
	Type (cross-flow, etc.)	Cross-Flow			
	Construction (fin&tube, mechanical, braze, etc.)	Tube & fin mech. assembled	Tube & Fin Spacer, Soldered, 1 Row		
	Material, mass[kg(wt., lbs.)]	aluminum	Copper - Brass		
	Width	533 (20.98)	533.4 (21.0)		
	Height	377.5 (14.86)	387.6 (15.26)		
	Thickness	34 (1.34)	17.8 (0.7)		
	Fins per inch	14.5	16 (man.) / 19 (auto)		
Radiator end tank material		Nylon 66			
Fan	Std., elec., opt.	Electric			
	Number of blades & type (flex, solid, material)	2-Blade Metal		5-Blade Plastic	
	Diameter & projected width	315(12.4)/33(1.3)	360 (14.2) / 46 (1.8)	356 (14)/42(1.65)	
	Ratio (fan to crankshaft rev.)	-			
	Fan cutout type	Electric Motor			
	Drive type (direct, remote)	-			
	RPM at idle (elec.)	1150	1780	2150	
	Motor rating (wattage) (elec.)	44	130	180	
	Motor switch (type & loc.)(elec.)	Thermistor, Water Box & A/C			
	Switch point (temp., press.) (elec.)	210° F (Low Speed); 230° F (High Speed)			
	Fan shroud (material)	Metal		Plastic	

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Engine Description/Carb. / Engine Code			2.2L (135.0 in³) Electronic Fuel Injection EDF	2.2L (135.0 in³) Turbo, Electronic Fuel Injection EDG
Engine - Fuel System (See supplemental page for details of Fuel Injection, Supercharger, Turbocharger, etc. if used)				
Induction type: carb., fuel inj. sys., etc.			electronic fuel injection	
Carburetor	Mfr.			
	Choke (type)			
	Idle spd. rpm (spec. neutral or drive and propane if used)	Manual	900	900
		Automatic	900 neutral 700 drive	900 neutral 800 drive
Idle A/F mix				
Fuel Injection	Point of injection (no.)		throttle body (1)	port injection (4)
	Constant,pulse, flow		pulse	
	Control (electronic, mech.)		electronic	
	System pressure [kPa (psi)]		100 (14.5)	379.5 (55.1) ± Manifold Vacuum
Intake manifold heat control (exhaust or water thermostatic or fixed)			water	none
Air cleaner type	Standard		oil -wetted paper element	
	optional		--	
Fuel pump	Type (elec. or mech.)		electric	
	Location (eng., tank)		in fuel tank	in fuel tank
	Pressure range [kPa (psi)]		152 - 655 (22 - 95) @ 12V & 0 flow	503-875 (73-122) @ 120 pph & 12V

Fuel Tank

Capacity [refill L (gallons)]		53 (14.0)
Location (describe)		forward of axle
Attachment		terne plated strap to floor pan
Material & mass [kg (weight lbs.)]		terne plated steel
Filler pipe	Location & material	external, right rear quarter panel; lead-dipped steel
	Connection to tank	rubber grommet
Fuel line (material)		duplex-coated steel
Fuel hose (material)		fuel resistant rubber
Return line (material)		duplex-coated steel
Vapor line (material)		terne plated steel
Extended range tank	Opt., n. a.	
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
Auxiliary tank	Opt., n. a	
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
	Selector switch or valve	
	Separate fill	

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Engine Description/Carb.	2.2L (135.0 in³) Electronic Fuel Injection	2.2L (135.0 in³) Turbo, Electronic Fuel Injection
Engine Code	EDF	EDG

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, eng. modifications)		(a)	(b)
	Air Injection	Pump or pulse	pulse	none
		Driven by	exhaust pressure	--
		Air distribution (head, manifold, etc.)	single point	--
		Point of entry	exhaust manifold collector	--
	Exhaust Gas Recirc-ulation	Type (controlled flow, open orifice, other)	controlled flow	
		Exhaust source	manifold collector	
		Point of exhaust inj., (spacer, carb., manif., etc)	intake manifold	
	Catalytic Converter	Type	3-way + oxidation	3-way
		Number of	one	
		Location(s)	below exhaust manifold	under floor
		Volume [L(in³)]	1.23 (75) 3WC + 0.74 (45) ox.	1.80 (110) 3WC
		Substrate type	monolithic	monolithic
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		closed induction system	
	Energy source (manifold, vacuum, carburetor, other)		manifold vacuum	
	Discharges (to intake manif., other)		intake manifold	
	Air inlet (breather cap, other)		air cleaner	
Evaporative emission control	Vapor vented to (crankcase, canister, other)	Fuel tank	canister	
		carburetor	--	
	Vapor storage provision		canister	
Electronic system	Closed loop (yes/no)		yes - hot engine	
	Open loop (yes/no)		yes - cold engine	

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		single w/120 in³ conv. & air inj.	single w/110 in³ converter
Muffler no. & type (reverse flow, straight through separate resonator) Mat'l & mass [kg(weight lbs.)]		one, reverse flow	
		aluminized steel	stainless steel
Resonator no. & type		none	
Exhaust pipe	Branch o.d., wall thickness	50.8 × 1.4 (2.00 × 0.055)	57/63.5 × 1.4 (2.2/2.5 × 0.055)
	Main o.d., wall thickness	47.8 × 1.4 (1.88 × 0.055)	63.5 × 1.4 (2.50 × 0.055)
	Material & mass [kg(weight lbs.)]	stainless steel	stainless steel
Intermediate pipe	o.d., & wall thickness	47.8 × 1.1 (1.88 × 0.043)	57/50.8 × 1.4 (2.2/2.0 × 0.055)
	Material & mass [kg(weight lbs.)]	aluminized steel	stainless steel
Tail pipe	o.d., & wall thickness	47.8 × 1.1 (1.88 × 0.043)	50.8 × 1.1 (2.00 × 0.043)
	Material & mass [kg(weight lbs.)]	aluminized steel	stainless steel

(a) aspirator, exhaust gas recirculation, engine modifications, catalytic converter
(b) exhaust gas recirculation, engine modifications, catalytic converter

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Engine Description/Carb. Engine Code	2.2L (135.0 in³) EFI EDF	2.2L (135.0 in³) Turbo EFI EDG

Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.) (mfr.)	N.A.
Manual 4-speed (std., opt., n.a.) (mfr.)	N.A.
Manual 5-speed (std., opt., n.a.) (mfr.)	standard
Manual overdrive (std., opt., n.a.) (mfr.)	N.A.
Automatic (std., opt., n.a.) (mfr.)	optional
Automatic overdrive (std., opt., n.a.) (mfr)	N.A.

Manual Transmissions/Transaxle

Number of forward speeds			5
Transmission ratios	In first		3.29
	In second		2.08
	In third		1.45
	In fourth		1.04
	In fifth		0.72
	In overdrive		--
	In reverse		3.14
Synchronous meshing (specify gears)			all forward gears
Shift lever location			floor
Lubricant	Capacity [L(pt.)]		2.15 (4.55)
	Type recommended		Mopar Dexron II automatic transmission fluid
	SAE viscosity number	Summer	--
		Winter	--
		Extreme cold	--

Clutch (Manual Transmission)

Make, type, engagement (describe) - (hydraulic, cable, rod)		Luk, dry disc cable	Aisen Seiki, dry disc cable	Fichtel & Sachs, dry disc cable
Assist (yes, no/percent)		no		
Type pressure plate springs		belleville		
Total spring load [N(lb.)]		4400 (989)	3880 (872)	5700 (1282)
No. of clutch driven discs		one		
Clutch facing	Material	woven asbestos		
	Manufacturer	Textar		
	Part Number	A302295201	31501-99838	181861877001
	Rivets/Plate	16		
	Rivet Size	9.50 (0.374)	8.00 (0.315)	10 (0.39)
	Outside & inside diameter	215 x 154 (8.46 x 6.06)	215 x 140 (8.46 x 5.51)	228 x 150 (8.98 x 5.91)
	Total eff. area [cm² (in²)]	353.6 (54.8)	418.2 (64.8)	438.0 (67.9)
	Thickness	3.45 (0.136)	3.5 (0.138)	3.5 (0.138)
	Engagement cushion method	wave spring segments		
Release Bearing	Type & method of lubrication	angular contact ball bearing, permanently lubed with grease		
Torsional Damping	Method: springs, frictional material	coil springs and fiber friction washers		

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Engine Code	EDF	EDG

Automatic Transmission/Transaxle

Trade Name		Torqueflite	
Type and special features (describe)		Torque Converter with Automatically Operated Planetary Transmission and Parallel Axis Final Drive	
Selector	Location	Floor	
	Ltr./No. designation	PRND21	
Gear ratios	R	2.10	
	D	2.69, 1.55, 1.00	
	L_3	-	
	L_2	2.69, 1.55	
	L_1	2.69	
Max. upshift speed - drive range [km/h (mph)]		114 (71)	129 (80)
Max. kickdown speed - drive range [km/h (mph)]		106 (66)	119 (74)
Min. overdrive speed [km/h (mph)]		-	
Torque converter	Number of elements	Three	
	Max. ratio at stall	2.00:1	
	Type of cooling (air, liquid)	Liquid	
	Nominal diameter	241 (9.5)	
Lubricant	Capacity [refill L (pt.)]	8.40 (17.75) (a)	
	Type recommended	Dexron II Automatic Transmission Fluid	
Oil cooler (std., opt., NA, internal, external, air, liquid)		Std, Liquid	

(a) Torque Converter, Transmission & Differential

Axle or Front Wheel Drive Unit

Type (front, rear)		Front	
Description		Transaxle	
Limited slip differential (type)		N.A.	
Drive pinion offset		-	
Drive pinion (type)		Helical	
No. of differential pinions		Two	
Pinion/differential adjustment (shim, other)			
Pinion/differentialbearing adjustment (shim, other)		Shim	
Driving wheel bearing (type)		Double Row Ball	
Lubricant	Capacity [L (pt.)]		
	Type recommended		
	SAE viscosity number — Summer		
	SAE viscosity number — Winter		
	SAE viscosity number — Extreme cold		

Axle or Transaxle Ratio and Tooth Combinations (See 'Power Teams' for axle ratio usage.)

