



*1991*  
***CHEVROLET***  
***LUMINA***

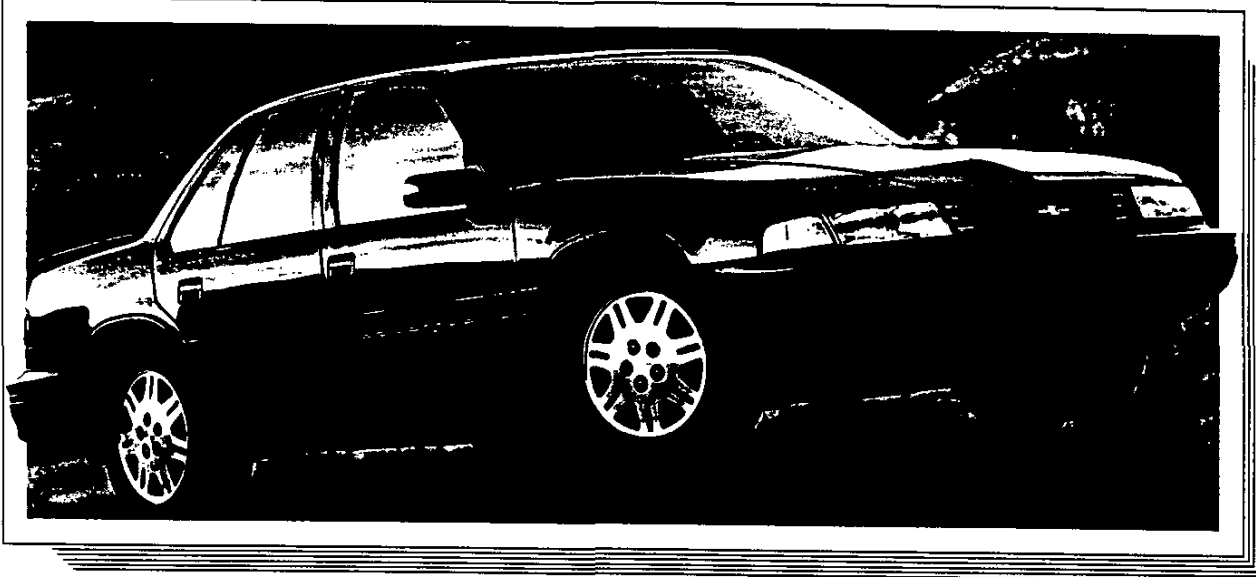


# '91 LUMINA

| LUMINA            | MODEL NUMBER | PASSENGER CAPACITY |
|-------------------|--------------|--------------------|
| 4-Door Sedan      | 1WL69        | Sedan              |
| 4-Door Euro Sedan | 1WN69        | Coupe              |
| 2-Door Coupe      | 1WL27        |                    |
| 2-Door Euro Coupe | 1WN27        |                    |

6"  
6"

Lumina Euro Sedan.



## HIGHLIGHTS

- Available as family-sized Sedan and Coupe.
- Redesigned grille on all models.
- 2.5 Liter L4 with Electronic Fuel Injection (EFI) standard. 3.1 Liter V6 with Multi-Port Fuel Injection (MPI) optional on base models.
- Euro models available with Red on Black exterior trim, 15" wheels, black interior accents, sport suspension and 3.1L V6 as standard.
- Automatic transmission standard.
- Power 4-wheel disc brakes and power steering standard.
- 4-wheel lubed-for-life independent suspension with single transverse-mounted fiberglass rear leaf spring.
- Stainless steel exhaust system.
- Scotchgard™ Fabric Protector on seat trim and door panels.
- AM/FM stereo with seek-scan, digital clock and Extended Range Sound System (ERS™) standard.
- New body-color wheel lip moldings on Euro models.

## EQUIPMENT AVAILABILITY

|   | Lumina Sedan | Lumina Euro Sedan | Lumina Coupe | Lumina Euro Coupe |
|---|--------------|-------------------|--------------|-------------------|
| Composite halogen headlamps   | S            | S                 | S            | S                 |
| Body-color grille   | S            | S                 | S            | S                 |
| Soft body-color facias  | S            | S                 | S            | S                 |
| Black facia rub strips and body-side moldings with bright inserts                           | S            | NA                | S            | NA                |
| Black facia rub strips and body-side moldings with Red inserts                              | NA           | S                 | NA           | S                 |
| Black wheelhousing rub strips   | S            | NA                | S            | NA                |
| Black exterior accent color   | NA           | S                 | NA           | S                 |
| Body-color wheelhousing rub strips  | NA           | S                 | NA           | S                 |
| Air conditioning  | O            | S                 | O            | S                 |
| Flush-mounted tinted glass  | S            | S                 | S            | S                 |
| Black door glass and beltline moldings, rear roof trim pillar plates and sport mirror backs | NA           | S                 | NA           | S                 |
| Illuminated door lock cylinders   | NA           | NA                | S            | S                 |
| Inside day/night mirror with integral courtesy lamps  | S            | S                 | S            | S                 |
| Visor vanity mirrors, LH and RH   | S            | S                 | S            | S                 |
| Sport steering wheel  | S            | S                 | S            | S                 |
| Black instrument panel facia and door panel appliques                                       | NA           | S                 | NA           | S                 |
| Full floor carpeting, including trunk   | S            | S                 | S            | S                 |
| P195/75R-14 blackwall radial tires  | S            | NA                | S            | NA                |
| 14" full wheel covers   | S            | NA                | S            | NA                |
| 15" aero wheel covers   | NA           | S                 | NA           | S                 |
| 16" styled aluminum wheels  | NA           | O                 | NA           | O                 |
| Sport suspension—Firm ride  | NA           | S                 | NA           | S                 |
| Soft ride suspension  | S            | NA                | S            | NA                |
| Rear spoiler  | NA           | S*                | NA           | S*                |

S—Standard O—Optional at extra cost. NA—Not Available \*Delete Available

Refer to Passenger Car Order Guide for option availability and application.

## ORDERING INFORMATION

## PREFERRED EQUIPMENT GROUPS

**NOTE:** NOT TO BE USED FOR ORDERING. REFER TO ORDER GUIDE FOR CURRENT USAGE AND AVAILABILITY.

| DESCRIPTION   | LUMINA          |             |             | LUMINA EURO     |             |
|---|-----------------|-------------|-------------|-----------------|-------------|
|   | COUPE AND SEDAN |             |             | COUPE AND SEDAN |             |
|   | P.E.G.<br>1     | P.E.G.<br>2 | P.E.G.<br>3 | P.E.G.<br>1     | P.E.G.<br>2 |
| Floor Mats, Color-Keyed Front/Rear  | X               | X           | X           | X               | X           |
| Air Conditioning  | X               | X           | X           | STD.            | STD.        |
| Comfortilt Steering Wheel   | X               | X           | X           | X               | X           |
| Electronic Speed Control  |                 | X           | X           | X               | X           |
| Luggage Area Cargo Retaining Net  |                 | X           | X           | X               | X           |
| Luggage Rack  |                 | X           | X           |                 |             |
| Twin Remote Sport Mirrors   |                 |             | X           |                 | X           |
| Power Door Lock System  |                 |             | X           | O               | X           |
| Power Trunk Opener  |                 |             | X           |                 | X           |
| Power Windows   |                 |             | X           |                 | X           |
| Gage Package w/Tachometer   |                 |             |             | X               | X           |
| AM/FM Stereo with Seek-Scan, Cassette, Digital Clock and ERS  |                 |             |             | O               | X           |
| Delco/Bose AM/FM Stereo with Seek-Scan, Stereo Cassette Tape Player with Auto Reverse, Digital Clock and Bose Speaker System  |                 |             |             |                 |             |
| <b>INDIVIDUAL OPTIONS</b>   |                 |             |             |                 |             |
| <b>Tires/Wheel Trim</b>   |                 |             |             |                 |             |
| P195/75R-14 White-Stripe Tires  | O               | O           | O           |                 |             |
| P225/60R-16 Blackwall Tires   |                 |             |             | O               | O           |
| 14" Sport Wheel Covers  | O               | O           | O           |                 |             |
| 16" Aluminum Wheels   |                 |             |             | O               | O           |
| <b>Climate Control</b>  |                 |             |             |                 |             |
| Air Conditioning  | X*              | X           | X           | STD.            | STD.        |
| Electric Rear Window Defogger   | O               | O           | O           | O               | O           |
| <b>Radio Equipment</b>  |                 |             |             |                 |             |
| AM/FM Stereo with Seek-Scan, Cassette, Digital Clock and ERS  | O               | O           | O           | O               | X           |
| Delco/Bose AM/FM Stereo with Seek-Scan, Stereo Cassette Tape Player with Auto Reverse, Digital Clock and Bose* Speaker System | O               | O           | O           | O               | O           |
| <b>Additional Individual Options</b>  |                 |             |             |                 |             |
| Power Door Lock System  | O               | O           | X           | O               | X           |
| Rear Spoiler Delete   |                 |             |             | O               | O           |
| Front License Plate Bracket   | O               | O           | O           | O               | O           |
| Power Seat—Driver's Side (requires Custom Cloth 60/40 Seat, Sedan only)   | O               | O           | O           | O               | O           |

