

MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC(U.S. Customary)

Passenger Car

1987

Manufacturer	Car Line	
AMERICAN MOTORS CORPORATION	ALLIANCE	
Mailing Address	Issued	Revised
14250 Plymouth Road Detroit, Michigan 48232	October 10, 1986	

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

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Motor Vehicle Manufacturers Association
of the United States, Inc.

MVMA Specifications Form Passenger Car

Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (e) _____

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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					E x h a u s t S/D	TRANSMISSION/ TRANSAXLE	AXLE RATIO (std. first)
	Displ. Liters (in ³)	Carb. (Barrels, FI, etc.)	Compr. Ratio	SAE Net at RPM				
				Power kW (bhp)	Torque N·m (lb. ft.)			
	STANDARD		ENGINES					
ALLIANCE Base L * DL *	1.397 (85.2)	FI	9.0			S	Manual 4-speed	3.29:1 (STD)
							Manual 5-speed	3.56:1 (Opt)
							Automatic 3-speed	3.56:1 (Opt)
ALLIANCE CONVERTIBLE L * DL *	1.721 (105.0)	FI	9.5	57, (77) @ 5000 RPM	130 (96) @ 3000 RPM	S	Manual 5-speed	3.29:1
ALLIANCE GS *							Manual 5-speed	3.56:1 (STD on GS, Convertible)
ALLIANCE GTA *	1.965 (120)	FI	9.5	70 (95) @ 5250 RPM	84 (114) @ 2750 RPM	S	Manual 5-Speed	4.07:1
	OPTIONAL ENGINE							
ALLIANCE L * DL *	1.721 (105.0)	FI	9.5	57 (77) @ 5000 RPM	130 (96) @ 3000 RPM	S	Manual 5-speed	3.29:1
							Automatic 3-speed	3.56:1 (Opt)
* 5-speed	manual	trans	axle	STD	on		these models	

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Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (•) _____

Engine Description/Carb.
Engine Code

4-CYL 1.4L (85 C.I.D.)
SGL. POINT FUEL INJECTION

4-CYL 1.7L (105 C.I.D.)
SGL. POINT FUEL INJECTION

ENGINE - GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)	INLINE REAR TILTED 12° TRANSVERSE	
Manufacturer		
No. of cylinders	4	4
Bore	76mm (2.99 in)	81mm (3.19 in)
Stroke	77mm (3.03 in)	83.5mm (3.29 in)
Bore spacing (C/L to C/L)	85mm (3.35 in)	89mm (3.50 in)
Cylinder block material & mass kg (lbs.) (machined)	Cast Iron w/Replaceable Wet Sleeves Cast Iron	
Cylinder block deck height	204mm (8.03 in)	221mm (8.70 in)
Cylinder block length		
Deck clearance (minimum) (above or below block)	0.3mm (0.012 in) (Above Block)	1.88mm (0.074 in) (Below Block)
Cylinder head material & mass kg (lbs.)	Cast Aluminum Alloy (AS 5U3 Y30) Aluminum (AS 5U3 Y30)	
Cylinder head volume (cm³)	39.05 cm³	
Cylinder liner material		
Head gasket thickness (compressed)	1.2mm (0.047 in)	1.22mm (0.048 in)
Minimum combustion chamber total volume (cm³)	37.2 cm³	44.3 cm³
Cyl. no. system (front to rear)*	L. Bank	Inline 4-3-2-1
	R. Bank	NA
Firing order	1-3-4-2	1-3-4-2
Intake manifold material & mass [kg (lbs.)]**	Alum. (AS 5U3 Y-20)	Alum. SAE 326-1.83 Kg.
Exhaust manifold material & mass [kg (lbs.)]**	Cast Iron 50	S. STL-409-3.47 Kg.
Recommended fuel (leaded, unleaded, diesel)	Unleaded	Unleaded
Fuel antiknock index (R + M) 2	87 (Min)	87 (Min)
Total dressed engine mass (wt) dry***	124 kg (273 lb)	125 kg (276 lb)

Engine - Pistons

Material & mass, g (weight, oz.) - piston only	Alum. (AS12 UNG Y35) 299.4 g (10.6 oz)	Alum (AS12 UN) 354.4 g (12.5 oz)
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Engine - Camshaft

Location	CYLINDER BLOCK	CYLINDER HEAD
Material & mass kg (weight, lbs.)	Cast Iron 1.637kg (3.61 lb)	Cast Iron 2.067kg (4.56 lb)
Drive type	Chain/belt	12.7mm (0.50 in) Chain
	Width/pitch	5.72mm/9.52mm
		Cogged Belt 19mm/9.52mm

* 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:

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Engine Description/Carb.
Engine Code

4 Cyl 2.0L (120 CID)
Single Point Fuel Injection

ENGINE - GENERAL

Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-camber, etc.)	Inline Rear Tilted 120° Transverse	
Manufacturer		
No. of cylinders	4	
Bore	82mm (3.23)	
Stroke	93mm (3.66)	
Bore spacing (C/L to C/L)	89mm (3.50)	
Cylinder block material & mass kg (lbs.) (machined)	Cast Iron	
Cylinder block deck height	232mm (9.13)	
Cylinder block length		
Deck clearance (minimum) (above or below block)		
Cylinder head material & mass kg (lbs.)	Aluminum AS 5U3Y30	
Cylinder head volume (cm ³)	---	
Cylinder liner material	---	
Head gasket thickness (compressed)	1.22mm (0.048 in)	
Minimum combustion chamber total volume (cm ³)	57.886 cm ³	
Cyl. no. system (front to rear)*	L. Bank	INLINE 4-3-2-1
	R. Bank	N.A.
Firing order	1-3-4-2	
Intake manifold material & mass [kg (lbs.)]**	Alum. SAE 326-1.83KG	
Exhaust manifold material & mass [kg (lbs.)]**	S.STL - 409 - 3.47 KG	
Recommended fuel (leaded, unleaded, diesel)	UNLEADED	
Fuel antiknock index (R + M) 2	87 MIN	
Total dressed engine mass (wt) dry***	278#	

Engine - Pistons

Material & mass, g (weight, oz.) - piston only	Alum. (AS12 UN) 377g. (13.3 oz)
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Engine - Camshaft

Location	Cylinder Head	
Material & mass kg (weight, lbs.)	Cast Iron 2.067 KG - (4.56 LB)	
Drive type	Chain / belt	Cog Belt
	Width / pitch	W = 19mm P = 9.52mm

* 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:

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Engine Description/Carb.
Engine Code