Axle ratio (or overall top gear ratio)		2.78	3.02
No. of teeth	Pinion	20	21
	Ring gear or gear	61	60
Ring gear o.d.		187.40 (7.38)	184.53 (7.26)
Transaxle	Transfer gear ratio	.91	1.06
	Final drive ratio	3.05	2.86

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Axle Shafts - Front Wheel Drive

Number used			Two	
Type (straight, solid bar, tubular, etc.)		Left	Solid bar	
		Right	Tube	Solid bar
Outer diam. x length* x wall thick-ness	Manual transmission	Left	-	
		Right	-	
	Automatic transmission	Left	GKN-EUR:22.86x365.4(0.9x14.39)(a)	Citroen: 22.86x363(0.90x14.29) (c)
		Right	(b)	Same as above
	Optional transmission	Left	-	
		Right	-	
Slip Yoke	Type		-	
	Number of teeth		-	
	Spline o.d.		-	
Universal joints	Make and mfg. no.	Inner	(d)	GKN-EUR: GI72 or Citroen
		Outer	(e)	GKN EUR: 95 AC or Citroen
	Number useds		Two	
	Type, size, plunge	Inner	Tripod plunge	
		Outer	Rzeppa-fixed	
	Attach (u-bolt, clamp, etc.)		-	
	Bearing	Type (plain, anti-friction)	-	
		Lubrication (fitting, prepack)	Prepack	
Drive taken through (torque tube, arms or springs)			-	
Torque taken through (torque tube, arms or springs)			-	

*Centerline to centerline of universal joints, or to centerline of attachment

(a) GKN-US: 24.2x364.1 (0.95x14.33) or Citroen:22.86x363 (0.90x14.29) or SSG: 23.81x358.0 (0.937x14.095)

(b) GKN-EUR: 40.5x600.8x2.7 (1.59x23.65x1.0) .GKN-US: 40.5x603.3x3.72 (1.59x23.75x0.146) or Citroen: 40x598.3x3.2 (1.57x23.56x0.126) or SSG: 38.0x59.1x5.0 (1.496x23.272x0.197)

(c) or GKN-Eur: 22.86x362.3(0.90x14.26)

(d) GKN-EUR: GI69 , Citroen, GKN-US:C-2000 or SSG #19

(e) GKN-EUR: 92 AC , Citroen, GKN-US:C-2000 or SSG #19

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Body Type And/Or	**All**
Engine Displacement	**Firm Feel (SDC)**

Suspension - General

Car leveling	Std./opt./n.a.	N.A.
	Type (air, hyd., etc.)	-
	Manual/auto controlled	-
Provision for brake dip control		Inclined Control Arm Strut
Provision for accl. squat control		None
Provisions for car jacking		Scissors Type Sill Jack Jack Supports Located at Each End of Body Sills
Shock absorber (front & rear)	Type	Gas-charged
	Make	Front:Delco Rear: Monroe or Maremont
	Piston diameter	Front: 32 (1.26); Rear: 30.2 (1.19)
	Rod diameter	Front: 32 (1.26); Rear: 25.4 (1.00)

Suspension - Front

Type and description		Iso-Strut
Drive and torque taken through		lower control arm
Travel	Full jounce	94 (3.70)
	Full rebound	106 (4.12)
Spring	Type (coil, leaf, other) & mat'l.	Coil; AISI .5160H Chromium Alloy Steel
	Insulators (type & material)	Compression: Rubber
	Size (coil design height & i.d. bar length x dia.)	216 x 152 I.D. (8.5 x 6,0) I.D.
	Spring rate [N/mm (lb./in.)]	14.9 (85)
	Rate at wheel [N/mm (lb./in.)]	18.4 (105)
Stabilizer	Type (link, linkless, frameless)	Linkless
	Material & bar diameter	AISI 1090 Spring Steel 27.0 (1.06)

Suspension - Rear

Type and description			Trailing Flex-arm with track bar
Drive and torque taken through			Arm
Travel	Full jounce		102 (4.02)
	Full rebound		(3.54)
Spring	Type (coil, leaf, other) & mat'l		Coil: AISI 5160H Chromium Alloy Steel
	Size (length x width, coil design height & i.d., bar length x dia.)		229 x 102 I.D. (9.0 x 4.01 I.D.)
	Spring rate [N/mm (lb./in.)]		28 (160) curb
	Rate at wheel [N/mm (lb./in.)]		17.8 (102) position
	Insulators (type & material)		Compression: Rubber
	If leaf	No. of leaves	-
		Shackle (comp. or tens.)	-
Stabilizer	Type (link,linkless,frameless)		Frameless ERW Tube
	Material & bar diameter		80KSI HSLA Steel: 28.6 (1.125) O.D.
Track bar (type)			Channel type

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Brakes - Service

Description				four-wheel hydraulic actuated system	
Brake type (std., opt., n.a.)	Front (disc or drum)			disc	
	Rear (disc or drum)			drum	
Self-adjusting (std., opt., n.a.)				standard	
Special valving	Type (proportion, delay, metering, other)			dual proportioning valve	
Power brake (std., opt., n.a.)				standard	
Booster type (remote, integral, vac., hyd., etc.)				vacuum, single or tandem	
Vacuum source (inline, pump, etc.)				intake manifold	
Vacuum reservoir (volume in.³)				--	
Vacuum pump-type (elec, gear driven, belt driven, if other so state)				--	
Anti-skid device type (std., opt., n.a.) (F/R)				N. A.	
Effective area [cm²(in.²)]* (F/R)				391.44 (60.67)	423.12 (65.58)
Gross lining area [cm²(in.²)]** (F/R)				417.58 (64.73)	456.90 (70.82)
Swept area[cm²(in.²)]*** (F/R)				1302.97 (201.96)	1681.10 (260.57)
Rotor	Outer working diameter		F/R	front: 228 (8.98)	front: 256.2 (10.09)
	Inner working diameter		F/R	front: 153 (6.02)	front 158.2 (6.23)
	Thickness		F/R	front: 12.64 (0.498)	FRONT: 24.0 (0.945)
	Material & type (vented/solid)		F/R	front: damped cast iron, solid	front: damped cast iron, vented
Drum	Diameter & width		F/R	rear: 200 (7.87) x 37.62 (1.48)	
	Type and material		F/R	rear: cast composite	
Wheel cylinder bore				front: 54 (2.13); rear: 15.87 (0.625)	
Master cylinder	Bore/stroke		F/R	21.0 (0.827)/32.79 (1.291)	
Pedal arc ratio				3.28: 1 power	
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]				power: 9584 (1390)	
Lining clearance			F/R	no major adjustments	
Brake Lining	Front wheel (a)	Bonded or riveted (rivets/seg.)		riveted, 5/shoe	riveted: 6/shoe
		Rivet size		3.57 (0.14) dia. x 7.57 (0.3)	4.65 (0.18) dia. x 7.5 (0.3)
		Manufacturer		Abex	Bendix
		Lining code *****		Abex-6006-EE	BX-JD-EE
		Material		molded metallic	
		****	Primary or out-board	3987 x 12.34 (6.18 x 0.486)	4970 x 11.08 (7.70 x 0.436)
		Size	Secondary or in-board	3987 x 12.34 (6.18 x 0.486)	4970 x 11.08 (7.70 x 0.436)
		Shoe thickness (no lining)		outer: 4.83 (0.190); inner: 5.18	5.33 (0.210)
	Rear wheel	Bonded or riveted (rivets/seg.)		riveted, 10/shoe	
		Manufacturer		Bendix	
		Lining code *****		--	
		Material		rolled asbestos	
		****	Primary or out-board	198.56 x 32.5 x 6.65 (7.82 x 1.28 x 0.262)	
		Size	Secondary or in-board	198.56 x 32.5 x 6.65 (7.82 x 1.28 x 0.262)	
		Shoe thickness (no lining)		2.17 (0.0854)	

* Excludes rivet holes, grooves, chamfers, etc.
** Includes rivet holes, grooves, chamfers, etc.
*** Total swept area for brakes. (Drum brake: Widest lining contact width for each brake x its contact circumference.)
(Disc brake: Square of Outer Working Dia. minus Square of inner Working Dia. multiplied by Pi/2 for each brake.)
**** Size for drum brakes includes length x width x thickness.
***** Manufacturer I.D., catalog or formulation designation and coefficient of friction classification.