STD.—Standard X—Included in P.E.G. O—Available Individual Option ERS—Extended Range Sound System.  
\*Available as an individual Option only with Base Vehicle Group

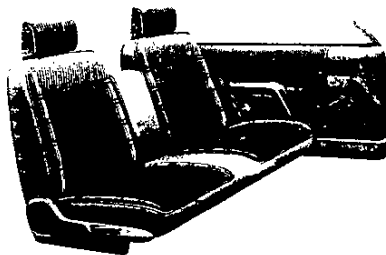
Refer to Passenger Car Order Guide for option availability and application.

## SEAT TYPES & COLORS

### LUMINA SEDAN/COUPE STANDARD CLOTH SEAT TRIM



Standard cloth seat trim available in Dark Blue, Light Brown, Gray or Garnet Red.

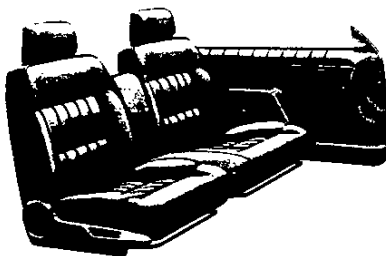


Standard cloth bench seat with fold-up center armrest, reclining seat-backs and adjustable head restraints.

### LUMINA SEDAN/COUPE OPTIONAL CUSTOM CLOTH 60/40 SEAT TRIM

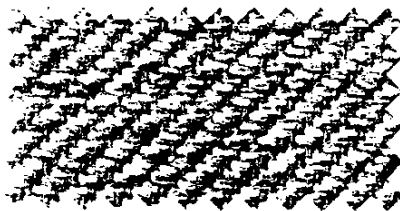


Optional Custom Cloth seat trim available in Dark Blue, Light Brown, Gray or Garnet Red.



Optional Custom Cloth 60/40 seat with fold-up center armrest, reclining seat-backs and adjustable head restraints.

### LUMINA EURO SEDAN/COUPE OPTIONAL CUSTOM CLOTH FORMAL BUCKET SEAT TRIM



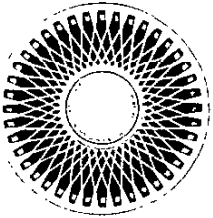
Optional Custom Cloth seat trim available in Dark Blue, Light Brown, Gray or Garnet Red.



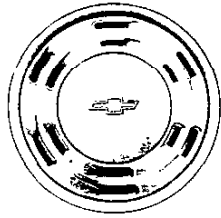
Optional Custom Cloth formal bucket seats with full floor console, reclining seat-backs and adjustable head restraints.

Refer to Passenger Car Order Guide for option availability and application.

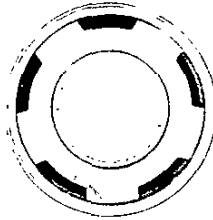
## WHEEL TRIM



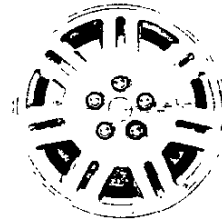
Lumina Coupe and Sedan standard 14" full wheel cover.



Lumina Coupe and Sedan optional 14" Sport wheel covers.

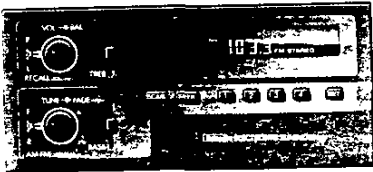


Lumina Euro Coupe and Sedan standard 15" full wheel cover.

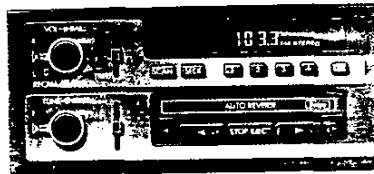


Lumina Euro Coupe and Sedan optional 16" aluminum wheel.

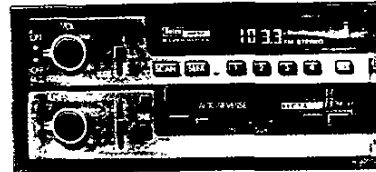
## RADIOS



Standard electronically tuned Delco AM/FM stereo radio with seek-scan, digital clock, Extended Range Sound System (ERS) and four premium speakers.



Optional electronically tuned Delco AM/FM stereo radio with seek-scan, stereo cassette tape player, digital clock and Extended Range Sound System (ERS) (RPO UM6).



Optional Delco/Bose Sound System includes electronically tuned AM/FM stereo with seek-scan, stereo cassette tape player with auto reverse, music search, digital clock and Bose® speaker system (RPO UU8).

## VALUE FEATURES

Lumina models include many standard features that enhance operation, safety and convenience. For 1991, these include:

- Power rack-and-pinion steering.
- Power 4-wheel disc brakes.
- Dual sport mirrors (LH remote).
- Flush-mounted tinted glass.
- Protective body-side moldings and wheel-housing rub strips.
- Intermittent windshield wipers with wet-arm washers.
- Stainless steel exhaust system.
- Base-coat/clear-coat paint.
- Soft bumper facias.
- Corrosion-resistant two-sided galvanized steel for most body surfaces.
- **Scotchgard™ Fabric Protector.**
- Deluxe trunk decor.
- Inside day/night mirror with integral courtesy lamps.
- Lubed-for-life suspension components.



© 1990 General Motors Corporation. All rights reserved. The Chevrolet emblem and Lumina are registered trademarks of General Motors Corporation.

All illustrations and specifications in this brochure are based on the latest product information available at the time of publication approval. The right is reserved to make changes at any time, without notice, in colors, materials, specifications and models, and also to discontinue models. Chevrolet Motor Division, General Motors Corporation, Warren, Michigan 48090



Refer to Passenger Car Order Guide for option availability and application.