4 CYL 1.4L (85 C.I.D.)
SGL. POINT FUEL INJECTION

4 CYL 1.7L (105 C.I.D.)
SGL. POINT FUEL INJECTION

Engine - Valve System

Hydraulic lifters (std., opt., NA)	SOLID	N/A
Valves	Number intake / exhaust	4/4
	Head O.D. intake / exhaust	34.2/28.8 (mm) 38.1/32.5 (mm)

Engine - Connecting Rods

Material & mass (kg., (weight, lbs.))*	Forged Steel 0.57 kg (1.25 lb) Forged Steel 0.64 kg (1.4 lb)
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Engine - Crankshaft

Material & mass (kg., (weight, lbs.))*	Material* 10.8 kg (23.9 lb)	Material* 11.8 kg (26 lb)
End thrust taken by bearing (no.)	2	2
Number of main bearings	5	5
Seal (material, one, two piece design, etc.)	Front Rear	Silicon 1 piece Silicon 1 piece

Engine - Lubrication System

Normal oil pressure (kPa (psi) at engine rpm)	100 kPa (14.5 psi) @ 1000 RPM	200 kPa (29 psi) @ 1000 RPM
Type oil intake (floating, stationary)	Stationary	Stationary
Oil filter system (full flow, part, other)	Full Flow	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	3.8L (4.0 qt.)	4.2L (4.5 qt.)

Engine - Diesel Information

Diesel engine manufacturer	
Glow plug, current drain at 0°F	
Injector nozzle	Type Opening pressure (kPa (psi))
Pre-chamber design	
Fuel injection pump	Manufacturer Type
Fuel injection 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	
Super charger - manufacturer	
Charge cooler	

*Finished State

* Nodular Cast Iron

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Engine Description/Carb.
Engine Code

4 CYL. 2.0L (120 C.I.D.)
SGL. POINT FUEL INJECTION

Engine - Valve System

Hydraulic lifters (std., opt., NA)	N.A.
Valves	Number intake / exhaust 4/4
	Head O.D. intake / exhaust 38.1/32.5 mm

Engine - Connecting Rods

Material & mass (kg., (weight, lbs.))*	Forged Steel .626 KG
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Engine - Crankshaft

Material & mass (kg., (weight, lbs.))*	Nodular Cast Iron 14.638 KG
End thrust taken by bearing (no.)	2
Number of main bearings	5
Seal (material, one, two piece design, etc.)	Front Silicon 1 PC
	Rear Silicon 1 PC

Engine - Lubrication System

Normal oil pressure (kPa (psi) at engine rpm)	200 KPA (29 PSI) at 1000 RPM
Type oil intake (floating, stationary)	Stationary
Oil filter system (full flow, part, other)	Full Flow
Capacity of c/case, less filter-refill-L (qt.)	4.2L (4.5 QT)

Engine - Diesel Information

Diesel engine manufacturer	
Glow plug, current drain at 0°F	
Injector nozzle	Type Opening pressure (kPa (psi))
Pre-chamber design	
Fuel injection pump	Manufacturer Type
Fuel injection 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	
Super charger - manufacturer	
Charge cooler	

*Finished State

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Engine Description/Carb.
Engine Code

4-CYL 1.4L (85 C.I.D.)
SGL. POINT FUEL INJECTION

4-CYL 1.7L (105 C.I.D.)
SGL. POINT FUEL INJECTION

Engine - Fuel System (See supplemental page for details of Fuel Injection, Supercharger, Turbocharger, etc. if used)

Induction type: carburetor, fuel injection system, etc.		Fuel Injection - Single Point Bendix - 49 States & California	
Manufacturer		Bendix TBI	
Carburetor	Choke (type)	None	
	Idle spd. -rpm (spec. neutral or drive and propane if used)	Manual	1.4L - 850 RPM Not adjustable 1.7L - 850 RPM
		Automatic	1.4L - 850 RPM (D) Not adjustable 1.7L - 850 RPM (D)
Idle A/F mix.		14.6:1	
Fuel injection	Point of injection (no.)	One	
	Constant, pulse, flow	Pulse	
	Control (electronic, mech.)	Electronic	
	System pressure [kPa (psi)]	1.4L - 100 kPa (14.5 psi)	1.7L - 120 kPa (17.4 psi)
Intake manifold heat control (exhaust or water thermostatic or fixed)			
Air cleaner type	Standard	Dry Paper Element	
	Optional		
Fuel pump	Type (elec. or mech.)	Electrical	
	Location (eng., tank)	In Tank	
	Pressure range [kPa (psi)]	250.0 kPa (36 psi)	

Fuel Tank

Capacity (refill L (gallons))		47L (12.5 U.S. gal)	
Location (describe)		Under Rear Floor Pan	
Attachment		Bolts	
Material & Mass [kg (weight lbs)]		Ni-Terne Plate Steel 7.14 (15.7 lbs)	
Filler pipe	Location & material	Right Rear Quarter - Lead Dip Steel	
	Connection to tank	Rubber	
Fuel line (material)		Steel Tube	
Fuel hose (material)		Elastomer	
Return line (material)		Steel Tube	
Vapor line (material)		Steel Tube	
Extended range tank	Opt., n.a.	N.A.	
	Capacity [L (gallons)]		
	Location & material		
	Attachment		
Auxiliary tank	Opt., n.a.	N.A.	
	Capacity [L (gallons)]		
	Location & material		
	Attachment		
	Selector switch or valve		
Separate fill			

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Engine Description/Carb.
Engine Code

4 Cyl 2.0L (120 C.I.D.)

Engine - Fuel System (See supplemental page for details of Fuel Injection, Supercharger, Turbocharger, etc. if used)

Induction type: carburetor, fuel injection system, etc.		Fuel Injection Single Point
Manufacturer		RENEX - WEBER
Carburetor	Choke (type)	-
	Idle spd.-rpm (spec. neutral or drive and propane if used)	Manual
		Automatic
		NOT ADJUSTABLE - 900 RPM
		N/A
Idle A/F mix.		14.6:1
Fuel injection	Point of injection (no.)	One
	Constant, pulse, flow	Pulse
	Control (electronic, mech.)	ELECTRONIC
	System pressure [kPa (psi)]	120 KPA (17.4 PSI)
Intake manifold heat control (exhaust or water thermostatic or fixed)		
Air cleaner type	Standard	DRY PAPER ELEMENT
	Optional	
Fuel pump	Type (elec. or mech.)	ELECTRICAL
	Location (eng., tank)	IN TANK
	Pressure range [kPa (psi)]	250.0 KPA (36 PSI)