(a) area x thickness

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line **DODGE SHADOW**
Model Year **1987** Issued **12-15-85** Revised (•) _____

Body Type And/Or Displacement	All

Tires and Wheels (Standard)

Tires	Size (load range)		P185/70 R 14, SL
	Type (bias, radial, etc.)		Steel Radial
	Inflation pressure (cold) for recommended max. vehicle load	Front [kPa (psi)]	240 (35)
		Rear [kPa (psi)]	240 (35)
	Rev./mile - at 70 km/h (45 mph)		862
Wheels	Type & material		Disc Steel or Cast Aluminum
	Rim (size & flange type)		14 x 5.5 JJ
	Wheel offset		40 (1.6)
	Attachment	Type (bolt or stud)	Stud
		Circle diameter	100 (3.94)
		Number & size	5 - M12 x 1.5mm
Spare	Tire and wheel (same, if other describe)		T115/70D14 compact spare (14 x 4.0 T)
	Storage position & location (describe)		Horizontal-Rear Floor Pan Under Cargo Floor

Tires and Wheels (Optional)

Size (load range)	P 205/50VR 15, SL
Type (bias, radial, etc.)	Steel Radial
Wheel (type & material)	Cast aluminum
Rim (size, flange type and offset)	15 x 6.0 JJ 40 (1.6)
Size (load range, ply)	
Type (bias, radial, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Size (load range, ply)	
Type (bias, radial, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Size (load range, ply)	
Type (bias, radial, etc.)	
Wheel (type & material)	
Rim (size, flange type and offset)	
Spare tire and wheel (if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position)	Conventional spare same as road tire and wheel (14" only)

Brakes - Parking

Type of control		Hand Release Lever
Location of control		Floor, Between Front Seats
Operates on		Rear Wheels
If separate from service brakes	Type (internal or external)	-
	Drum diameter	-
	Lining size (length x width x thickness)	-

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METRIC (U.S. Customary)

Car Line **DODGE SHADOW**
Model Year **1987** Issued **12 - 15 - 85** Revised (•) _____

Body Type And/Or Engine Displacement	**ALL**

SteeringManual (std., opt., n.a.)

Manual (std., opt., n.a.)					n.a.
Power (std., opt., n.a.)					standard
Adjustable steering wheel (tilt, swing, other)		Type and description			Tilt
		(Std., opt., n.a.)			Not Available
Wheel diameter** (W9) SAE J1100		Manual			n.a.
		Power			381 (15)
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)			11 (36.2)
		Curb to curb (l. & r.)			10.3 (33.9)
	Inside rear	Wall to wall (l. & r.)			5.7 (18.75)
		Curb to curb (l. & r.)			5.8 (19.0)
Scrub Radius*					-7 (0.28)
Manual	Gear	Type			--
		Make			--
		Ratios	Gear		--
			Overall		--
	No. wheel turns (stop to stop)				--
Power	Type (coaxial, linkage, etc.)				integral power gear
	Make				Saginaw or TRW
	Gear	Type			rack and pinion with integral power unit
		Ratios	Gear		--
			Overall		14.2:1
	Pump (drive)				pulley and belt, off crankshaft
	No. wheel turns (stop to stop)				2.5:1
Linkage	Type				rack and pinion (rod and ball directly attached to gear)
	Location (front or rear of wheels, other)				rear of wheels
	Tie rods (one or two)				2 (tie rod inners integral with rack and pinion gear)
Steering Axis	Inclination at camber (deg.)				13.36
	Bearings (type)	Upper			acetal thermoplastic bearing
		Lower			ball joint
		Thrust			acetal thermoplastic bearing
Steering spindle & joint type					Iso-Strut with lower ball joint
Wheel spindle	Diameter	Inner bearing			76/40 (3.0/1.57) dia.; 28/33 (1.1/1.3) wide
		Outer bearing			--
	Thread (size)				M22 x 1.5
	Bearing (type)				double row Unipack ball or tapered roller bearing

*The horizontal distance in the front elevation between wheel centerline and kingpin (ball joint) axis at ground.
**See page 21

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Car Line **DODGE SHADOW**
Model Year **1987** Issued **12-15-85** Revised (•) _____

Body Type And/Or Engine Displacement: **ALL**

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	-
		Camber (deg.)	-0.2° to + 0.8°
		Toe-in [outside track-mm (in.)]	5.6 (0.218) Toe-in to 3.2 (0.125) Toe-out
	Service reset*	Caster	Not adjustable
		Camber	Same as above
		Toe-in	Same as above
	Periodic M.V. inspection	Caster	-
		Camber	-
		Toe-in	-
Rear wheel at curb mass (wt.)	Service checking	Camber	-1.3° to + 0.3°
		Toe-in [outside track-mm (in.)]	7.6 (0.3) Toe-out to 7.6 (0.3) Toe-in
	Service reset*	Camber	Same as above (shim)
		Toe-in	Same as above (shim)
	Periodic M.V. inspection	Camber	-
		Toe-in	-

* Indicates pre-set, adjustable, trend set or other

Electrical - Instruments and Equipment

Speedometer	Type	Magnetic torque drive
	Trip odometer (std., opt., n.a.)	Standard
EGR maintenance indicator		-
Charge indicator	Type	Voltmeter
	Warning device	-
Temp. Indicator	Type	Magnetic gage
	Warning device	-
Oil pressure indicator	Type	Light
	Warning device	-
Fuel indicator	Type	Magnetic gage
	Warning device	-
Wind shield wiper	Type (standard)	Electric 2-speed non- depressed park
	Type (optional)	Electric 2-speed, intermittent wipe
	Blade length	457 (18)
	Swept area [cm^2 ($in.^2$)]	5697 (883)
Windshield washer	Type (standard)	Electric (arm-mounted)
	Type (optional)	-
	Fluid level indicator	optional
Horn	Type	Low note seashell
	Number used	one
Other		Tachometer - standard

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Car Line **DODGE SHADOW**
Model Year **1987** Issued **12-15-85** Revised (•)

Engine Description/Carb.	**2.2L (135.0 in.3)**	**2.2L (135.0 in.3)**
Engine Code	**EFI, EDF**	**EFI Turbo - EDG**

Electrical - Supply System

Battery	Manufacturer	Mopar	
	Model, std., (opt.)	GRP 26 (GRP 34)	GRP 34
	Voltage	12V	
	Amps at 0°F cold crank	335 (500) (c)	400 (500)
	Minutes-reserve capacity	62 (10)	100 (62)
	Amp/hr. - 20 hr. rate	-	
	Location	Left front fender side shield	
Generator or alternator	Manufacturer	Mopar	
	Rating	90 Amp	
	Ratio (alt. crank/rev.)	2.4:1	
	Optional (type & rating)	-	
Regulator	Type	Electronic	

Electrical - Starting System

Start.motor	Current drain at 0°F	210-250A
Motor drive	Engagement type	Solenoid shift
	Pinion engages from (front, rear)	Front

Electrical - Ignition System

Type	Electronic (std., opt., n.a.)		Standard	
	Other (specify)		(a)	(b)
Coil	Make		UTC or Hanshin	
	Model		5226865	5227372
	Current	Engine stopped - A	3.0A	
		Engine idling - A	1.9A	
Spark plug	Make		Champion	
	Model		RN12YC	
	Thread (mm)		14 mm	
	Tightening torque (N-m (lb-ft)]		(20)	
	Gap		(0.035in.)	
	Number per cylinder		one	
Distributor	Make		Chrysler	
	Model		5226575	5226525

Electrical - Suppression

Locations & type	

(a) Electronic fuel injection - Engine control electronics
(b) Electronic fuel injection turbo-charged - Engine control electronics
(c) 400 (100 min.) Standard w/heated backlite

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line DODGE SHADOW
Model Year 1987 Issued 12-15-85 Revised (•)

Body Type	ALL

Body

Structure	
Bumper system front - rear	Front - UHSS - 120,000 psi 11.3kg (25lb) Rear - UHSS - 120,000 psi 10.0kg (22lb)
Anti-corrosion treatment	Extensive use of galvanized steel.

Body - Miscellaneous Information

Type of finish (lacquer, enamel, other)		Buffable Acrylic Enamel
Hood	Hinge location (front, rear)	Rear
	Type (counterbalance, prop)	Prop
	Release control (internal, external)	Internal
Trunk lid	Type (counterbalance, other)	-
	Internal release control (elec., mech., n.a.)	-
Hatch-back lid	Type (counterbalance, other)	Gas Pressurized Struts
	Internal release control (elec., mech., n.a.)	Mechanical
Station wagon		
Vent window control (crank, friction, pivot, power)	Front	None
	Rear	None
Seat cushion type (e.g., 60/40, bucket, bench, wire, foam, etc.)	Front	Bucket - flex-o-lator mat
	Rear	Full Volume Foam
	3rd seat	-
Seat back type (e.g., 60/40, bucket, bench, wire, foam, etc.)	Front	Bucket - flex-o-lator mat
	Rear	Full Volume Foam
	3rd seat	-

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line DODGE SHADOW
Model Year 1987 Issued 12-15-85 Revised (•)

Body Type	24	44

Restraint System

Active restraint system	Standard/optional	Standard
	Type and description	Front: Lap and shoulder belt Rear: Lap belt
	Location	Front: two Rear: three
Passive seat belts	Standard/optional	-
	Power/manual	-
	2 or 3 Point	-
	Knee bar/lap belt	-

Frame

Type and description (separate frame, unitized frame, partially unitized frame)		Unitized construction	
Glass	**SAE Ref. No.**		
Windshield glass exposed surface area [cm^2(in^2)]	S1		
Side glass exposed surface area [cm^2(in^2)]	S2	9351 (1449)	9952 (1543)
Backlight glass exposed surface area [cm^2(in^2)]	S3		
Total glass exposed surface area [cm^2(in^2)]	S4		
Windshield glass (type)		Laminated safety glass	
Side glass (type)		Heat treated safety glass	
Backlight glass (type)		Heat treated safety glass	

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line DODGE SHADOW
Model Year 1987 Issued 12-15-85 Revised (•)

Body Type | ALL

Convenience Equipment (standard, optional, n.a.)