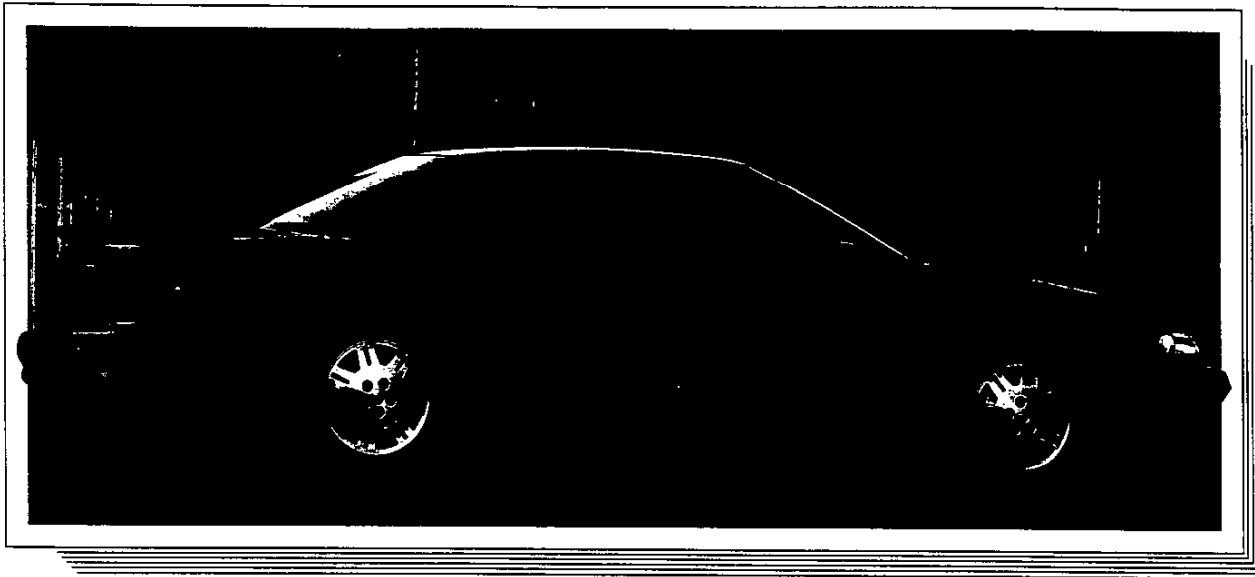
**UPDATE  
'91**

# LUMINA

**Z34**

| LUMINA           | MODEL NUMBER | PASSENGER CAPACITY |
|------------------|--------------|--------------------|
| 2-Door Z34 Coupe | 1WP27        | 2-Door Z34 Coupe   |

Lumina Z34 Coupe.



## HIGHLIGHTS

- Lumina Z34 is powered by an all-new Twin Dual Cam V6 displacing 3.4 liters. This engine's valve train includes four overhead camshafts (two per head) and four valves per cylinder. The Twin Dual Cam design provides precision valve timing for exceptional low-end torque and free breathing for higher RPM operation.
- A new 5-speed manual transmission with overdrive is standard, and a new electronically controlled 4-speed automatic with overdrive is optional.
- The fully independent Special Sport Suspension includes front and rear stabilizer bars, tuned spring rates and P225/60R-16 Eagle GT+4 performance radial tires.
- Exterior design highlights include lower body aero panels, a specific grille panel, louvered hood and extended rear spoiler.
- Z34 is available in five exterior colors: Black, Medium Gray Metallic, Silver Metallic, Torch Red, and White.
- Inside, sport bucket seats with Custom Cloth trim, a center console and analog gage instrumentation with tachometer add to the Z34's sports/performance attitude.

## EQUIPMENT AVAILABILITY

| LUMINA Z34   |   |
|--|---|
| <i>(In addition to or replacing Lumina Coupe or Euro Coupe features)</i>   |   |
| 3.4 Liter (207 CID) Twin Dual Cam V6 engine with Multi-Port Fuel Injection   | S |
| 5-speed manual transmission with overdrive   | S |
| 4-speed automatic transmission with overdrive and electronic shift control (requires transmission oil cooler)                | O |
| Air conditioning   | S |
| Comfortit steering wheel   | S |
| Custom Cloth sport bucket seats with console   | S |
| 4-way mechanical bucket seat adjusters   | S |
| Distinctive exterior appearance with "ground effects" panels, hood louvers and extended rear spoiler                         | S |
| Dual exhaust   | S |
| Dual remote sport mirrors  | S |
| Electronic speed control with resume speed   | S |
| Electronically tuned AM/FM stereo with seek-scan, stereo cassette tape player, digital clock and Extended Range Sound System | S |
| Gage package with tachometer   | S |
| Intermittent wipers  | S |
| In-trunk convenience net   | S |
| Special Sport Suspension   | S |
| P225/60R-16 Eagle GT+4 "H"-rated all-season radial tires   | S |
| 16" cast-aluminum wheels   | S |

S-Standard on Lumina Z34 O-Optional

## PREFERRED EQUIPMENT GROUP

NOTE: NOT TO BE USED FOR ORDERING. REFER TO ORDER GUIDE FOR CURRENT USAGE AND AVAILABILITY.

| LUMINA Z34  | P.E.G. 1 |
|---|----------|
| <b>Delco/Bose Music System:</b>   |          |
| Electronically Tuned AM/FM Stereo w/Seek-Scan, Stereo Cassette Tape Player, Digital Clock and Bose Speaker System | X        |
| Power Door Locks  | X        |
| Power Trunk Opener  | X        |
| Power Windows   | X        |
| <b>INDIVIDUAL OPTIONS</b>   |          |
| <b>Climate Control</b>  |          |
| Electric Rear-Window Defogger   | O        |
| <b>Additional Individual Options</b>  |          |
| Front License Plate Bracket   | O        |
| Power Door Locks  | X*       |

X-Included in P.E.G. O-Optional.  
\*Individual option with Base Vehicle Group only.

## O R D E R I N G I N F O R M A T I O N

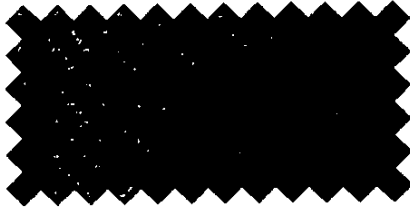
Refer to Passenger Car Order Guide for option availability and application.



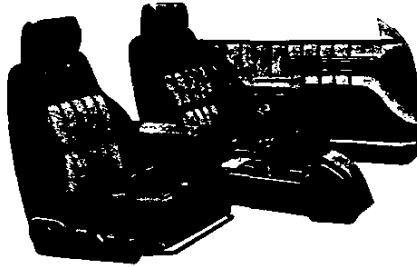
## SEAT TYPES & COLORS

## WHEEL TRIM

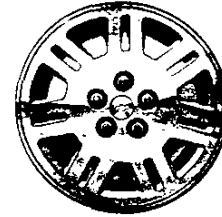
### LUMINA Z34 COUPE CUSTOM CLOTH BUCKET SEATS



Standard Custom Cloth seat trim available in Gray or Garnet Red.



Standard Custom Cloth 40/40 sport bucket seats with driver and front-passenger seat-back recliners and 4-way mechanical bucket seat adjusters.



Lumina Z34 Coupe standard 16" cast-aluminum wheel.

## ENGINE DATA

### ENGINE TYPE:

Twin Dual Cam V6 with Multi-Port Fuel Injection. Four overhead camshafts (two per cylinder head). Four valves per cylinder (two intake, two exhaust). Six dual-spray Multec fuel injectors (one per cylinder). Dual exhaust.

### DISPLACEMENT:

3.4 Liters (207 cu. in.)

### BORE & STROKE:

3.62 in. x 3.31 in.

### HORSEPOWER:

w/5-speed manual transmission:

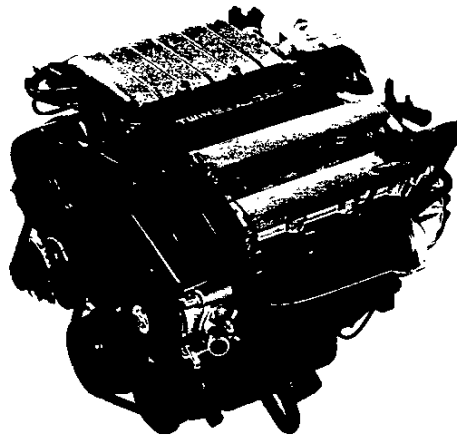
210 @ 5200 RPM

w/4-speed automatic transmission:

200 @ 5000 RPM

### TORQUE:

215 lbs.-ft. @ 4000 RPM



## INSTRUMENTATION



Lumina Z34 instrumentation includes tachometer, oil pressure and temperature gauges.