Fuel Tank

Capacity [refill L (gallons)]		47L (12.5 U.S. GAL)
Location (describe)		UNDER REAR FLOOR PAN
Attachment		BOLTS
Material & Mass [kg (weight lbs)]		Ni-Terne Plate ST 7.14/15.7
Filler pipe	Location & material	RIGHT REAR QUARTER - LEAD DIP STEEL
	Connection to tank	RUBBER
Fuel line (material)		STEEL TUBE
Fuel hose (material)		ELASTOMER
Return line (material)		STEEL TUBE
Vapor line (material)		STEEL TUBE
Extended range tank	Opt., n.a.	N.A.
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
Auxiliary tank	Opt., n.a.	N.A.
	Capacity [L (gallons)]	
	Location & material	
	Attachment	
	Selector switch or valve	
	Separate fill	

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Engine Description/Carb.
Engine Code

4-CYL 1.4L (85 C.I.D.) 4-CYL 1.7L (105 C.I.D.)
SGL. POINT FUEL INJECTION SGL. POINT FUEL INJECTION

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		EFI - CAT - EGR - EGS
	Air Injection	Pump or pulse	Not used
		Driven by	
		Air distribution (head, manifold, etc.)	
		Point of entry	
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Controlled
		Exhaust source	Manifold
		Point of exhaust injection (spacer, carburetor, manifold, other)	Manifold
	Catalytic Converter	Type	TWC
		Number of	ONE
		Location(s)	Under Floor
		Volume [L (in ³)]	1.507L (93 in ³) 1.820L (110 in ³)
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Fixed Orifice, Vent to Intake
	Energy source (manifold vacuum, carburetor, other)		Manifold Vacuum
	Discharges (to intake manifold, other)		Intake Manifold/Throttle Body
	Air inlet (breather cap, other)		Not Used
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister
		Carburetor	N.A.
	Vapor storage provision		Carbon Canister
Electronic system	Closed loop (yes/no)		Yes
	Open loop (yes/no)		No

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		Single
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs)]		One, Reverse Flow
Resonator no. & type		None
Exhaust pipe	Branch o.d., wall thickness	
	Main o.d., wall thickness	50.8mm (2.00 in) o.d., 1.5mm (.06 in) w/t
	Material & Mass [kg (weight lbs)]	Stainless Steel
Inter-mediate pipe	o.d. & wall thickness	44.45mm (1.75 in) o.d., 1.83mm (.072 in) w/t
	Material & Mass [kg (weight lbs)]	Aluminized Steel
Tail pipe	o.d. & wall thickness	44.45mm (1.75 in) o.d., 1.83mm (.072 in) w/t - Std/*
	Material & Mass [kg (weight lbs)]	Aluminized Steel - Std/*

*With optional Sport Muffler: o.d. & wall thickness: 50.8mm (2.00 in) o.d., 1.83mm (.072 in) w/t
(Models 8793 & 8799 Only)

Material: Chrome Plate low Carbon Steel

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Engine Description/Carb.
Engine Code

4CYL 2.0L (120 C.I.D.)
SGL. POINT FUEL INJECTION

Vehicle Emission Control

Exhaust Emission Control	Type (air injection, engine modifications, other)		EFI-CAT-EGR-EGS
	Air Injection	Pump or pulse	Not Used
		Driven by	
		Air distribution (head, manifold, etc.)	
		Point of entry	
	Exhaust Gas Recirculation	Type (controlled flow, open orifice, other)	Controlled
		Exhaust source	Manifold
		Point of exhaust injection (spacer, carburetor, manifold, other)	Manifold
	Catalytic Converter	Type	TWC
		Number of	ONE
		Location(s)	UNDER FLOOR
		Volume [L (in ³)]	1.820 L (110 in ³)
Substrate type		MONOLITHIC	
Crankcase Emission Control	Type (ventilates to atmosphere, induction system, other)		Fixed Orifice, Vent to Intake
	Energy source (manifold vacuum, carburetor, other)		Manifold Vacuum
	Discharges (to intake manifold, other)		Intake Manifold, Throttle Body
	Air inlet (breather cap, other)		Not Used
Evaporative Emission Control	Vapor vented to (crankcase, canister, other)	Fuel tank	Canister
		Carburetor	NA
	Vapor storage provision		Carbon Canister
Electronic system	Closed loop (yes/no)		Yes
	Open loop (yes/no)		No

Engine - Exhaust System

Type (single, single with cross-over, dual, other)		SINGLE
Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass [kg (weight lbs)]		ONE. REVERSE FLOW
Resonator no. & type		ONE. REVERSE FLOW
Exhaust pipe	Branch o.d., wall thickness	
	Main o.d., wall thickness	50.8mm (2.0 in) O.D. 1.5mm (.06 in) W.T.
	Material & Mass [kg (weight lbs)]	STAINLESS STEEL
Inter- mediate pipe	o.d. & wall thickness	50.8mm (2.0 in) O.D. 1.83mm (.072 in) W.T.
	Material & Mass [kg (weight lbs)]	ALUMINIZED STEEL
Tail pipe	o.d. & wall thickness	50.8mm (2.0 in) O.D. 1.96mm (.077 in) W.T.
	Material & Mass [kg (weight lbs)]	ALUMINIZED STEEL

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ALLIANCE
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Engine Description/Carb.
Engine Code

4 CYL 1.4L (85 C.I.D.)
SGL. POINT FUEL INJECTION

4 CYL 1.7L (105 C.I.D.)
SGL POINT FUEL INJECTION

Transmissions/Transaxle

Manual 3-speed (std., opt., n.a.) (mfr.)	N.A.	N.A.
Manual 4-speed (std., opt., n.a.) (mfr.)	Std. - Transaxle	N.A.
Manual 5-speed (std., opt., n.a.) (mfr.)	Opt. - Transaxle	Std. - Transaxle
Manual overdrive (std., opt., n.a.) (mfr.)	N.A.	N.A.
Automatic (std., opt., n.a.) (mfr.)	Opt. - Transaxle	Opt. - Transaxle
Automatic overdrive (std., opt., n.a.) (mfr.)	N.A.	N.A.