Air conditioning (manual, auto, temp. control)		Manual, opt.
Clock (digital, analog)		Digital, std. w/radio
Compass/thermometer		N.A.
Console (floor, overhead)		Std., full length w/ center arm rest option
Defroster, elec. backlight		opt.
Electronic	Diagnostic warning (integrated, individual)	volt
	Instrument cluster (list instruments)	Tach., fuel, temp., speedometer, trip odometer
	Keyless entry	N.A.
	Tripminder (avg. spd., fuel)	N.A.
	Voice alert (list items)	N.A.
	Other	N.A.
Fuel door lock (remote, key, electric)		N.A
Lamps	Auto head on / off delay, dimming	N.A.
	Cornering	N.A.
	Courtesy (map, reading)	Opt.
	Door lock, ignition	Opt.
	Engine compartment	Opt.
	Fog	N.A.
	Glove compartment	Opt.
	Trunk	Opt.
	Other	Ash receiver
Mirrors	Day/night (auto. man.)	Manual, std.
	L.H (remote, power, heated)	manual - std, power - opt.
	R.H. (convex, remote, power, heated)	Manual - std, power - opt.
	Visor vanity (RH / LH, illuminated)	RH - std., non illuminated
Parking brake-auto release (warning light)		std.
Power equipment	Door locks / deck lid - specify	Door locks, liftgate opt.
	Seat (2-4-6 way) heated (driver, pass, other) lumbar, hip, thigh support (power, manual) reclining (driver, pass) memory (1-2 preset, recline)	Mnaual recliners driver & passenger
	Side windows	opt.
	Vent windows	N.A.
	Rear window	N.A.
Radio systems	Antenna (location, whip, w/shield, power)	Whip std., right front fender
	AM,FM, stereo, tape, CB	AM - std., AM/FM stereo - opt., AM/FM stereo w/cass - opt.
	Speaker (number, location)Premium sound	AM (one I.P. top), AM/FM stereo (2 door, 2 rear shelf)
Roof open air/fixed (flip-up, sliding, "T")		sun roof/flip up - opt.
Speed control device		opt.
Speed warning device (light, buzzer, etc.)		N.A.
Tachometer (rpm)		std.
Telephone system - mobile		n.a.
Theft protection-type		Inside hood release, locking steering column

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)
Car and Body Dimensions

Car Line DODGE SHADOW
Model Year 1987 Issued 12-15-85 Revised (•)

See Key Sheets for Definitions

All dimensions to ground are for comparitive purposes only. Dimensions are to be shown for all base body models of each car line
SAE Ref. no. refers to the definition published in SAE Recommended Practice J1100 "Motor Vehicle Dimensions," unless otherwise specified.

Body Type	SAE Ref. No.	24	44
Width			
Tread (front)	W101	1464 (57.6)	
Tread (rear)	W102	1453 (57.2)	
Vehicle width	W103	1710 (67.3)	
Body width at SgRP (front)	W117	1708 (67.2)	
Vehicle width (front doors open)	W120	4074 (160.4)	3431 (135.1)
Vehicle width (rear doors open)	W121		3297 (129.8)
Front fender overall width	W106	1670 (65.7)	
Rear fender overall width	W107	1710 (67.3)	
Tumble-home (deg.)	W122	24°	
Length			
Wheelbase	L101	2463 (97)	
Vehicle length	L103	4361 (171.7)	
Overhang (front)	L104	974 (38.3)	
Overhang (rear)	L105	924 (36.4)	
Upper structure length	L123	2413 (95)	
Rear wheel C/L "X" coordinate	L127	2552 (100.5)	
Cowl point "X" coordinate	L125	486 (19.1)	
Front end length at centerline	L126	1350 (53.1)	
Rear end length at centerline	L129	598 (23.5)	
Height*			
Passenger distribution (front/rear)	PD1,2,3	2 front, 3 rear	
Trunk/cargo load		14.7 cu. ft.	
Vehicle Height	H101	1339 (52.7)	
Cowl point to ground	H114	911 (35.9)	
Deck point to ground	H138	922 (36.3)	
Rocker panel-front to ground	H112	203 (8.0)	
Bottom of door closed-rear to ground	H135	231 (9.1)	
Windshield slope angle	H122	56°	
Backlight slope angle	H121	54°	
Ground Clearance			
Front bumper to ground	H102	246 (9.7)	
Rear bumper to ground	H104	261 (10.3)	
Bumper to ground [(front) at curb mass (wt.)]	H103	263 (10.4)	
Bumper to ground [rear at curb mass (wt.)]	H105	344 (13.5)	
Angle of approach (degrees)	H106	16°	
Angle of departure (degrees)	H107	16°	
Ramp breakover angle (degrees)	H147	12°	
Axle differential to ground (front/rear)	H153	Front 141(5.6)	
Min. running ground clearance	H156	117 (4.6)	
Location of min. run. grd. clear.		Front susp. c/mbr. bracket	

*All vehicle height and ground clearances are made at the Manufacturer's Design Load Weight, unless otherwise specified
Manufacturers Design Load Weight is defined with indicated passenger distribution and trunk/cargo load.
All linear dimensions are in millimeters (inches) unles otherwise noted.

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)
Car and Body Dimensions

Car Line **DODGE SHADOW**
Model Year **1987** Issued **12-15-85** Revised (•) _____

See Key Sheets for Definitions

Body Type	SAE Ref. No.	24	44

Front Compartment

SgRP front, "X" coordinate	L31	1398 (55.0)	
Effective head room	H61	973 (38.3)	
Max. eff. leg room (accelerator)	L34	1055 (41.5)	
SgRP to heel point	H30	271 (10.7)	
SgRP to heel point	L53	841 (33.1)	
Back angle	L40	24°	
Hip angle	L42	96°	
Knee angle	L44	122°	
Foot angle	L46	87°	
Design H-point, front travel	L17	197 (7.8)	
Normal driving & riding seat track trvl.	L23	178 (7.0)	
Shoulder room	W3	1382 (54.4)	1390 (54.7)
Hip room	W5	1404 (55.3)	1408 (55.4)
Upper body opening to ground	H50	1101 to "0" (43.3)	
Steering wheel maximum diameter*	W9	381 (15.0)	
Steering wheel angle	H18	26°	
Accel. heel pt. to steer. whl. cntr.	L11	497 (19.6)	
Accel. heel pt. to steer. whl. cntr.	H17	637 (25.1)	
Steering wheel to C/L of thigh	H13	86 (3.4)	
Steering wheel torso clearance	L7	318 (12.5))	
Headlining to roof panel (front)	H37	17 (0.7)	
Undepressed floor covering thickness	H67	22 (0.9)	

Rear Compartment

SgRP Point couple distance	L50	740 (29.1)	
Effective head room	H63	949 (37.4)	
Min. effective leg room	L51	864 (34.0)	
SgRP (second to heel)	H31	516 (20.3)	
Knee clearance	L48	-25 (-1.0)	
Compartment room	L3	612 (24.1)	
Shoulder room	W4	1330 (52.4)	1384 (54.5)
Hip room	W6	-	1136 (44.7)
Upper body opening to ground	H51	-	1106 to "0" (43.5)
Back angle	L41	25°	
Hip angle	L43	83°	
Knee angle	L45	84°	
Foot Angle	L47	119°	
Headlining to roof panel (second)	H38	21 (0.8)	
Depressed floor covering thickness	H73	13 (0.5)	

Luggage Compartment

Usable luggage capacity [L (cu. ft.)]	V1	
Liftover height	H195	

Interior Volumes (EPA Classification)

Vehicle class (subcompact, compact, etc.)		Subcompact
Interior volume index (cu. ft.)		
Trunk/cargo index (cu. ft.)		

*See page 14

All linear dimensions are in millimeters (inches) unless otherwise noted.

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)
Car and Body Dimensions

Car Line DODGE SHADOW
Model Year 1987 Issued 12-15-85 Revised (•)

See Key Sheets for Definitions

Body Type	SAE Ref. No.	ALL

Station Wagon - Third Seat

SgRP couple distance	L85	
Shoulder room	W85	
Hip room	W86	
Effective leg room	L86	
Effective head room	H86	
SgRP to heel point	H87	
Knee clearance	L87	
Seat facing direction	SD1	
Back angle	L88	
Hip angle	L89	
Knee angle	L90	
Foot angle	L91	

Station Wagon - Cargo Space

Cargo length (open front)	L200	
Cargo length (open second)	L201	
Cargo length (closed front)	L202	
Cargo length (closed second)	L203	
Cargo length at belt (front)	L204	
Cargo length at belt (second)	L205	
Cartgo width (wheelhouse)	W201	
Rear opening width at floor	W203	
Opening width at belt	W204	
Max. rear opening width above belt	W205	
Cargo height	H201	
Rear opening height	H202	
Tailgate to ground height	H250	
Front seat back to load floor height	H197	
Cargo volume index [m^3($ft.^3$)]	V2	
Hidden cargo volume [m^3($ft.^3$)]	V4	
Cargo volume index-rear of 2-seat	V10	

Hatchback - Cargo Space

Cargo length at front seatback height	L208	928 (36.5)
Cargo length at floor (front)	L209	1575 (62.0)
Cargo length at second seatback height	L210	270 (10.6)
Cargo length at floor (second)	L211	877 (34.5)
Front seatback to load floor height	H197	560 (22.0)
Second seatback to load floor height	H198	482 (19.0)
Cargo volume index [m^3($ft.^3$)]	V3	
Hidden cargo volume [m^3($ft.^3$)]	V4	
Cargo volume index-rear of 2-seat	V11	

Aerodynamics*

Wheel lip to ground, front	
Wheel lip to ground, rear	
Frontal area [m^2(ft^2)](a)	1.98 (21.33)
Drag coefficient (Cd)	N.A.