## DIMENSIONS (in.)

### EXTERIOR

|                      |        |
|----------------------|--------|
| Wheelbase            | 107.5* |
| Length (overall)     | 199.3  |
| Width (overall)      | 71.7*  |
| Height (normal load) | 53.3*  |
| Tread—Front          | 59.5*  |
| Tread—Rear           | 58.0*  |

### CURB WEIGHT

|                   |      |
|-------------------|------|
| (lbs., estimated) | 3374 |
|-------------------|------|

\*Same as Lumina Coupe and Lumina Euro Coupe. All interior dimensions are also the same as Lumina Coupe and Lumina Euro Coupe.

©1990 General Motors Corporation. All rights reserved. Chevrolet, the Chevrolet emblem and Lumina are registered trademarks of General Motors Corporation.

All illustrations and specifications in this brochure are based on the latest product information available at the time of publication approval. The right is reserved to make changes at any time, without notice, in colors, materials, specifications and models and also to discontinue models. Chevrolet Motor Division, General Motors Corporation, Warren, Michigan 48090.



# \*CUSTOM ORDERING OPTIONS

| MSRP   | OPTION | DESCRIPTION  | LUMINA      |                  |      |        | CAVALIER       |          | CORSICA |      | BERETTA |      |      |
|--------|--------|--|-------------|------------------|------|--------|----------------|----------|---------|------|---------|------|------|
|        |        |  | CPE & SEDAN | EURO CPE & SEDAN | APV  | CL APV | RS CPE & SEDAN | RS WAGON | Z-24    | LT   | BERETTA | GT   | GTZ  |
| BASE   |        |  | WLAB        | WZAB             | WPAB | WVAB   | JCAB           | JWAB     | JZAB    | LBAB | LVAB    | LGAB | LEAB |
| 30.00  | AP9    | CARGO RETAINING NET, LUGGAGE AREA  | X           | X                |      |        | X              |          |         |      |         |      |      |
| 33.00  | B37    | MATS CARPETED, FRONT AND REAR  |             |                  |      |        | X              | X        | X       |      |         |      |      |
| 100.00 | UB3    | GAGE PKG W/TACH  |             | X                |      |        |                |          |         |      |         |      |      |
| 210.00 | K34    | SPEED & CRUISE CONTROL<br>(Reqs CD4 Intermittent Wipers and N33 Comfortilt Steering) |             |                  |      |        | X              | X        | X       |      |         |      |      |
| 210.00 | K34    | SPEED & CRUISE CONTROL<br>(Reqs N33 Comfortilt Steering)                             |             |                  |      |        |                |          |         | X    | X       | X    | X    |
| 210.00 | K34    | SPEED & CRUISE CONTROL   | X           | X                | X    | X      |                |          |         |      |         |      |      |
| 135.00 | N33    | TILT WHEEL   | X           | X                | X    |        | X              | X        | X       | X    | X       | X    | X    |
| 30.00  | D35    | MIRRORS, SPORT, LH REMOTE RH MANUAL  |             |                  |      |        | X              | X        |         |      |         |      |      |
| 50.00  | A90    | POWER TRUNK OPENER (Reqs AU3 Power Door Locks and A31 Power Windows)                 |             |                  |      |        | X              |          | X       |      |         |      |      |
| 50.00  | A90    | POWER TRUNK OPENER   | x           | x                |      |        |                |          |         | X    | X       | X    | X    |
| 245.00 | A31    | <b>COUPE</b><br>POWER WINDOWS<br>(Reqs AU3 Power Door Locks)                         | X           | X                |      |        |                |          |         |      |         |      |      |
| 310.00 | A31    | <b>SEDAN</b><br>POWER WINDOWS<br>(Reqs AU3 Power Door Locks)                         | X           | X                |      |        |                |          |         |      |         |      |      |
| 255.00 | A31    | POWER WINDOWS (Reqs AB5 Electric Side Door Lock)                                     |             |                  | X    | X      |                |          |         |      |         |      |      |
| 310.00 | A31    | <b>WAGON</b><br>POWER WINDOWS (Reqs AU3 Power Door Locks)                            |             |                  |      |        |                | X        |         |      |         |      |      |
| 245.00 | A31    | <b>COUPE</b><br>POWER WINDOWS (Reqs AU3 Power Door Locks and A90 Power Trunk Opener) |             |                  |      |        | X              |          | X       |      |         |      |      |
| 310.00 | A31    | <b>SEDAN</b><br>POWER WINDOWS (Reqs AU3 Power Door Locks and A90 Power Trunk Opener) |             |                  |      |        | X              |          |         |      |         |      |      |
| 320.00 | A31    | <b>CORSICA</b><br>POWER WINDOWS (Reqs Console, and AU3 Power Door Locks)             |             |                  |      |        |                |          |         | X    |         |      |      |
| 255.00 | A31    | <b>BERETTA</b><br>POWER WINDOWS (Incls Console, Reqs AU3 Power Door Locks)           |             |                  |      |        |                |          |         |      |         | X    | X    |
| 255.00 | A31    | <b>BERETTA</b><br>POWER WINDOWS (Reqs Console, and AU3 Power Door Locks)             |             |                  |      |        |                |          |         |      | X       |      |      |
| 60.00  | TR9    | AUX LIGHTING   |             |                  | X    |        |                |          |         |      |         |      |      |
| 23.00  | DC4    | MIRROR, REAR VIEW W/READ LAMP  |             |                  |      |        |                |          |         | X    | X       | X    |      |
| 150.00 | AM9    | <b>COUPE/SEDAN</b><br>SEAT, REAR SPLIT FOLDING                                       |             |                  |      |        | X              |          |         |      |         |      |      |
| 50.00  | AM9    | <b>WAGON</b><br>SEAT, REAR SPLIT FOLDING   |             |                  |      |        |                | X        |         |      |         |      |      |
| 55.00  | CD4    | INTERMITTENT WIPERS  |             |                  |      |        | X              | X        | X       | X    | X       | X    |      |
| 5.00   | CR3    | READING LAMP, INSTRUMENT PANEL   |             |                  |      |        | X              | X        |         |      |         |      |      |
| 14.00  | DD2    | MIRRORS, DUAL VISOR VANITY   |             |                  |      |        | X              | X        |         |      |         |      |      |
| 20.00  | D34    | MIRRORS, VISOR W/SUNSHADE EXTENSIONS   |             |                  |      |        |                |          |         |      | X       |      |      |
| 25.00  | B34    | FLOOR COVERING, CARPETED MATS, FRONT (Incls B35 Rear Floor Mat)                      | X           | X                |      |        |                |          |         |      |         |      |      |
| 18.00  | B34    | FLOOR COVERING, CARPETED MATS, FRONT (Incls B35 Rear Floor Mat)                      |             |                  |      |        |                |          |         | X    | X       | X    | X    |
| 20.00  | B35    | FLOOR COVERING, CARPETED MATS, REAR (Reqs B34 Front Floor Mat)                       | X           | X                |      |        |                |          |         |      |         |      |      |
| 15.00  | B35    | FLOOR COVERING, CARPETED MATS, REAR (Reqs B34 Front Floor Mat)                       |             |                  |      |        |                |          |         | X    | X       | X    | X    |

Continued on next page

\*CUSTOM ORDERING OPTIONS ARE AVAILABLE WITH BASE PEGS ONLY.