Manual Transmission/Transaxle

Number of forward speeds		Four	Five
Transmission ratios	In first	3.73:1	3.73:1
	In second	2.05:1	2.05:1
	In third	1.32:1	1.32:1
	In fourth	0.90:1	0.97:1
	In fifth		0.79:1
	In overdrive		
	In reverse	3.55:1	3.55:1
Synchronous meshing (specify gears)		All forward gears	
Shift lever location		Floor Mount	Floor Mount
Lubricant	Capacity [L (pt.)]	2.8L (5.9 pt)	2.9L (6.1 pt)
	Type recommended	API GL-5	API GL-5
	SAE viscosity number	Summer	75W - 90
		Winter	75W - 90
		Extreme cold	75W - 90

Clutch (Manual Transmission)

Make, type, engagement (describe) - (hydraulic, cable, rod)		VALEO Dry Disc, Self Adjusting, Cable	VALEO Dry Disc, Self Adjusting, Cable
Assist (yes, no / percent)			
Type pressure plate springs		Diaphragm Spring	Diaphragm Spring
Total spring load [N (lb.)]		3350 (753)	4100 (921)
No. of clutch driven discs		One	One
Clutch facing	Material	F.201 Non Asbestos	F.201 Non Asbestos
	Manufacturer	Valeo	Valeo
	Part number		
	Rivets/plate		
	Rivet size		
	Outside & inside dia.	181.5 (7.15) & 127 (5.00)	200 (7.87) & 137 (5.39)
	Total eff. area [cm ² (in. ²)]	264.66 (41.03)	333.18 (51.65)
	Thickness	7.7mm (0.303 in)	7.7mm (0.303 in)
	Engagement cushion method	Damper Hub	
Release bearing	Type & method of lubrication	Sealed Ball Bearing	
Torsional damping	Method: springs, friction material	Coil Spring	

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Engine Description/Carb.
Engine Code

4 CYL 2.0L (120 C.I.D.)
SGL Point Fuel Injection

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.)	Std. - Transaxle
Manual overdrive (std., opt., n.a.) (mfr.)	N.A.
Automatic (std., opt., n.a.) (mfr.)	N.A.
Automatic overdrive (std., opt., n.a.) (mfr.)	N.A.

Manual Transmission/Transaxle

Number of forward speeds			Five
Transmission ratios	In first		3.09:1
	In second		1.84:1
	In third		1.32:1
	In fourth		0.97:1
	In fifth		0.76:1
	In overdrive		
	In reverse		3.55:1
Synchronous meshing (specify gears)			All Forward Gears
Shift lever location			Floor Mount
Lubricant	Capacity [L (pt.)]		2.9L (6.1 pt)
	Type recommended		API GL-5
	SAE viscosity number	Summer	75W-90
		Winter	75W-90
		Extreme cold	75W-90
			75W-90

Clutch (Manual Transmission)

Make, type, engagement (describe) - (hydraulic, cable, rod)		VALEO Dry Disk, 200 CP 425 SELF ADJUSTING CABLE
Assist (yes, no / percent)		
Type pressure plate springs		DIAPHRAGM SPRING
Total spring load [N (lb.)]		4250 (955)
No. of clutch driven discs		ONE
Clutch facing	Material	E.202 Non Asbestos
	Manufacturer	VALEO
	Part number	
	Rivets/plate	
	Rivet size	
	Outside & inside dia.	200 (7.87) & 137 (5.39)
	Total eff. area [cm ² (in. ²)]	333.18 (51.65)
	Thickness	7.7mm (.303 in)
	Engagement cushion method	DAMPER HUB
Release bearing	Type & method of lubrication	SEALED BALL BRG.
Torsional damping	Method: springs, friction material	COIL SPRING

MVMA Specifications Form Passenger Car

Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (•) _____

ETRIC (U.S. Customary)

Engine Description/Carb.
Engine Code

4 CYL 1.4L (85 C.I.D.)
SGL. POINT FUEL INJECTION

4 CYL 1.7L (105 C.I.D.)
SGL POINT FUEL INJECTION

Automatic Transmission/Transaxle

Trade name		RENAULT	
Type and special features (describe)		MBI	MB3
Selector	Location	Floor Mounted	
	Ltr./No. designation	P-R-N-D-2-1	
Gear ratios	1st	2.5	2.5
	2nd	1.5	1.5
	3rd	1.00	1
	4th		
	Reverse	2	2
Max. upshift speed - drive range (km/h (mph))		108 km/h (67 mph)	116 (72)
Max. kickdown speed - drive range (km/h (mph))		94 km/h (58 mph)	104 (65)
Min. overdrive speed (km/h (mph))		N.A.	
Torque converter	Number of elements	Three	
	Max. ratio at stall	2.40	2.40
	Type of cooling (air, liquid)	Air & Oil	Air & Oil
	Nominal diameter	227mm	227mm
Lubricant	Capacity (refill L (pt.))	4.3L (9.09 pt. U.S. liq)	
	Type Recommended	Dexron II D - Mobil ATF 220	
Oil cooler (std., opt., NA, internal, external, air, liquid)		Standard--Oil to Coolant Transmission Mounted Cooler	

Axle or Front Wheel Drive Unit

Type (front, rear)		Front Wheel Drive	
Description			
Limited slip differential (type)			
Drive pinion offset			
Drive pinion (type)			
No. of differential pinions			
Pinion / differential adjustment (shim, other)			
Pinion / differential bearing adjustment (shim, other)			
Driving wheel bearing (type)			
Lubricant	Capacity [L (pt.)]		
	Type recommended		
	SAE viscosity number	Summer	
		Winter	
		Extreme cold	

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

Axle ratio (or overall top gear ratio)		3.29	3.56	3.27	3.29	3.56	2.95
No. of teeth	Pinion	17	16	16	17	16	16
	Ring gear or gear	56	57	57	56	57	57
ng gear o.d.							
Transaxle	Transfer gear ratio	0.92-25-23					
	Final drive ratio	2.96	2.83	3.56	2.62	2.83	3.56
		MAN	MAN	AUTO	MAN	MAN	AUTO
		4-Spd.	5-Spd.	3-Spd.	5-Spd	5-Spd	3-Spd
		1.4L	1.4L	1.4L	1.7L	1.7L	1.7L

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (•) _____

Engine Description/Carb.
Engine Code

4 Cyl 2.0L (120 C.I.D.)
SGL. POINT FUEL INJECTION

Automatic Transmission/Transaxle

Trade name		
Type and special features (describe)		
Selector	Location	
	Ltr./No. designation	
Gear ratios	1st	
	2nd	
	3rd	
	4th	
	Reverse	
Max. upshift speed - drive range [km/h (mph)]		
Max. kickdown speed - drive range [km/h (mph)]		
Min. overdrive speed [km/h (mph)]		
Torque converter	Number of elements	
	Max. ratio at stall	
	Type of cooling (air, liquid)	
	Nominal diameter	
Lubricant	Capacity [refill L (pt.)]	
	Type Recommended	
Oil cooler (std., opt., NA, internal, external, air, liquid)		

Axle or Front Wheel Drive Unit

Type (front, rear)		Front Wheel Drive	
Description			
Limited slip differential (type)			
Drive pinion offset			
Drive pinion (type)			
No. of differential pinions			
Pinion / differential adjustment (shim, other)			
Pinion / differential bearing adjustment (shim, other)			
Driving wheel bearing (type)			
Lubricant	Capacity [L (pt.)]		
	Type recommended		
	SAE viscosity number	Summer	
		Winter	
		Extreme cold	