* EPA Loaded Vehicle Weight, Loading Conditions
All linear dimensions are in millimeters (inches) unless otherwise noted.

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line **DODGE SHADOW**
Model Year **1987** Issued **12-15-85** Revised ( )

Body Type

Vehicle Fiducial Marks

Fiducial Mark Number*		Define Coordinate Location
Front		
Rear		
Fiducial Mark Number		
Front	W21	
	L54	
	H81	
	H161	
	H163	
Rear	W22	
	L55	
	H82	
	H162	
	H164	

*Reference - SAE Recommended Practice, J182, Motor Vehicle Fiducial Marks.
All linear dimensions are in millimeters (inches).

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line DODGE SHADOW
Model Year 1987 Issued 12 - 15 - 85 Revised (•) _____

Body Type	ALL

Lamps and Headlamp Shape*

Height above ground to center of bulb or marker	Headlamp (SAE - H127)	Highest**	635.1 (25.0)
		Lowest	not applicable
	Taillamp (SAE - H128)	Highest**	691.2 (27.2)
		Lowest	688.2 (27.1)
	Sidemarker	Front	489.6 (19.3)
		Rear	688.2 (27.1)
Height above ground to center of bulb or marker	Headlamp	Inside	--
		Outside**	528 (20.8)
	Taillamp	Inside	629 (24.8)
		Outside**	733 (28.9)
	Directional	Front	555 (21.9)
		Rear	629 (24.8)
Halogen headlamp (std., opt., n.a.)	Lo beam		standard
	Hi beam		standard
	Replaceable bulb		not available
	Shape		rectangular
Headlamp other than above	Lo beam		--
	Hi beam		--
	Replaceable		--
	Shape		--
	Type		--

*Measured at curb mass (weight)
**If single lamps are used enter here
All dimensions are in millimeters (inches) unless otherwise noted.

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line DODGE SHADOW
Model Year 1987 Issued 12-15-85 Revised (•) _____

Model	Vehicle Mass (Weight)							
	CURB MASS, kg. (weight, lb.)*			%PASS. MASS DISTRIBUTION				Shipping MASS, kg. (weight, lb.)**
				Pass. in front		Pass in Rear		
	Front	Rear	Total	Front	Rear	Front	Rear	
Standard Engine Model								
2.2L Engine (135.0 in³)								
Electronic Fuel Injection								
Dodge Shadow								
2 door hatchback	672	443	1115	47	53	17	83	1085
	(1482)	(977)	(2459)	(103)	(117)	(37)	(183)	(2393)
4 door hatchback	677	454	1131	47	53	17	83	1101
	(1494)	(1000)	(2494)					(2428)
Optional engine Model								
2.2L Engine (135.0 in³)								
Turbocharged								
Dodge Shadow								
2 door hatchback	703	446	1149	47	53	17	83	1119
	(1550)	(983)	(2533)					(2467)
4 door hatchback	709	456	1165	47	53	17	83	1135
	(1563)	(1006)	(2569)					(2503)

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line **DODGE SHADOW**
Model Year **1987** Issued **12-15-85** Revised (•) _____

Equipment	Optional Equipment Differential Mass (weight)*			Remarks
	MASS, kg. (weight, lb.)			
	Front	Rear	Total	
Automatic transmission				
2.2L EFI Engine	18	-2	16	
	(40)	(-4)	(36)	
2.2L Turbo engine	13	-1	12	
	(29)	(-2)	(27)	
Air conditioning	26	-2	24	
	(57)	(-4)	(53)	
Power steering				
2.2L EFI engine	9	1	10	
	(20)	(2)	(21)	
2.2L turbo engine	-	-	-	Standard
Sunroof	4	2	6	
	(9)	(5)	(14)	
Sport handling package				
2.2L EFI engine	3	3	6	
(incl. P185/70 R14RBL Tire)	(8)	(6)	(14)	
2.2L turbo engine	-	-	-	standard
Power windows				
2 door models				
with power door locks	3	2	5	
	(7)	(5)	(12)	
without power door locks	4	4	8	
	(9)	(9)	(18)	
AM/FM/MTX/ETR radio w/cass.	3	2	5	
	(5)	(5)	(10)	
AM/FM/MTX/ETR radio w/o cass.	1	2	3	
	(3)	(4)	(7)	
Coonvenience package	3	-	3	
(includes auto speed control	(6)	-	(6)	
and tilt steering column)				

*Also see Engine - General section for dressed engine mass (weight).

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Car Line **DODGE SHADOW**
Model Year **1987** Issued **12-15-85** Revised (•) _____

Optional Equipment Differential Mass (weight)*

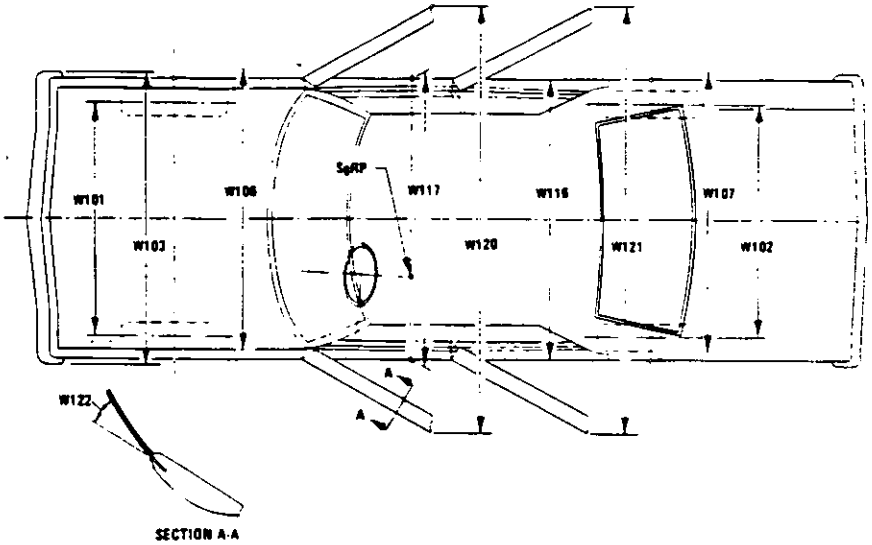
Equipment	MASS, kg. (weight, lb.)			Remarks
	Front	Rear	Total	
Power door locks				
2 door models				
wtih power windows	0.4	-	0.4	
	(1)	-	(1)	
without power windows	2	0.4	2	
	(4)	(1)	(4)	
Full console with ctr. arm rest				
2.2L EFI engine	2	2	4	
	(5)	(4)	(9)	
2.2L turbo engine	-	-	-	Standard
Protection package	2	3	5	
(incl floor mats, undercoat)	(5)	(6)	(11)	
Conventional spare tire				
2.2L EFI engine				
w/sport handling package	-1			
	(-2)	(12)	(12)	
w/o sport handling pkg.	-1	6	5	
	(-2)	(14)	(10)	
2.2L turbo engine	-	-	-	not applicable
ES package	0.4	4	4	
	(1)	(8)	(9)	

*Also see Engine - General section for dressed engine mass (weight).

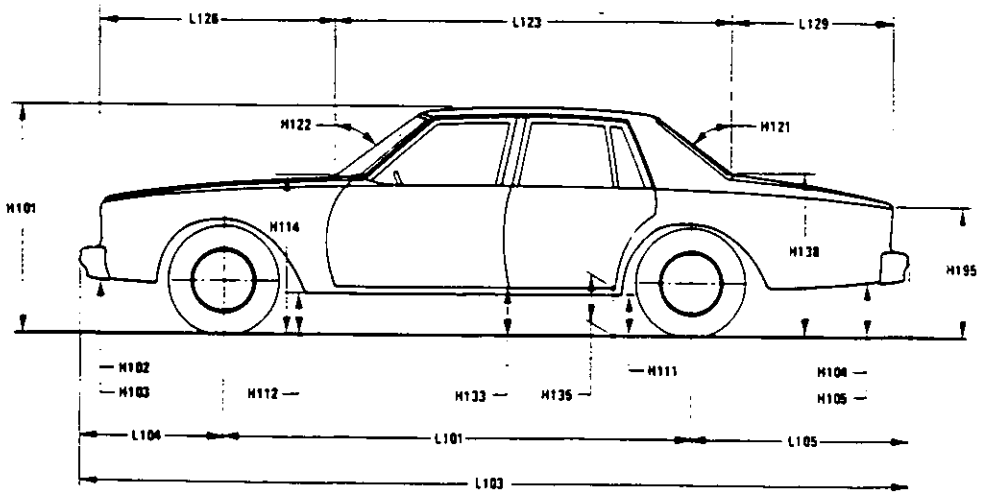
MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Exterior Car And Body Dimensions – Key Sheet