PUBLISHED 9-15-90

# \*CUSTOM ORDERING OPTIONS

| MSRP  | OPTION | DESCRIPTION   | LUMINA      |                  |      |        | CAVALIER       |          |      | CORSICA | BERETTA |      |      |
|-------|--------|---|-------------|------------------|------|--------|----------------|----------|------|---------|---------|------|------|
|       |        |   | CPE & SEDAN | EURO CPE & SEDAN | APV  | CL APV | RS CPE & SEDAN | RS WAGON | Z-24 | LT      | BERETTA | GT   | GTZ  |
| BASE  |        |   | WLAB        | WZAB             | WPAB | WVAB   | JCAB           | JWAB     | JZAB | LBAB    | LVAB    | LGAB | LEAB |
| 30.00 | D68    | MIRRORS, SPORT TWIN REMOTE                                  | X           | X                | X    | X      |                |          |      |         |         |      |      |
| 20.00 | B32    | FLOOR COVERING, CARPETED MATS, FRONT                        |             |                  | X    | X      |                |          |      |         |         |      |      |
| 15.00 | B33    | FLOOR COVERING, CARPETED MATS, REAR (5 Person Seating)      |             |                  | X    | X      |                |          |      |         |         |      |      |
| 30.00 | B33    | FLOOR COVERING, CARPETED MATS, REAR (6 or 7 Person Seating) |             |                  | X    | X      |                |          |      |         |         |      |      |
| 24.00 | C95    | DOME READING LAMP   |             |                  |      |        |                |          | X    |         |         |      |      |

\*CUSTOM ORDERING OPTIONS ARE AVAILABLE WITH BASE PEGS ONLY.

PUBLISHED 9-15-90

# CHEVROLET SPECIFICATIONS --1991 LUMINA

| MODELS                           | PASSENGERS |
|----------------------------------|------------|
| Lumina 2-Door Coupe (1WI 27)     | 6          |
| Lumina Euro 2-Door Coupe (1WN27) | 6          |
| Lumina Z-34 2-Door Coupe (1WP27) | 6          |
| Lumina 4-Door Sedan (1WL69)      | 6          |
| Lumina Euro 4-Door Sedan (1WN69) | 6          |

## DIMENSIONS (inches)

### EXTERIOR

|                  |                            |
|------------------|----------------------------|
| Wheelbase        | 107.5                      |
| Length (overall) | Sedan 197.6<br>Coupe 198.4 |
| Width (overall)  | Sedan 71.0<br>Coupe 71.7   |
| Height (overall) | Sedan 53.6<br>Coupe 53.3   |

### INTERIOR

|                          |                                    |
|--------------------------|------------------------------------|
| Head Room-Front/Rear     | Sedan 38.8/38.1<br>Coupe 37.6/37.2 |
| Shoulder Room-Front/Rear | Sedan 58.2/56.2<br>Coupe 57.5/56.9 |
| Hip Room-Front/Rear      | Sedan 52.3/52.3<br>Coupe 51.4/52.0 |
| Leg Room-Front/Rear      | Sedan 42.4/36.9<br>Coupe 42.4/34.8 |

### LUGGAGE/CARGO CAPACITY (cu. ft.)

|                     |                          |
|---------------------|--------------------------|
| Luggage Compartment | Sedan 15.7<br>Coupe 15.5 |
|---------------------|--------------------------|

|                                    |                   |
|------------------------------------|-------------------|
| RATED FUEL TANK CAPACITY (gallons) | Sedan, Coupe 16.5 |
|------------------------------------|-------------------|

## POWER TEAMS

### STANDARD ENGINE

- Sedan and Coupe-RPO LR8 2.5 Liter (151 cu. in.) L4 with Electronic Fuel Injection (EFI)
- Euro Sedan and Coupe-RPO LH0 3.1 Liter (191 cu. in.) V6 with Multi-Port Fuel Injection (MPI)
- Z-34 Coupe-RPO LQ1 3.4 Liter V6 with Multi-Port Fuel Injection (MPI)

### STANDARD TRANSMISSION

- 3-Speed Automatic
- 5-Speed Manual (Z-34 Coupe)

### OPTIONAL TRANSMISSION

- 4-Speed Automatic

## STANDARD EQUIPMENT SUMMARY

- Composite Halogen Headlamps
- Body-Colored Grille with Gold Bowtie
- Soft Body Color Fascias
- Flush-Mounted Tinted Glass
- Dual Black Sport Mirrors (LH Remote Control)
- Black Body Side Moldings with Bright Inserts
- Black Wheelhousing Rub Strips
- AM/FM Stereo Radio with Digital Clock, Seek and Scan and Four Speakers
- Inside Day/Nite Rearview Mirror with Integral Courtesy Lamps
- LH and RH Visor Vanity Mirrors with Cover (Driver's Side Only)
- Full Floor Carpeting Including Trunk
- Durable Base-Coat/Clear-Coat Paint
- Power Steering
- Power 4-Wheel Disc Brakes
- Tuned 4-Wheel Independent Suspension
- Lubed-For-Life Suspension Components
- Stainless Steel Exhaust System
- Panel Lamp w/Delay Illumination
- Intermittent Wipers
- Auxiliary Lighting

## SEAT STYLES

### STANDARD SEATS

- Sedan and Coupe-Cloth Bench with Center Armrest, Reclining Seat-Backs and Adjustable Head Restraints
- Euro Sedan and Coupe-Cloth Bench with Center Armrest, Reclining Seat-Backs and Adjustable Head Restraints
- Z-34 Coupe -Custom Cloth Bucket Seat with Full Floor Console, Reclining Seat-Backs and Adjustable Head Restraints

### OPTIONAL SEATS

- Sedan and Coupe-Custom Cloth 60/40 Seat with Centered Armrest, Reclining Seat-Backs and Adjustable Head Restraints
- Sedan and Coupe-Cloth 60/40 with Optional Center Armrest, Reclining Seat-Backs and Adjustable Head Restraints
- Euro Sedan and Coupe-Custom Cloth Formal Bucket Seats with Full Floor Console, Reclining Seat-Backs and Adjustable Head Restraints
- Euro Sedan and Coupe-Custom Cloth 60/40 Seat with Centered Armrest, Reclining Seat-Backs and Adjustable Head Restraints

# LUMINA Z-34 COUPE

## COLOR AND TRIM SELECTION

**PLEASE NOTE:** The Exterior Paint and Interior Trim Combinations Shown Below are the Only Combinations that are Available.

|                     |                     |      |            |
|---------------------|---------------------|------|------------|
| Interior Trim Color |                     | Gray | Garnet Red |
| MODEL               | SEAT TYPE           |      |            |
| 1WP27               | Custom Cloth Bucket | LQQ3 | LFF3       |

## SOLID PAINT APPLICATION

| Exterior Paint Color | Color Code 1 | Color Code 2 | Stripe (Included) | Gray | Garnet Red |
|----------------------|--------------|--------------|-------------------|------|------------|
| Black                | 41           | 41           | Dk Silver         | x    | x          |
| Gray, Med (Metallic) | 85           | 85           | Med Silver        | x    | x          |
| Red, Torch           | 70           | 70           | Med Silver        | x    |            |
| Silver (Metallic)    | 13           | 13           | Dk Silver         | x    | x          |
| White                | 40           | 40           | Lt Silver         | x    | x          |

## POWER TEAMS

| ENGINE OPTION CONDITION       | FINAL DRIVE RATIO |      |
|-------------------------------|-------------------|------|
|                               | 3.43              | 3.67 |
| WITH NA5 STANDARD EMISSIONS   |                   |      |
| LQ1 MX0                       | Std               | ---- |
| MM5                           | ----              | Std  |
| WITH YF5 CALIFORNIA EMISSIONS |                   |      |
| LQ1 MX0                       | Std               | ---- |
| MM5                           | ----              | Std  |

# LUMINA Z-34 COUPE

17,780.00 **Model 1WP27 Lumina Z-34 Coupe**

## PREFERRED VEHICLE MUST ORDER ONE GROUP -- NO DELETIONS ALLOWED

|                     |   |   |
|---------------------|---|---|
| 870.00<br>(-200.00) | <b>Preferred Equipment Group 1</b><br><b>Preferred Equipment Group 1 Savings</b><br>Delco/Bose Music System, Electronically Tuned AM/FM<br>Stereo Radio w/Seek-Scan, Stereo Cassette Tape<br>and Digital Clock<br>Power Door Locks<br>Power Trunk Opener<br>Power Windows | <b>WSA1</b><br><br><br><br><br><br><br><br><br><br>X<br>X<br>X<br>X |
|---------------------|---|---|

Base Vehicles may be ordered by specifying Preferred Equipment Group Code WSAB (Incls Tinted Glass, Dual Horns, LH and RH Visor Vanity Mirrors, P225/60R16 B/W Tires, Exterior Ground Effects, Gage Package w/Tach, Comfortilt Steering, Electronically Tuned AM/FM Stereo Radio w/Seek-Scan, Stereo Cassette Tape and Digital Clock, Auxiliary Lighting, Power Brakes, Deluxe Trunk Decor, Floor Mats, Twin Remote Sport Mirrors, Air Conditioning, Dual Reclining Bucket Seats, 16" Aluminum Wheels, Rear Spoiler, 5-Speed Manual Trans, Electronic Speed Control, 3.4 Liter MFI V6 Eng, Intermittent Wipers, Cargo Retaining Net, Dual Exhaust and Sport Suspension).