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

Axle ratio (or overall top gear ratio)		4.07
No. of teeth	Pinion	15
	Ring gear or gear	61
Ring gear o.d.		
Transaxle	Transfer gear ratio	
	Final drive ratio	3.08

MAN
5-spd.
2.0L

MVMA Specifications Form Passenger Car

(AETRIC (U.S. Customary))

Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (•) _____

Engine Description/Carb.
Engine Code

4 CYL 1.4L (85 C.I.D.)
4 CYL 2.0L (120 C.I.D.)

4 CYL 1.7L (105 C.I.D.)
SGL. POINT FUEL INJECTION

Axle Shafts – Front Wheel Drive

Manufacturer and number used		Two RENAULT	
Type (straight, solid bar, tubular, etc.)	Left	Two (2) Constant Velocity Joints - Tubular Connection	
	Right	Two (2) Constant Velocity Joints - Tubular Connection w/Damper	
Outer diam. x length* x wall thickness	Manual transmission	Left	35 x 541 x 4mm
		Right	35 x 488 x 4mm
	Automatic transmission	Left	35 x 541 x 4mm
		Right	35 x 488 x 4mm
	Optional transmission	Left	
		Right	
Slip yoke	Type		
	Number of teeth		
	Spline o.d.		
Universal joints	Make and mfg. no.	Inner	G1 69 Tri Axis Renault
		Outer	GE 86 Renault
	Number used		Two (2) Half-Shafts/Vehicle
	Type, size, plunge	Inner	
		Outer	
	Attach (u-bolt, clamp, etc.)		
	Bearing	Type (plain, anti-friction)	
Lubrication (fitting, prepack)		Permanently Lubricated	
Drive taken through (torque tube, arms or springs)		Lower Control Arms	
Torque taken through (torque tube, arms or springs)		Lower Control Arms	

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

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (•) _____

Body Type And/Or
Engine Displacement

ALLIANCE

Suspension - General

Car leveling	Std./opt./n.a.	N.A.	
	Type (air, hyd., etc.)		
	Manual/auto. controlled		
Provision for brake dip control			
Provision for accel. squat control			
Provisions for car jacking		Body Pick-Up Slots on Rocker Panel	
Shock absorber (front & rear)	Type	Front: MacPherson Strut	
	Make	Rear: Twin Tube Hydraulic, Gas Charged	
	Piston diameter	Front: 32mm	Rear: 25mm
	Rod diameter	Front: 20mm	Rear: 12mm

Suspension - Front

Type and description		MacPherson Strut Type - Off Center Spring Negative Ground Offset	
Travel	Full jounce	115mm	
	Full rebound	71mm	
Spring	Type (coil, leaf, other) & material	Coil - Alloy Steel (Cr - Si)	
	Insulators (type & material)	Upper - Rubber	
	Size (coil design height & i.d., bar length x dia.)	I.D. - From 131.6 to 135.0mm Wire Dia: 11.4mm to 12.7mm 5.5 Coils or 6.5 Coils	
	Spring rate [N/mm (lb./in.)]	Std: 9.6 to 12.3 (55 to 70) - Opt: 15.8 to 16.7 (90 to 95)	
	Rate at wheel [N/mm (lb./in.)]	Std: 12 to 15 (68 to 86) - Opt: 20 to 21 (114 to 120)	
Stabilizer	Type (link, linkless, frameless)	Linkless to Lower Control Arm	
	Material & bar diameter	24mm - Alloy Steel	

Suspension - Rear

Type and description		Independent Sprung Wheels on Trailing Arms Unique Tubular Suspension Arms Pivoting on Bushings	
Travel	Full jounce	156mm	
	Full rebound	95mm	
Spring	Type (coil, leaf, other) & material	Torsion Bar - Alloy Steel	
	Size (length x width, coil design height & i.d., bar length & dia.)	Std: 18.5mm Dia - Length 645mm Opt: 19.5mm Dia - Length 645mm	
	Spring rate [N/mm (lb./in.)]	Std: 11 to 14 (63 to 80) - Opt: 14 to 23 (80 to 131)	
	Rate at wheel [N/mm (lb./in.)]	Std: 11 to 14 (63 to 80) - Opt: 14 to 23 (80 to 131)	
	Insulators (type & material)	RUBBER BUSHING STD: 100 DaN/mm OPT: 200 DaN/mm.	
Stabilizer	Type (link, linkless, frameless)	Linkless to Trailing Arm	
	Material & bar diameter	17mm - Alloy	
Track bar (type)		None	

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line ALLIANCE/GTA
Model Year 1987 Issued _____ Revised (•) _____

Body Type And/Or
Engine Displacement

ALLIANCE/GTA

Suspension - General

Car leveling	Std. opt. n.a.	N.A.	
	Type (air, hyd., etc.)		
	Manual auto. controlled		
Provision for brake dip control			
Provision for accel. squat control			
Provisions for car jacking		Body Pick-Up Slots on Rocker Panel	
Shock absorber (front & rear)	Type	Front:	MacPherson Strut
		Rear:	Twin Tube Hydraulic, Gas Charged
	Make	Monroe, Allinquant	
	Piston diameter	Front:	32mm
		Rear:	25mm
	Rod diameter	Front:	20mm
		Rear:	12mm

Suspension - Front

Type and description		MacPherson Strut Type - Off Center Spring Negative Ground Offset	
Travel	Full bounce	95mm	
	Full rebound	91mm	
Spring	Type (coil, leaf, other) & material	Coil - SAE 9254 Alloy Steel (Cr - Si) Cold Coiled	
	Insulators (type & material)	Upper - Rubber	
	Size (coil design height & i.d., bar length & dia.)	I.D. - 130.8mm Wire Dia: 13.5mm 5.5 Coils	
	Spring rate [N mm (lb. in.)]	Std: 23.6 (135)	
	Rate at wheel [N mm (lb. in.)]	Std: 29.5 (168)	
Stabilizer	Type (link, linkless, frameless)	Linkless to Lower Control Arm	
	Material & bar diameter	24mm - Alloy Steel	

Suspension - Rear

Type and description		Independent Sprung Wheels on Trailing Arms Unique Tubular Suspension Arms Pivoting on Bushings	
Travel	Full bounce	146mm	
	Full rebound	105mm	
Spring	Type (coil, leaf, other) & material	Torsion Bar - Alloy Steel	
	Size (length x width, coil design height & i.d., bar length & dia.)	19.5mm Dia - Length 645mm	
	Spring rate [N mm (lb. in.)]	14 to 23 (80 to 131)	
	Rate at wheel [N mm (lb. in.)]	14 to 23 (80 to 131)	
	Insulators (type & material)	RUBBER BUSHING 200 DaN/mm	
Stabilizer	Type (link, linkless, frameless)	Linkless to Trailing Arm	
	Material & bar diameter	Alloy Steel STD: 26mm Convertible: 23mm	
Track bar (type)		None	