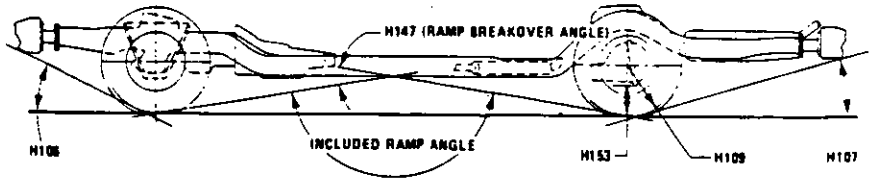
Exterior Width



Exterior Length & Height

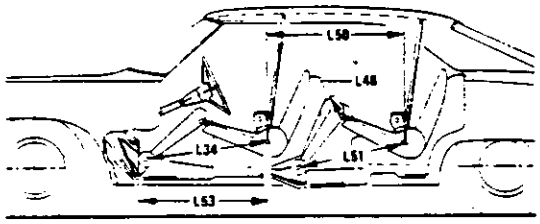


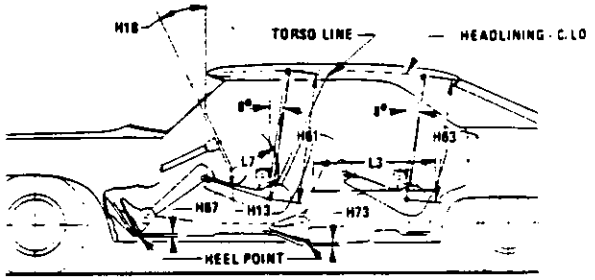
Exterior Ground Clearance

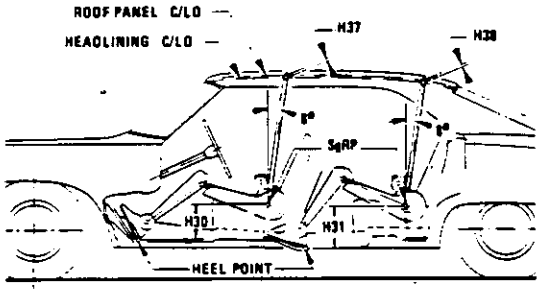


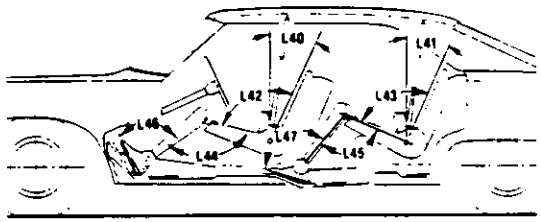
MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

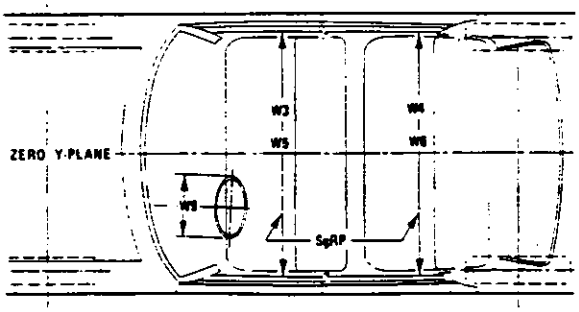
Interior Car And Body Dimensions – Key Sheet

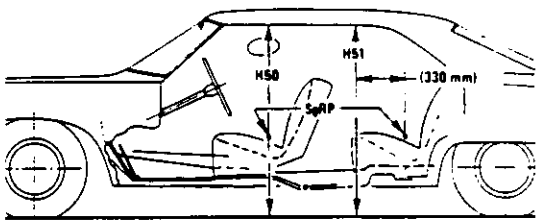






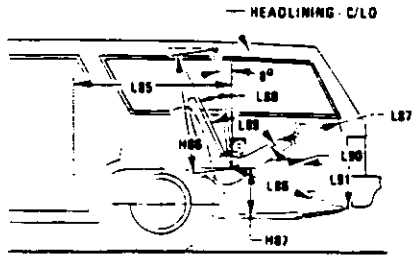


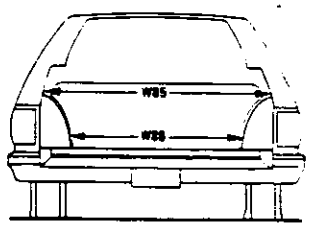




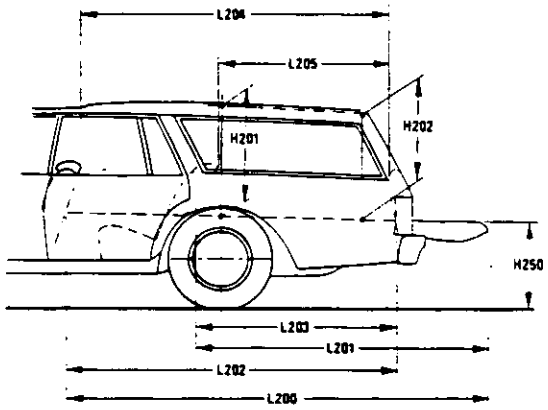
Interior Car And Body Dimensions – Key Sheet

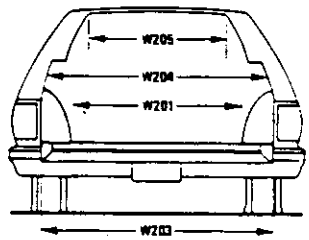
Third Seat



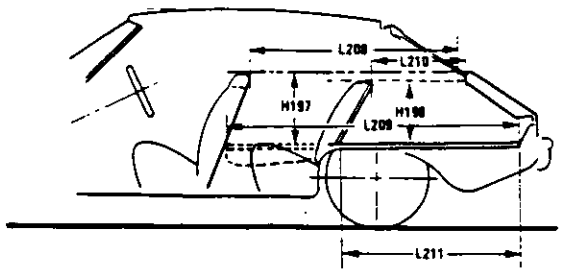


Cargo Space





Station Wagon



Hatchback

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Exterior Car And Body Dimensions – Key Sheet
Dimensions Definitions

Seating Reference Point

SEATING REFERENCE POINT means the manufacturer's design reference point which –

(a) Establishes the rearmost normal design driving or riding position of each designated seating position in a vehicle:

(b) Has coordinates established relative to the design vehicle structure:

(c) Simulates the position of the pivot center of the human torso and thigh: and

(d) Is the reference point employed to position the two dimensional templates described in SAE Recommended Practice J826, "Devices for Use in Defining and Measuring Vehicle Seating Accommodations. .

Width Dimensions

W101 TREAD–FRONT. The dimension measured between the tire centerlines at the ground.

W102 TREAD–REAR. The dimension measured between the tire centerlines at the ground. In case of dual wheels, the dimension will be measured to the centerline of tire and wheel assemblies.

W103 VEHICLE WIDTH. The maximum dimension measured between the widest point on the vehicle, excluding exterior mirrors, flexible mud flaps, marker lamps, but including bumpers, moldings, sheet metal protrusions or dual wheels, if standard equipment.

W106 FRONT FENDER WIDTH. The dimension measured between the widest points at the front wheel centerline, excluding moldings.

W107 REAR FENDER WIDTH. The dimension measured between the widest points at the rear wheel centerline, excluding moldings.

W117 BODY WIDTH AT SgRP–FRONT. The dimension measured laterally between the widest points on the body at the SgRP-front, excluding door handles, applied moldings, or appliques.

W120 VEHICLE WIDTH–FRONT DOORS OPEN. The dimension measured between the widest point on the front doors in maximum hold-open position.

W121 VEHICLE WIDTH–REAR DOORS OPEN. The dimension measured between the widest point on the rear doors in maximum hold-open position. For vehicles with a rear door on only one side, this dimension is to the zero "Y" plane.

W122 TUMBLE–HOME. STRAIGHT SIDE GLASS. The angle measured from a vertical to the outside surface of the front door glass at the SgRP "X" plane.

CURVED SIDE GLASS. The angle measured from a vertical to a chord extending from the upper DLO to the lower DLO at the outside surface of the front door glass at the front SgRP "X" plane.

Length Dimensions

L101 WHEELBASE (WB). The dimension measured longitudinally between front and rear wheel centerlines. In case of dual rear axles, the dimension shall be to the midpoint of the centerlines of the rear wheels.

L103 VEHICLE LENGTH. The maximum dimension measured longitudinally between the foremost point and the rearmost point on the vehicle, including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.

L104 OVERHANG–FRONT. The dimension measured longitudinally from the centerline of the front wheels to the foremost point on the vehicle including bumper, bumper guards, tow hooks and/or rub strips, if standard equipment.

L105 OVERHANG–REAR. The dimension measured longitudinally from the centerline of the rear wheels; or in the case of dual rear axles, the dimension shall be the midpoint of the centerlines of the rear wheels, to the rearmost point on the vehicle including rear bumpers, bumper guards, tow hooks and rub strips, if standard equipment.

L123 UPPER STRUCTURE LENGTH. The dimension measured longitudinally from the cowl point to the deck point.

L125 COWL POINT "X" COORDINATE.

L126 FRONT END LENGTH. The dimension measured longitudinally from the cowl point to the foremost point on the vehicle at the zero "Y" plane excluding ornamentation or bumpers. In cases where bumpers and or grills are integrated with the profile, measurement is made at the foremost point of front end contour.

L127 REAR WHEEL CENTERLINE "X" COORDINATE or in the case of dual rear axles, the coordinate shall be the midpoint of the distance between the rear axle centerlines.

L129 REAR END LENGTH. The dimension measured longitudinally from the deck point to the rearmost visible point of the body sheet metal at the zero "Y" plane, excluding ornamentation or bumpers.