## REGIONALIZED OPTIONS ADDITIONAL OPTIONS MAY BE ORDERED FROM THIS LISTING ONLY

|        |  |        |   |
|--------|--|--------|---|
| N.C.   | <b>ENGINE (Must Order)</b><br>LQ1 3.4 Liter MFI V6   | V.P.S. | <b>RADIO EQUIPMENT</b><br>---- Electronically Tuned AM/FM Stereo<br>Radio w/Seek-Scan, Stereo<br>Cassette Tape and Digital Clock<br>w/Extended Range Sound<br>System (Base) |
| 200.00 | <b>TRANSMISSION (Must Order One)</b><br>MX0 4-Speed Automatic<br>(Reqs KD1 Trans Oil Cooler) |        |   |
| N.C.   | MM5 5-Speed Manual<br><b>EMISSION (Must Order One)</b>                                       | V.P.S. | UU8 Delco/Bose System, Electronically<br>Tuned AM/FM Stereo Radio<br>w/Seek-Scan, Stereo Cassette<br>and Digital Clock (Incl w/Group<br>WSA1)                               |
| N.C.   | NA5 Standard Emissions   |        |   |
| 100.00 | YF5 California Emissions<br><b>TIRES</b>   |        |   |
| N.C.   | ---- P225/60 R16 B/W (Radial) (Base)   |        |   |
|        | <b>WHEELS</b>  |        |   |
| N.C.   | ---- 16" Aluminum Wheel (Base)   | N.C.   | <b>INTERIOR TRIM</b><br>L**3 Custom Cloth Bucket  |
|        | <b>CLIMATE CONTROL</b>   |        | <b>ADDITIONAL OPTIONS</b>   |
| 170.00 | C49 Defogger, Rear Window: Electric  | N.C.   | VK3 License Plate Bracket, Front  |
| N.C.   | R9W Defogger, Rear Windows not Desired   | 210.00 | AU3 Power Door Locks (Incl w/ Group<br>WSA1)  |
|        |  | N.C.   | R8T Priced Order Acknowledgement  |
|        |  | 75.00  | KD1 Transmission Oil Cooler<br>(Reqs MX0 Trans)   |

# LUMINA EURO COUPE AND SEDAN

## COLOR AND TRIM SELECTION

PLEASE NOTE: The Exterior Paint and Interior Trim Combinations Shown Below are the Only Combinations that are Available.

| Interior Trim Color |                        | Dk Blue | Lt Brown | Gray | Garnet Red |
|---------------------|------------------------|---------|----------|------|------------|
| MODEL               | SEAT TYPE              |         |          |      |            |
| 1WN69               | Cloth Bench            | CDD1    | CEE1     | CQQ1 | CFF1       |
|                     | #* Custom Cloth Bucket | FDD2    | FEE2     | FQQ2 | FFF2       |
| 1WN27               | **Custom Cloth 60/40   | FDD3    | FEE3     | FQQ3 | FFF3       |

\*Incls Console

#N/A with Group WZAB

\*\*Incls Center Armrest with Storage Compartment

## SOLID PAINT APPLICATION

| Exterior Paint Color     | Color Code 1 | Color Code 2 | Dk Blue | Lt Brown | Gray | Garnet Red |
|--------------------------|--------------|--------------|---------|----------|------|------------|
| Beige, Lt                | 57           | 57           |         | x        |      |            |
| Black                    | 41           | 41           |         |          | x    | x          |
| Blue, Lt Sapphire (Met)  | 22           | 22           | x       |          |      |            |
| Blue, Med Sapphire (Met) | 27           | 27           | x       |          | x    |            |
| Gray, Med (Met)          | 85           | 85           | x       |          | x    | x          |
| Red, Med Garnet (Met)    | 72           | 72           |         |          | x    | x          |
| Red, Torch               | 70           | 70           |         | x        | x    |            |
| Silver (Met)             | 13           | 13           | x       |          | x    | x          |
| White                    | 40           | 40           | x       | x        | x    | x          |

## POWER TEAMS

| ENGINE OPTION CONDITION       | FINAL DRIVE RATIO |      |
|-------------------------------|-------------------|------|
|                               | 2.84              | 3.33 |
| WITH NA5 STANDARD EMISSIONS   |                   |      |
| LH0 MX0                       | ----              | Std  |
| MX1                           | Std               | ---- |
| WITH YF5 CALIFORNIA EMISSIONS |                   |      |
| LH0 MX0                       | ----              | Std  |
| MX1                           | Std               | ---- |

# LUMINA EURO COUPE AND SEDAN

15,300.00 **Model 1WN27 Lumina Euro Coupe**  
 15,500.00 **Model 1WN69 Lumina Euro Sedan**

## PREFERRED VEHICLE

MUST ORDER ONE GROUP -- NO DELETIONS ALLOWED

|           |   | WZA1 | WZA2 |
|-----------|---|------|------|
| 545.00    | <b>Preferred Equipment Group 1</b>  |      |      |
| (-200.00) | <b>Preferred Equipment Group 1 Savings (1WN27)</b>  |      |      |
| (-300.00) | <b>Preferred Equipment Group 1 Savings (1WN69)</b>  |      |      |
|           | Cargo Retaining Net, Luggage Area   | x    | x    |
|           | Floor Mats, Color-Keyed Front and Rear  | x    | x    |
|           | Gage Package w/Tachometer   | x    | x    |
|           | Speed Control: Electronic, w/Resume Speed   | x    | x    |
|           | Steering Wheel, Comfortilt  | x    | x    |
| 1250.00   | <b>Preferred Equipment Group 2 (1WN27)</b>  |      |      |
| 1355.00   | <b>Preferred Equipment Group 2 (1WN69)</b>  |      |      |
| (-400.00) | <b>Preferred Equipment Group 2 Savings (1WN27)</b>  |      |      |
| (-700.00) | <b>Preferred Equipment Group 2 Savings (1WN69)</b>  |      |      |
|           | Electronically Tuned AM/FM Stereo Radio w/Seek-Scan,<br>Stereo Cassette Tape and Digital Clock w/Extended<br>Range Sound System |      | x    |
|           | Mirrors: Sport, Twin Remote   |      | x    |
|           | Power Door Locks  |      | x    |
|           | Power Trunk Opener  |      | x    |
|           | Power Windows   |      | x    |

Base Vehicles may be ordered by specifying Preferred Equipment Group Code WZAB (Incls Air Conditioning, Tinted Glass, Sport Suspension, Dual Horns, LH and RH Visor Vanity Mirrors, AM/FM Stereo Radio w/Seek-Scan and Digital Clock w/Extended Range Sound System, Aluminum Wheels, 3.1 Liter V6 Eng, 3-Speed Automatic Trans, Intermittent Wipers, LH Remote, RH Manual Sport Mirrors, Dual Reclining Seats, Power Brakes, Auxiliary Lighting, Deluxe Trunk Decor, P205/70 R15 B/W Tires, Cloth Bench Seat and Rear Spoiler). (Refer Latest Update Section for Custom Ordering Options.)