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (•) _____

Body Type And/Or
Engine Displacement

ALLIANCE

Brakes - Service

Description			Hydraulic-Disc-Type Front Brakes, Drum-Type Rear Brakes with Vacuum Power Assist	
Manufacturer and 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)		Twin Combination Pressure Differential Warning and Proportioning Valve	
Power brake (std., opt., n.a.)			Standard	
Booster type (remote, integral, vac., hyd., etc.)			Vacuum Vacuum Tandem*	
Vacuum source (inline, pump, etc.)			N.A.	
Vacuum reservoir (volume in. ³)			N.A.	
Vacuum pump-type (elec. gear driven, belt driven, if other so state)			N.A.	
Anti-lock device type (std., opt., n.a.) (F/R)			N.A.	
Effective area [cm ² (in. ²)]*			407.0 cm ² (63.1 in ²)	
Gross lining area [cm ² (in. ²)]**(F/R)			148.4 cm ² (23.0 in ²)/291.6cm ² (45.2 in ²)	
Swept area [cm ² (in. ²)]*** (F/R)			1456.2 cm ² (225.8 in ²)/434.8 cm ² (67.4 in ²)	
Rotor	Outerworking diameter	F/R	Front	238.00 mm (9.4 in)
	Inner working diameter	F/R	Front	146.0 mm (5.75 in)
	Thickness	F/R	Front	12.0 mm (.47 in) 20mm Vented*
	Material & type (vented/solid)	F/R	Front	Cast Iron - Solid
Drum	Diameter & width	F/R	Rear	203.2 mm (8.0 in)
	Type and material	F/R	Rear	Composite - Cast Iron/Steel
Wheel cylinder bore			48.0 mm (1.89 in) - Front/20.6 mm (.81 in) - Rear	
Master cylinder	Bore/stroke	F/R	21.0 mm (.83 in) / 30.0 mm (1.18 in) 22.2/30.0*	
Pedal arc ratio			4.0:1	
Line pressure at 445 N(100 lb.) pedal load [kPa (psi)]			167.0 kPa (1150 psi) 275 (1900 psi)*	
Lining clearance			F/R None Set - Low Drag/.25mm (0.010 in)	
Brake lining	Front wheel	Bonded or riveted (rivets/seg.)		Riveted 5/seg.
		Rivet size		7.5mm x 7.56mm (.297 in x .298 in)
		Manufacturer		Assembly - Kelsey Hayes/Lining - Bendix
		Lining code*****		BX - JT - FF
		Material		7503-M VALEO 112 BONDED*
		****	Primary or out-board	110 x 38.9 x 11.2 mm (4.3 x 1.5 x .44 in)
		Size	Secondary or in-board	110 x 38.9 x 11.2 mm (4.3 x 1.5 x .44 in)
	Rear wheel	Shoe thickness (no lining)		4.65 mm (.18 in)
		Bonded or riveted (rivets/seg.)		Riveted 10/Seg
		Manufacturer		Bendix
		Lining Code*****		M0 - FF
		Material		3152F
		****	Primary or out-board	214.0 x 34.0 x 4.16mm (8.43 x 1.34 x .16 in)
		Size	Secondary or in-board	214.0 x 34.0 x 4.16 mm (8.43 x 1.34 x .16 in)
Shoe thickness (no lining)		1.89 mm (.07 in)		

*Excludes rivet holes, grooves, chamfers, etc.

**Includes rivet holes, grooves, chamfers, etc.

***Total swept area for four 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.

*GTA

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

Car Line ALLIANCE
 Model Year 1987 Issued 10/10/86 Revised (•) _____

Body Type And/Or
 Engine Displacement

ALLIANCE

Tires And Wheels (Standard)

Tires	Size (load range, ply)		P155/80R13 - Load Range "S" 2-Ply Tread
	Type (bias, radial, etc.)		Radial Steel Belt
	Inflation pressure (cold) for recommended max. vehicle load	Front (kPa (psi))	207 kPa (30 psi)
		Rear (kPa (psi))	207 kPa (30 psi)
	Rev. mile—at 70 km/h (45 mph)		
Wheels	Type & material		Semi-Styled Stamped Steel Wheel
	Rim (size & flange type)		13 in x 5.00 in "SJB" Flat Hump
	Wheel offset		41 mm
	Attachment	Type (bolt or stud)	Studs and Nuts
		Circle diameter	100 mm
Spare	Number & size		4 - M12 - 1.5
	Tire and wheel (same, if other describe)		Polyspare P155/80D13
	Storage position & location (describe)		Trunk - wheel Well in Rear Floor Pan

Tires And Wheels (Optional)

Size (load range, ply)	P175/70R13 - Load Range "S" 2-Ply Tread
Type (bias, radial, etc.)	Radial Steel Belt
Wheel (type & material)	Semi-Styled Stamped Steel Wheel
Rim (size, flange type and offset)	13 in x 5.00 in "SJB" Flat Hump
Size (load range, ply)	P185/60R14 - Load Range "S"
Type (bias, radial, etc.)	Radial Steel Belt
Wheel (type & material)	Styled Cast Aluminum Alloy
Rim (size, flange type and offset)	14 in x 5.50 in "JJ" - 36 mm 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)	

Brakes - Parking

Type of control		Hand Operated Lever
Location of control		On Floor Between Seats
Operates on		Rear Wheel
If separate from service Brakes	Type (internal or external)	NA
	Drum diameter	NA
	Lining size (length x width x thickness)	NA

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line ALLIANCE/GTA
Model Year 1987 Issued 10/10/86 Revised (•) _____

Body Type And/Or
Engine Displacement

GTA

Tires And Wheels (Standard)

Tires	Size (load range, ply)		P195/50VR15 LOADRANGE "S" 2 PLY TREAD	
	Type (bias, radial, etc.)		RADIAL STEEL BELT	
	Inflation pressure (cold) for recommended max. vehicle load	Front (kPa (psi))	207 kPa (30 psi)	
		Rear (kPa (psi))	241 kPa (35 psi)	
	Rev./mile—at 70 km/h (45 mph)			
Wheels	Type & material		STYLED - CAST ALUMINUM ALLOY	
	Rim (size & flange type)		15 x 6 JJ	
	Wheel offset		34.0 mm	
	Attachment	Type (bolt or stud)	STUDS AND NUTS	
		Circle diameter	100 mm	
Spare	Tire and wheel (same, if other describe)		Polyspare P155/80D 13	
	Storage position & location (describe)		Trunk-Wheel Well in Rear Floor Pan	

Tires And Wheels (Optional)

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)	
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)	

Brakes - Parking

Type of control		Hand operated Lever
Location of control		On Floor between Seats
Operates on		Rear Wheel
If separate from service brakes	Type (internal or external)	N.A.
	Drum diameter	N.A.
	Lining size (length x width x thickness)	N.A.