Height Dimensions

H101 VEHICLE HEIGHT. The dimension measured vertically from the highest point on the vehicle body to ground.

H111 ROCKER PANEL–REAR TO GROUND. The dimension measured vertically from the bottom of the rocker or side quarter panel at the front of the rear wheel opening, excluding flanges, to ground.

H112 ROCKER PANEL–FRONT TO GROUND. The dimension measured vertically from the foremost point on the bottom of the rocker panels, excluding flanges, to ground.

H114 COWL POINT TO GROUND. Measured at zero "Y" plane.

H121 BACKLIGHT SLOPE ANGLE. The angle between the vertical reference line and the surface of backlight at vehicle zero "Y" plane. For curve backlight, the angle is to chord of backlight arc from lower DLO to upper DLO.

H122 WINDSHIELD SLOPE ANGLE. The angle between the vertical reference line and a chord of the windshield arc running from the lower DLO to the upper DLO at the vehicle zero "Y" plane. In the case of wrap over glass, the angle to be measured will be formed by a chord 457 mm (18.0 in) long drawn from the lower DLO to the intersecting point on the windshield.

H127 HEADLAMP TO GROUND–CURB MASS (WT.). The dimension measured vertically from the centerline of the lowest headlamp lens to ground.

H128 TAILLAMP TO GROUND–CURB MASS (WT.). The dimension measured vertically from the centerline of the upper bulb to ground.

H133 BOTTOM OF DOOR CLOSED–FRONT TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum closed position, to ground.

H135 BOTTOM OF DOOR CLOSED–REAR TO GROUND. The dimension measured vertically from the bottom outside corner of the door on the lock pillar side, in maximum closed position, to ground.

H138 DECK POINT TO GROUND. Measured at zero "Y" plane.

H109 STATIC LOAD–TIRE RADIUS–REAR. Specified by the manufacturer in accordance with composite TIRE SECTION STANDARD.

Ground Clearance Dimensions

H102 FRONT BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the front bumper to ground, including bumper guards, if standard equipment.

H103 FRONT BUMPER TO GROUND–CURB MASS (WT.). Measured in the same manner as H102.

MVMA Specifications Form
Passenger Car
METRIC (U.S. Customary)

Interior Car And Body Dimensions – Key Sheet
Dimensions Definitions

H104 REAR BUMPER TO GROUND. The minimum dimension measured vertically from the lowest point on the rear bumper to ground, including bumper guards, if standard equipment.

H105 REAR BUMPER TO GROUND – CURB MASS (WT.). Measured in the same manner as H104.

H106 ANGLE OF APPROACH. The angle measured between a line tangent to the front tire static loaded radius arc and the initial point of structural interference forward of the front tire to ground. The limiting structural component shall be designated.

H107 ANGLE OF DEPARTURE. The angle measured between a line tangent to the rear tire static loaded radius arc and the initial point of structural interference rearward of the rear tire to ground. The limiting component shall be designated.

H147 RAMP BREAKOVER ANGLE. The angle measured between two lines tangent to the front and rear tire static loaded radius and intersecting at a point on the underside of the vehicle which defines the largest ramp over which the vehicle can roll.

H153 REAR AXLE DIFFERENTIAL TO GROUND. The minimum dimension measured from the rear axle differential to ground.

H156 MINIMUM RUNNING GROUND CLEARANCE. The minimum dimension measured from the sprung vehicle to ground. Specify location.

Glass Areas

S1 Windshield area.

S2 Side windows area. Includes the front door, rear door, vents, and rear quarter windows on both sides of the vehicle.

S3 Backlight areas.

S4 Total area. Total of all areas (S1 + S2 + S3).

Fiducial Mark Dimensions

Fiducial Mark – Number 1

L54 "X" coordinate.

W21 "Y" coordinate.

H81 "Z" coordinate.

H161 Height "Z" coordinate to ground at curb weight.

H163 Height "Z" coordinate to ground.

Fiducial Mark – Number 2

L55 "X" coordinate.

W22 "Y" coordinate.

W82 "Z" coordinate.

H162 Height "Z" coordinate to ground at curb weight.

H164 Height "Z" coordinate to ground.

Front Compartment Dimensions

L7 STEERING WHEEL TORSO CLEARANCE. The minimum dimension measured in the side view from the rearmost edge of the steering wheel, with front wheels in the straight ahead position, to the torso line.

L11 ACCELERATOR HEEL POINT TO STEERING WHEEL CENTER. The dimension measured horizontally from the AHP to the intersection of the steering column centerline and a plane tangent to the upper surface of the steering wheel rim.

L17 DESIGN H-POINT–FRONT TRAVEL. The dimension measured horizontally between the design H-point–front in the foremost and rearmost seat track positions. (See SAE J1100)

L23 NORMAL DRIVING AND RIDING SEAT TRACK LEVEL. The dimension measured horizontally between a point on the design H-point travel line from the SgRP to the displaced point on the design H-point travel line with the seat moved to the foremost seat position, but not to include seat track travel used for purposes other than normal driving and riding positions. (See SAE J1100)

L31 SgRP–FRONT. "X" COORDINATED.

L34 MAXIMUM EFFECTIVE LEG ROOM–ACCELERATOR. The dimension measured along a line from the ankle pivot center to the SgRP–front plus 254 mm (10.0 in) measured with right foot on the undepressed accelerator pedal. For vehicles with SgRP to heel (H30) greater than 18 in., the accelerator pedal may be depressed as specified by the manufacturer. If the accelerator is depressed, the manufacturer shall place foot flat on pedal and note the depression of the pedal.

L40 BACK ANGLE–FRONT. The angle measured between a vertical line through the SgRP–front and the torso line. If the seatback is adjustable, use the normal driving and riding position specified by the manufacturer.

L42 HIP ANGLE–FRONT. The angle measured between torso line and thigh centerline.

L44 KNEE ANGLE–FRONT. The angle measured between thigh centerline and lower leg centerline measured on the right leg.

L46 FOOT ANGLE–FRONT. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the bare foot flesh line measured on the right leg. Ref SAE J826.

L53 SgRP–FRONT TO HEEL. The dimension measured horizontally from the SgRP–front to the accelerator heel point.

W3 SHOULDER ROOM–FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP–front at height between the belt line and 254 mm (10.0 in.) above the SgRP–front, excluding the door assist strap and attaching parts.

W5 HIP ROOM–FRONT. The minimum dimension measured laterally between the trimmed surfaces on the "X" plane through the SgRP–front within 25 mm (1.0 in.) below and 76 mm (3.0 in.) above the SgRP–front and 76 mm (3.0 in.) fore and aft of the SgRP–front.

W9 STEERING WHEEL MAXIMUM OUTSIDE DIAMETER. Define if other than round.

H13 STEERING WHEEL TO CENTERLINE OF THIGH. The minimum dimension measured from the bottom of steering wheel, with front wheels in the straight position, to the thigh centerline.

H17 ACCELERATOR HEEL POINT TO THE STEERING WHEEL CENTER. The dimension measured vertically from the AHP–front to the intersection of the steering column centerline to a plane tangent to the upper surface of the steering wheel rim.

H18 STEERING WHEEL ANGLE. The angle measured from a vertical to the surface plane of the steering wheel.

H30 SgRP–FRONT TO HEEL. The dimension measured vertically from the SgRP–front to the accelerator heel point.

H37 HEADLINING TO ROOF PANEL–FRONT. The dimension measured from the intersection of the headlining and the extended effective head room line normal to the sheet metal.

H50 UPPER BODY OPENING TO GROUND–FRONT. The dimension measured vertically from the trimmed body opening to the ground on the SgRP–front "X" plane.

H61 EFFECTIVE HEAD ROOM–FRONT. The dimension measured along a line 8 deg. rear of vertical from the SgRP–front to the headlining plus 102 mm (4.0 in.).

H67 FLOOR COVERING THICKNESS–UNDEPRESSED–FRONT. The dimension measured vertically from the surface of the undepressed floor covering to the underbody sheet metal at the accelerator heel point.

PD1 PASSENGER DISTRIBUTION–FRONT.

Rear Compartment Dimensions

L3 COMPARTMENT ROOM–SECOND. The dimension measured horizontally from the back of front seat to the front of the second seatback at a height tangent to the top of the second seat cushion.

L-41 BACK ANGLE–SECOND. The angle measured between a vertical line through the SgRP–second and the torso line.

L43 HIP ANGLE–SECOND. The angle measured between torso line and thigh centerline.

L45 KNEE ANGLE–SECOND. The angle measured between thigh centerline and lower leg centerline.

L47 FOOT ANGLE–SECOND. The angle measured between the lower leg centerline and a line tangent to the ball and heel of the three-dimensional devices bare foot flesh line (Reference J826).

L48 KNEE CLEARANCE–SECOND. The minimum dimension measured from the knee pivot center to the back of the front seatback minus 51 mm (2.0 in.).

L50 SgRP COUPLE DISTANCE–SECOND. The dimension measured horizontally from the driver SgRP–front to the SgRP–second.

L51 MINIMUM EFFECTIVE LEG ROOM–SECOND. The dimension measured along a line from the ankle pivot center to the SgRP–second plus 254mm (10.0 in.).

W4 SHOULDER ROOM–SECOND. The minimum dimension measured laterally between door or quarter trimmed surfaces on the "X" plane through the SgRP–second at height between 254-406 mm (10.0-16.0 in.) above the SgRP–second, excluding the door assist straps and attaching parts.