## REGIONALIZED OPTIONS

ADDITIONAL OPTIONS MAY BE ORDERED FROM THIS LISTING ONLY

|        |   |           |  |
|--------|---|-----------|--|
| N.C.   | <b>ENGINE (Must Order)</b>  | V.P.S.    | UM6 Electronically Tuned AM/FM Stereo Radio w/Seek-Scan, Stereo Cassette Tape and Digital Clock w/Extended Range Sound System (Incl w/Group WZA2)      |
|        | LH0 3.1 Liter MFI V6  |           |  |
| 200.00 | <b>TRANSMISSION (Must Order One)</b>  |           |  |
|        | MX0 4-Speed Automatic   |           |  |
| N.C.   | MX1 3-Speed Automatic   |           |  |
|        | <b>EMISSION (Must Order One)</b>  | V.P.S.    | UU8 Delco/Bose System, Electronically Tuned AM/FM Stereo Radio w/Seek-Scan, Stereo Cassette Tape and Digital Clock (N/A Bench Seat) (N/A w/Group WZAB) |
| N.C.   | NA5 Standard Emissions  |           |  |
| 100.00 | YF5 California Emissions  |           |  |
|        | <b>TIRES</b>  |           |  |
| N.C.   | ---- P205/70 R15 B/W (Radial) (Base)  |           |  |
| 112.00 | QPE P215/60 R16 B/W (Radial) (Reqs NW0 Wheels)  |           |  |
|        | <b>WHEELS</b>   | N.C.      | <b>INTERIOR TRIM</b>   |
| N.C.   | --- 15" Aluminum Wheel (Base)   | 299.00    | C**1 Cloth Bench   |
| N.C.   | NW0 16" Aluminum Wheel (Reqs QPE Tires)   | 249.00    | F**2 Custom Cloth Bucket   |
|        | <b>CLIMATE CONTROL</b>  | N.C.      | F**3 Custom Cloth 60/40  |
|        | (Note: One of the Following Defogger Options must be Specified)   | 210.00    | <b>ADDITIONAL OPTIONS</b>  |
| 170.00 | C49 Defogger, Rear Window: Electric   |           | VK3 License Plate Bracket, Front   |
| N.C.   | R9W Defogger, Rear Window not Desired   | 250.00    | AU3 Power Door Lock System (Incl w/Group WZA2) (1WN27 Model)   |
|        | <b>RADIO EQUIPMENT</b>  |           | AU3 Power Door Lock System (Incl w/Group WZA2) (1WN69 Model)   |
| V.P.S. | ---- Electronically Tuned AM/FM Stereo Radio w/Seek-Scan and Digital Clock w/Extended Range Sound System (Base) | 305.00    | WG1 Power Seat (Driver's Side Only) (N/A Bench Seat) (1WN69 Only)  |
|        |   | N.C.      | R8T Priced Order Acknowledgement   |
|        |   | (-128.00) | D58 Rear Spoiler not Desired   |

REVISED: 2-25-91

1991 ORDER GUIDE

LUMINA  
Page 5

Prices Shown Are Manufacturer's Suggested Retail Prices (MSRP) At The Time Of Publication. These Prices Are To Be Used Only As An Aid To Inventory Management Since MSRP Figures Change Periodically. The Vehicle Prices Schedule Is The Official Pricing Documentation Of Chevrolet Motor Division And Should Be Used In Discussing Vehicle Prices With Potential Buyers. The Model Prices Shown In The Order Guide Include The Destination Freight Charges.



# LUMINA COUPE AND SEDAN

## COLOR AND TRIM SELECTION

PLEASE NOTE: The Exterior Paint and Interior Trim Combinations Shown Below are the Only Combinations that are Available

| Interior Trim Color |                    | Dk Blue | Lt Brown | Gray | Garnet Red |
|---------------------|--------------------|---------|----------|------|------------|
| MODEL               | SEAT TYPE          |         |          |      |            |
| 1WL69               | Cloth Bench        | CDD1    | CEE1     | CQQ1 | CFF1       |
|                     | Cloth 60/40        | CDD3    | CEE3     | CQQ3 | CFF3       |
| 1WL27               | Custom Cloth 60/40 | FDD3    | FEE3     | FQQ3 | FFF3       |

## SOLID PAINT APPLICATION

| Exterior Paint Color     | Color Code 1 | Color Code 2 | Dk Blue | Lt Brown | Gray | Garnet Red |
|--------------------------|--------------|--------------|---------|----------|------|------------|
| Beige, Lt                | 57           | 57           |         | x        |      |            |
| Black                    | 41           | 41           |         |          | x    | x          |
| Blue, Lt Sapphire (Met)  | 22           | 22           | x       |          |      |            |
| Blue, Med Sapphire (Met) | 27           | 27           | x       |          | x    | x          |
| Gray, Med (Met)          | 85           | 85           | x       |          | x    | x          |
| Red, Med Garnet (Met)    | 72           | 72           |         |          | x    | x          |
| Silver (Met)             | 13           | 13           | x       |          | x    | x          |
| White                    | 40           | 40           | x       | x        | x    | x          |

## POWER TEAMS

| ENGINE OPTION CONDITION       | FINAL DRIVE RATIO |      |      |
|-------------------------------|-------------------|------|------|
|                               | 2.84              | 3.18 | 3.33 |
| WITH NA5 STANDARD EMISSIONS   |                   |      |      |
| LR8 MX1                       | ----              | Std  | ---- |
| LH0 MX1                       | Std               | ---- | ---- |
| MX0                           | ----              | ---- | Std  |
| WITH YF5 CALIFORNIA EMISSIONS |                   |      |      |
| LR8 MX1                       | ----              | Std  | ---- |
| LH0 MX1                       | Std               | ---- | ---- |
| MX0                           | ----              | ---- | Std  |

# LUMINA COUPE AND SEDAN

13,175.00 **Model 1WL27 Lumina Coupe**  
 13,375.00 **Model 1WL69 Lumina Sedan**

## PREFERRED VEHICLE

MUST ORDER ONE GROUP - NO DELETIONS ALLOWED

|           |  | WLA1 | WLA2 | WLA3 |
|-----------|--|------|------|------|
| 1020.00   | <b>Preferred Equipment Group 1</b>                         |      |      |      |
| (-200.00) | <b>Preferred Equipment Group 1 Savings (1WL27)</b>         |      |      |      |
| (-500.00) | <b>Preferred Equipment Group 1 Savings (1WL69)</b>         |      |      |      |
|           | Air Conditioning   | x    | x    | x    |
|           | Floor Mats, Color-Keyed Front and Rear                     | x    | x    | x    |
|           | Steering Wheel, Comfortilt                                 | x    | x    | x    |
| 1,390.00  | <b>Preferred Equipment Group 2</b>                         |      |      |      |
| 1,275.00  | <b>Preferred Equipment Group 2 (w/o V56 Carrier)</b>       |      |      |      |
| (-400.00) | <b>Preferred Equipment Group 2 Savings (1WL27)</b>         |      |      |      |
| (-700.00) | <b>Preferred Equipment Group 2 Savings (1WL69)</b>         |      |      |      |
|           | Cargo Retaining Net, Luggage Area                          |      | x    | x    |
|           | *Carrier, Deck-Lid Black                                   |      | x    | x    |
|           | Speed Control: Electronic, with Resume Speed               |      | x    | x    |
| 1,955.00  | <b>Preferred Equipment Group 3 (1WL27)</b>                 |      |      |      |
| 2,060.00  | <b>Preferred Equipment Group 3 (1WL69)</b>                 |      |      |      |
| 1,840.00  | <b>Preferred Equipment Group 3 (1WL27 w/o V56 Carrier)</b> |      |      |      |
| 1,945.00  | <b>Preferred Equipment Group 3 (1WL69 w/o V56 Carrier)</b> |      |      |      |
| (-600.00) | <b>Preferred Equipment Group 3 Savings (1WL27)</b>         |      |      |      |
| (-800.00) | <b>Preferred Equipment Group 3 Savings (1WL69)</b>         |      |      |      |
|           | Mirrors: Sport, Twin Remote                                |      |      | x    |
|           | Power Door Locks   |      |      | x    |
|           | Power Trunk Opener   |      |      | x    |
|           | Power Windows  |      |      | x    |

\*V56 Deck-Lid Carrier May Be Deleted.