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (•) _____

Body Type And/Or
Engine Displacement

ALLIANCE

Steering

Manual (std., opt., n.a.)		Standard (Except Convertible & "DL")		N.A. on GTA	
Power (std., opt., n.a.)		Optional (Std. on Convertible & "DL" & GTA)			
Adjustable steering wheel column (tilt, telescope, other)	Type	Tilt/Non-Tilt		N.A. on GTA	
	Manufacturer				
	(Std., opt., n.a.)				
Wheel diameter** (W9) SAE J1100	Manual	380mm			
	Power	380mm			
Turning diameter m (ft.)	Outside front	Wall to wall (l. & r.)	9.97 (32.71) & 9.96 (32.67)		
		Curb to curb (l. & r.)	9.24 (30.31) & 9.22 (30.26)		
	Inside rear	Wall to wall (l. & r.)	4.55 (14.94)		
		Curb to curb (l. & r.)	4.63 (15.19)		
Scrub Radius*					
Manual	Gear	Type	Rack and Pinion		N.A. on GTA
		Manufacturer	Renault		
		Ratios	Gear	Overall	21.8:1
	No. wheel turns (stop to stop)		Four (4)		
Power	Type (coaxial, linkage, etc.)		Rack and Pinion		
	Manufacturer		TRW		
	Gear	Type	Integral Valve		
		Ratios	Gear	Overall	17.7:1
		Pump (drive)		Crankshaft Driven	
	No. wheel turns (stop to stop)		3.27		
Linkage	Type		Adjustable Tie Rod		
	Location (front or rear of wheels, other)		Rear		
	Tie rods (one or two)		Two (2)		
Steering axis	Inclination at camber (deg.)		7-1/2° at 1/16° Camber		
	Bearings (type)	Upper	Bottom of Spring - Ball Bearing		
		Lower	Ball Joint		
		Thrust			
Steering spindle & joint type					
Wheel spindle hub	Diameter	Inner bearing	Forged Knuckle		
		Outer bearing	35 - 65 x 35 Double Tapered Bearing		
	Thread (size)		M20 - 1.5		
	Bearing (type)		Double Tapered Bearing - Permanently Sealed and Lubricated		

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

**See Page 21.

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (•) _____

Body Type And/Or
Engine Displacement

ALLIANCE

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	$+1\frac{1}{4}^{\circ} \pm 3/4^{\circ}$	Not Adjustable
		Camber (deg.)	$-1/16^{\circ} \pm 1/4^{\circ}$	Not Adjustable
		Toe-in [outside track-mm (in.)]	-2.2 to -6.6mm (-0.087 to -0.259 in)	Toe Out
	Service reset*	Caster		Not Adjustable
		Camber		Not Adjustable
		Toe-in	-2.2 to -6.6mm (-0.086 to -0.259 in)	Toe Out
	Periodic M.V. inspection	Caster	$+1\frac{1}{4}^{\circ} \pm 3/4^{\circ}$	
		Camber	$-1/16^{\circ} \pm 1/4^{\circ}$	
		Toe-in	-2.2 to -6.6mm (-0.087 to -0.259 in)	Toe Out
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	$-0^{\circ}50' \pm 15'$	
		Toe-in [outside track-mm (in.)]	000' to 0015'	
	Service reset*	Camber		Not Adjustable
		Toe-in		Not Adjustable
	Periodic M.V. inspection	Camber	$-0^{\circ}50' \pm 15'$	
		Toe-in	000' to 0015'	

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

Electrical - Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)	Mechanical - Cable Drive
	Trip odometer (std., opt., n.a.)	Std On Some Models
EGR maintenance indicator		N.A.
Charge indicator	Type	Voltmeter Std. on some Models
	Warning device (light, audible)	Warning Lamps - STD on Some Models
Temperature indicator	Type	Electric Gauge - STD
	Warning device (light, audible)	Warning Lamp - STD on Some Models
Oil pressure indicator	Type	
	Warning device (light, audible)	Warning Lamp
Fuel indicator	Type	Electric Gauge
	Warning device (light, audible)	Low Fuel Warning Light
Windshield wiper	Type (standard)	Electric-Two-Speed and Pulse Wipe Washer
	Type (optional)	Intermittent Wiper - Fixed Interval (Std. on Some Models)
	Blade length	457.2mm (18 in)
	Swept area [cm ² (in. ²)]	5335 cm ² (827 in ²)
Windshield washer	Type (standard)	Fluidic - Electric Pump Single Nozzle
	Type (optional)	None
	Fluid level indicator (light, audible)	Float Type Electric Signal
Rear window wiper, wiper/washer (std., opt., n.a.)		
Horn	Type	Electric Diaphragm
	Number used	One (Base & L. Models) - Two (DL, GS Models)
Other		Seat Belt Warning Lamp & Buzzer, Key Reminder, Buzzer (Std. Base & L,S Models); Seat Belt Warning Lamp & Chime, Key Reminder & Headlamps on Chimes (Std-DL, & GS Models); Parking Brake Warning Lamp-Std; Electric

Tachometer - Std. on some Models.

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line ALLIANCE/GTA
Model Year 1987 Issued 10/10/86 Revised (●)

Body Type And/Or
Engine Displacement

ALLIANCE/GTA

Wheel Alignment

Front wheel at curb mass (wt.)	Service checking	Caster (deg.)	$+1\frac{1}{4}^{\circ} \pm 3/4^{\circ}$	Not Adjustable
		Camber (deg.)	$-1\frac{3}{8}^{\circ} \pm \frac{1}{2}^{\circ}$	Not Adjustable
		Toe-in (outside track-mm (in.))	-2.2 to -6.6mm (-0.087 to -0.259 in)	Toe Out
	Service reset*	Caster	Not Adjustable	
		Camber	Not Adjustable	
		Toe-in	-2.2 to -6.6mm (-0.086 to -0.259 in)	Toe Out
	Periodic M.V. inspection	Caster	$+1\frac{1}{4}^{\circ} \pm 3/4^{\circ}$	
		Camber	$-1\frac{3}{8}^{\circ} \pm \frac{1}{2}^{\circ}$	
		Toe-in	-2.2 to -6.6mm (-0.087 to -0.259 in)	Toe Out
Rear wheel at curb mass (wt.)	Service checking	Camber (deg.)	$-1^{\circ}10'$ to $-1^{\circ}25'$	
		Toe-in (outside track-mm (in.))	$0^{\circ}15'$ to $0^{\circ}30'$	
	Service reset*	Camber	Not Adjustable	
		Toe-in	Not Adjustable	
	Periodic M.V. inspection	Camber	$-1^{\circ}10'$ to $-1^{\circ}25'$	
		Toe-in	$0^{\circ}15'$ to $0^{\circ}30'$	