W6 HIP ROOM–SECOND. Measured in the same manner as W5.

H31 SgRP–SECOND TO HEEL. The dimension measured vertically from the SgRP–second to the two dimensional device heel point on the depressed floor covering.

H38 HEADLINING TO ROOF PANEL–SECOND. The dimension measured from the intersection of the headlining and the extended effective head room line normally to the roof sheet metal.

H51 UPPER BODY OPENING TO GROUND–SECOND. The dimension measured vertically from the trimmed body opening to the ground on the "X" plane 330 mm (13.0 in.) forward of the SgRP–second.

H63 EFFECTIVE HEAD ROOM–SECOND. The dimension measured along a line 8 deg. rear of vertical from the SgRP to the headlining, plus 102 mm (4.0 in.).

H73 FLOOR COVERING–DEPRESSED–SECOND. The dimesnion measured vertically from the heel point to the underbody sheet metal.

PD2 PASSENGER DISTRIBUTION–SECOND.

Luggage Compartment Dimensions

V1 USABLE LUGGAGE CAPACITY–Total of volumes of individual pieces of standard luggage set plus H-boxes stowed in the luggage compartment in accordance with the procedure described in paragraph 8.2 of SAE-J1100a.

H195 LIFTOVER HEIGHT. The dimension measured vertically from the luggage compartment lower opening at the zero "Y" plane to ground.

Interior Volumes (EPA Classification)

The Interior Volume Index is listed for each body style except two seaters. The interior volume index estimates the space in a car. It is based on four measurements – head room, shoulder room, hip room, and leg room – for the front and rear seats, plus trunk capacity. The interior volume index is an estimate of the size of the passenger compartment.

The Trunk Cargo Index is an estimate of the size of the trunk cargo space. In station wagons and hatchbacks it is an estimate of the space behind the second seat.

Station Wagon – Third Seat Dimensions

L85 SgRP COUPLE DISTANCE–THIRD. The dimension measured horizontally from the SgRP–second to the SgRP–third.

L86 EFFECTIVE LEG ROOM–THIRD. The dimension measured along a line from the ankle pivot center to the SgRP–third plus 254 mm (10.0 in.).

L87 KNEE CLEARANCE–THIRD. The minimum dimension from the knee pivot center to the back of second seatback minus a constant of 51mm (2.0 in.). With rear-facing third seat, dimension is measured to closure.

L88 BACK ANGLE–THIRD. Measured in the same mannere as L41.

L89 HIP ANGLE–THIRD. Measured in the same manner as L43.

L90 KNEE ANGLE–THIRD. Measured in the same manner as L45.

L91 FOOT ANGLE–THIRD. Measured in the same manner as L47.

W85 SHOULDER ROOM–THIRD. Measured in the same manner as W4

W86 HIP ROOM–THIRD. Measured in the same manner as W5.

H86 EFFECTIVE HEAD ROOM–THIRD. The dimension, measured along a line 8 deg. from the SgRP–third to the headlining rear of vertical plus a constant of 102 mm (4.0 in.).

H87 SgRP–THIRD TO HEEL POINT.

PD3 PASSENGER DIRECTION–THIRD.

SD1 SEAT FACING DIRECTION–THIRD.

Station Wagon – Cargo Space Dimensions

L200 CARGO LENGTH–OPEN–FRONT. The minimum dimension measured longitudinally from the back of the seatback at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the open tailgate or cargo surface if the rear closure is a conventional door type tailgate at the zero "Y" plane.

L201 CARGO LENGTH–OPEN–SECOND. The dimension measured longitudinally from the back of the second seatback at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the open tailgate or cargo floor surface if the rear closure is a conventional door type tailgate, at the zero "Y" plane.

L202 CARGO LENGTH–CLOSED–FRONT. The minimum dimension measured horizontally from the back of the front seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.

L203 CARGO LENGTH–CLOSED–SECOND. The dimension measured horizontally from the back of the second seat at the height of the undepressed floor covering to the rearmost point on the undepressed floor covering on the closed tailgate or taildoor for station wagons, trucks and mpv's at the zero "Y" plane.

L204 CARGO LENGTH AT BELT–FRONT. The minimum dimension measured horizontally from the back of the front seatback at the seatback top to the foremost normal surface of the closed tailgate or inside surface of the cab backpanel at the height of the belt, on the zero "Y" plane.

L205 CARGO LENGTH AT BELT–SECOND. The minimum dimension measured horizontally from the back of the second seatback at the seatback top to he foremost normal surface of the closed tailgate at the height of the belt, on the zero "Y" plane.

W201 CARGO WIDTH–WHEELHOUSE. The minimum dimension measured laterally between the trimmed wheelhousings at floor level. For any vehicle not trimmed, measured to the sheet metal.

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Interior Car And Body Dimensions – Key Sheet
Dimensions Definitions

W203 REAR OPENING WIDTH AT FLOOR. The minimum dimension measured laterally between the limiting interferences of the rear opening at floor level.

W204 REAR OPENING WIDTH AT BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening at belt height or top of pick up box.

W205 REAR OPENING WIDTH ABOVE BELT. The minimum dimension measured laterally between the limiting interferences of the rear opening above the belt height.

H197 FRONT SEATBACK TO LOAD FLOOR HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undepressed floor covering.

H201 CARGO HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the headlining at the rear wheel "X" coordinate on the zero "Y" plane.

H202 REAR OPENING HEIGHT. The dimension measured vertically from the top of the undepressed floor covering to the upper trimmed opening on the zero "Y" plane with rear door fully open.

H250 TAILGATE TO GROUND CURB MASS (WT.). The dimension measured vertically from the top of the undepressed floor covering on the lowered tailgate to ground on the zero "Y" plane.

V2 STATION WAGON
Measured in inches:

$$\frac{W4 \times H201 \times L204}{1728} = ft^3$$

Measured in mm:

$$\frac{W4 \times H201 \times L204}{10^9} = m^3 \text{ (cubic meter)}$$

V4 HIDDEN LUGGAGE CAPACITY–REAR OF FRONT SEAT. The total volumes of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the front seat.

V5 TRUCKS AND MPV'S WITH OPEN AREA.
Measured in inches:

$$\frac{L506 \times W500 \times H503}{1728} = ft^3$$

Measured in mm:

$$\frac{L506 \times W500 \times H503}{10^9} = m^3 \text{ (cubic meter)}$$

V6 TRUCKS AND MPV'S WITH CLOSED AREA.
Measured in inches:

$$\frac{L204 \times W500 \times H505}{1728} = ft^3$$

Measured in mm:

$$\frac{L204 \times W500 \times H505}{10^9} = m^3 \text{ (cubic meter)}$$

V8 HIDDEN LUGGAGE CAPACITY–REAR OF SECOND SEAT. The total volume of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the second seat.

V10 STATION WAGON CARGO VOLUME INDEX.
Measured in inches:

$$\frac{H201 \times L205 \times \frac{W4 + W201}{2}}{1728} = ft^3$$

Measured in mm:

$$\frac{H201 \times L205 \times \frac{W4 + W201}{2}}{10^9} = m^3 \text{ (cubic meter)}$$

Hatchback – Cargo Space Dimensions

All hatchback cargo dimensions are to be taken with the front seat in full down and rear position, and the rear seat folded down. The hatchback door is in the closed position. (For electrically adjusted seats, see the manufacturer's specifications for Design "H" Point).

L208 CARGO LENGTH AT FRONT SEATBACK HEIGHT. The minimum horizontal dimension from the "X" plane tangent to the rearmost surface of the driver's seatback to the inside limiting interference of the hatchback door on the vehicle zero "Y" plane.

L209 CARGO LENGTH AT FLOOR–FRONT–HATCHBACK. The minimum horizontal dimension measured at floor level from the rear of the front seatback to the normal limiting interference of the hatchback door on the vehicle zero "Y" plane.

L210 CARGO LENGTH AT SECOND SEATBACK HEIGHT–HATCHBACK. The minimum dimension measured from the "X" plane tangent to the rearmost surface of second seatback or the load floor which is stowed at least one half of the H198 dimension height above the rear load floor, to the rearmost inside limiting interference on the zero "Y" plane.

L211 CARGO LENGTH AT FLOOR–SECOND HATCHBACK. The minimum horizontal dimension measured at floor level from the rear of the second seatback or load floor panel to the normal limiting interference of the hatchback door on the vehicle zero "Y" plane.

H197 FRONT SEATBACK TO LOAD HEIGHT. The dimension measured vertically from the horizontal tangent to the top of the seatback to the undepressed floor covering.

H198 SECOND SEATBACK TO LOAD FLOOR HEIGHT: The dimension measured vertically from the second seat back to the undepressed floor covering.

V3 HATCHBACK.
Measured in inches:

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{1728} = ft^3$$

Measured in mm:

$$\frac{\frac{L208 + L209}{2} \times W4 \times H197}{10^9} = m^3 \text{ (cubic meter)}$$

V4 HIDDEN LUGGAGE CAPACITY–REAR OF FRONT SEAT. The total volumes of individual pieces of one set of standard luggage stowed in any hidden cargo area below the load floor rear of the front seat.

V11 HATCHBACK CARGO VOLUME INDEX. Usable luggage (one (1) stand and luggage set) below floor:
Measured in inches:

$$\frac{\frac{L210 + L211}{2} \times W4 \times H198}{1728} = ft^3$$

Measured in mm:

$$\frac{\frac{L210 + L211}{2} \times W4 \times H198}{10^9} = m^3 \text{ (cubic meter)}$$

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