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

Electrical - Instruments and Equipment

Speedometer	Type (analog, digital, std., opt.)	Mechanical - Cable Drive Analog Std.
	Trip odometer (std., opt., n.a.)	Standard
EGR maintenance indicator		N.A.
Charge indicator	Type	Voltmeter Std.
	Warning device (light, audible)	Warning Lamps - STD
Temperature indicator	Type	Electric Gauge - STD
	Warning device (light, audible)	Warning Lamp - STD
Oil pressure indicator	Type	
	Warning device (light, audible)	Warning Lamp
Fuel indicator	Type	Electric Gauge
	Warning device (light, audible)	Low Fuel Warning Light
Wind-shield wiper	Type (standard)	Electric-Two-Speed and Pulse Wipe Washer
	Type (optional)	Intermittent Wiper - Fixed Interval
	Blade length	457.2mm (18 in)
	Swept area (cm ² (in. ²))	5335 cm ² (827 in ²)
Wind-shield washer	Type (standard)	Fluidic - Electric Pump
	Type (optional)	None
	Fluid level indicator (light, audible)	Float Type Electric Signal
Rear window wiper, wiper/washer (std., opt., n.a.)		N.A.
Horn	Type	Electric Diaphragm
	Number used	One
Other		Seat belt Warning, Door Ajar, Parking/Headlights on, High beams, brake, engine oil pressure lights, Tachometer, key-in-ignition

MVMA Specifications Form Passenger Car

METRIC (U.S. Customary)

Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (•) _____

Engine Description/Carb.
Engine Code

4 Cyl. 1.4L (85 C.I.D.)

4 Cyl. 1.7L (105 C.I.D.)

4 Cyl. 2.0L (120 C.I.D.)

Electrical - Supply System

Battery	Manufacturer	Globe Union - Maintenance Free	
	Model, std., (opt.)	58-390 CCA (58-425 CCA)	58A-425 CCA (58-475 CCA)
	Voltage	12 Volts	
	Amps at 0°F cold crank	390 AMPS (425 AMPS)	425 AMPS (475 AMPS)
	Minutes-reserve capacity	75 min (82 min)	82 min (80 min)
	Amp/hrs. - 20 hr. rate	NA	
Alternator	Location	Engine Compartment - Front, Right Side	
	Manufacturer		
	Rating	Alternator - 12 Volt 50 Amp	Alternator - 12 Volt 60 Amp
	Ratio (alt. crank/rev.)	2:15:1	
Regulator	Optional (type & rating)	Alternator - 12 Volt 70 Amp	Alternator - 12 Volt 75 Amp
	Type	Electronic - Integral with Alternator	

Electrical - Starting System

Start, motor	Current drain at 0°F	200 Amps
Motor drive	Engagement type	Positive (Pre-engaged) Solenoid
	Pinion engages from (front, rear)	Rear

Electrical - Ignition System

Type	Electronic (std., opt., n.a.)	Standard - Programmed Spark Advance	
	Other (specify)		
Coil	Make	Part of Ignition Control Box (Renix)	
	Model	Opt: Ducellier, AC Delco, Magnetic Marelli	
	Current	Engine stopped - A	0
		Engine idling - A	0.4A - 0.8A
Spark plug	Make	Champion	Champion
	Model	RN 12YC/RN-12Y	RN-9YC
	Thread (mm)	14mm	14mm
	Tightening torque (N-m (lb. ft.))	24.4-29.8 (18.22)	24.4-29.8 (18.22)
	Gap	0.8mm (.032 in)	0.8mm (.032 in)
	Number per cylinder	One	One
Distributor	Make	Ducellier	Ducellier
	Model	7700707070	7700718086

Electrical - Suppression

Locations & type	Suppression Type Ignition Cables Resistor Type Spark Plugs	1.7L also has Silicon Grease on rotor tip.
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METRIC (U.S. Customary)

Car Line ALLIANCE
Model Year 1987 Issued 10/10/86 Revised (•) _____

[illegible]

* Reference - SAE J1100 Motor vehicle dimensions, curb weight definition.
 ** Shipping mass (weight) definition -

MVMA Specifications Form **Passenger Car**

ALLIANCE
Car Line _____
Model Year 1987 Issued 10/10/86 Revised (•) _____

METRIC (U.S. Customary)

Optional Equipment Differential Mass (weight)*

Equipment	MASS, kg. (weight, lb.)			Remarks
	Front	Rear	Total	
TRIM PACKAGES:				
"DL" 4-Door	6.27 (13.8)	5.90 (13.0)	12.17 (26.8)	Weights for all "DL" models include weight of:
2-Door "DL"	6.97 (15.4)	6.49 (14.3)	13.48 (29.7)	. 5-speed manual transmission . P175/13 Tires . Extra quiet insulation Pkg.
Convertible "DL"	6.40 (14.1)	5.86 (12.9)	12.26 (27.0)	Weight for "GS" model includes weight of:
Hatchback "DL" 3-Door	6.45 (14.2)	7.76 (17.1)	14.20 (31.3)	. 1.7L Engine . 5-speed manual transmission . P185/14 tires
Hatchback "DL" 5-Door	6.00 (13.2)	7.39 (16.3)	13.39 (29.5)	
Hatchback "GS" 3-Door	27.08 (59.7)	3.41 (7.7)	30.49 (67.4)	
ENGINES:				
1.7L 4 Cyl. Fuel Injected	20.0 (44.1)	-1.9 (-4.0)	18.1 (40.1)	
2.0L 4 Cyl.	20.5 (45.2)	-1.8 (-4.0)	18.7 (41.2)	
TRANSMISSIONS:				
5-Speed Manual	2.0 (4.4)	0.0 (0.0)	2.0 (4.4)	
3-Speed Automatic	12.7 (28.0)	0.0 (0.0)	12.7 (28.0)	
TIRES:				
P175/70R13 Steel Belted	2.27 (5.0)	2.27 (5.0)	4.54 (10.0)	
P185/60R14 Steel Belted	3.63 (8.0)	3.63 (8.0)	7.26 (16.0)	
2.0 L 4Cyl. Fuel Injected	20.5 (45.2)	-1.8 (-4.0)	18.7 (41.2)	

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