Base Vehicles may be ordered by specifying Preferred Equipment Group Code WLAB (Incls Tinted Glass, Dual Horns, LH and RH Visor Vanity Mirrors, AM/FM Stereo Radio w/Seek-Scan and Digital Clock w/Extended Range Sound System, Deluxe Wheel Covers, 2.5 Liter EFI L4 Eng, 3-Speed Automatic Trans, Intermittent Wipers, LH Remote, RH Manual Sport Mirrors, Dual Reclining Seats, Power Brakes, Auxiliary Lighting, Deluxe Trunk Decor, Cloth Bench Seat and P195/75 R14 B/W Tires). (Refer Latest Update Section for Custom Ordering Options.)

## REGIONALIZED OPTIONS

ADDITIONAL OPTIONS MAY BE ORDERED FROM THIS LISTING ONLY

|        |   |        |   |  |
|--------|---|--------|---|--|
| N.C.   | <b>ENGINE (Must Order One)</b>  | V.P.S. | UM6   | Electronically Tuned AM/FM Stereo Radio w/Seek-Scan, Stereo  |
| 660.00 | LR8 2.5 Liter EFI L4  |        |   | Cassette Tape and Digital Clock w/Extended Range Sound System  |
|        | LH0 3.1 Liter MFI V6 (Reqs C67 Air)   |        |   |  |
| N.C.   | <b>TRANSMISSION (Must Order One)</b>  | V.P.S. | UU8   | Delco/Bose System, Electronically Tuned AM/FM Stereo Radio w/Seek-Scan, Stereo Cassette Tape and Digital Clock (N/A Bench Seat) (N/A w/Group WLAB or WLA1) |
| 200.00 | MX1 3-Speed Automatic   |        |   |  |
|        | MX0 4-Speed Automatic (Reqs LH0 Eng)  |        |   |  |
| N.C.   | <b>EMISSION (Must Order One)</b>  |        |   |  |
| 100.00 | NA5 Standard Emissions  |        |   |  |
|        | YF5 California Emissions  |        |   |  |
| N.C.   | <b>TIRES</b>  | N.C.   | <b>INTERIOR TRIM</b>  |  |
| 72.00  | ---- P195/75 R14 B/W (Radial) (Base)  | 159.00 | C**1 Cloth Bench  |  |
|        | QMX P195/75 R14 W/S (Radial)  | 199.00 | C**3 Cloth 60/40  |  |
| N.C.   | <b>WHEELS</b>   |        | F**3 Custom Cloth 60/40   |  |
| N.C.   | --- 14" Deluxe Wheel Covers (Base)  | 50.00  | <b>ADDITIONAL OPTIONS</b>   |  |
| N.C.   | P02 14" Sport Wheel Covers  |        | D09 Arm Rest, Center with Storage Compartment (N/A Bench Seat)    |  |
| 830.00 | <b>CLIMATE CONTROL</b>  | 115.00 | V56 Carrier, Deck Lid Black (Incl w/Groups WLA2 and WLA3)         |  |
|        | C67 Air Conditioning (Incl w/Groups WLA1, WLA2 and WLA3)  | N.C.   | VK3 License Plate Bracket, Front                                  |  |
|        | <b>(Note: One of the Following Defogger Options must be Specified)</b>  | 210.00 | AU3 Power Door Lock System (Incl w/ Group WLA3) (1WL27 Model)     |  |
| 170.00 | C49 Defogger, Rear Window: Electric   | 250.00 | AU3 Power Door Lock System (Incl w/Group WLA3) (1WL27 Model)      |  |
| N.C.   | R9W Defogger, Rear Window not Desired   | 305.00 | WG1 Power Seat (Driver's Side Only) (N/A Bench Seat) (1WL69 Only) |  |
| V.P.S. | <b>RADIO EQUIPMENT</b>  | N.C.   | R8T Priced Order Acknowledgement                                  |  |
|        | ---- Electronically Tuned AM/FM Stereo Radio w/Seek-Scan and Digital Clock w/Extended Range Sound System (Base) |        |   |  |

REVISED: 2-25-91

1991 ORDER GUIDE

LUMINA  
Page 7

Prices Shown Are Manufacturer's Suggested Retail Prices (MSRP) At The Time Of Publication. These Prices Are To Be Used Only As An Aid To Inventory Management Since MSRP Figures Change Periodically. The Vehicle Prices Schedule Is The Official Pricing Documentation Of Chevrolet Motor Division And Should Be Used In Discussing Vehicle Prices With Potential Buyers. The Model Prices Shown In The Order Guide Include The Destination Freight Charges.

---

# NOTES

---

# MANUFACTURERS MOTOR VEHICLE SPECIFICATIONS

METRIC (U.S. Customary)

# 1991

|   |                                   |                                       |
|---|-----------------------------------|---------------------------------------|
| <b>Manufacturer</b><br>CHEVROLET MOTOR DIVISION<br>GENERAL MOTORS CORPORATION   | <b>Vehicle Line</b><br><br>LUMINA |                                       |
| <b>Mailing Address</b><br>CHEVROLET-PONTIAC-CANADA GROUP<br>ENGINEERING CENTER<br>GENERAL MOTORS CORPORATION<br>30003 VAN DYKE<br>WARREN, MICHIGAN 48090-9060 | <b>Issued</b><br><br>JUNE, 1990   | <b>Revised</b><br><br>SEPTEMBER, 1990 |

Direct questions concerning these specifications to the manufacturer listed above.

The information contained herein is prepared, distributed by, and is solely the responsibility of the vehicle manufacturing company to whose products it relates. This specification form was developed by the vehicle manufacturing companies under the auspices of the Motor Vehicle Manufacturers Association of the United States, Inc.

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



Motor Vehicle Manufacturers Association  
of the United States, Inc.

Blank Forms Provided by Technical Affairs Division



# MVMA Specifications

METRIC (U.S. Customary)

## Table of Contents

---

|   |       |   |   |  |
|---|-------|---|---|--|
| ○ | 1     | Vehicle Models/Origin                         | ○ | Indicates Format Change From Previous Year |
|   | 2     | Power Teams                                   |   |  |
| ○ | 3     | Engine  |   |  |
|   | 4     | Lubrication System                            |   |  |
|   | 4     | Diesel Information                            |   |  |
|   | 5     | Cooling System                                |   |  |
|   | 6     | Fuel System                                   |   |  |
|   | 7     | Vehicle Emission Control                      |   |  |
|   | 7     | Exhaust System                                |   |  |
|   | 8-10  | Transmission, Axles and Shafts                |   |  |
|   | 11    | Suspension                                    |   |  |
|   | 12-13 | Brakes, Tires and Wheels                      |   |  |
|   | 14    | Steering                                      |   |  |
| ○ | 15-16 | Electrical                                    |   |  |
|   | 17    | Body — Miscellaneous Information              |   |  |
|   | 18    | Restraint System                              |   |  |
|   | 18    | Glass   |   |  |
|   | 18    | Headlamps                                     |   |  |
|   | 18    | Frame   |   |  |
|   | 19-20 | Convenience Equipment                         |   |  |
| ○ | 20    | Trailer Towing                                |   |  |
|   | 21-23 | Vehicle Dimensions                            |   |  |
|   | 24    | Vehicle Fiducial Marks                        |   |  |
| ○ | 25    | Vehicle Mass (Weight)                         |   |  |
|   | 26    | Optional Equipment Differential Mass (Weight) |   |  |
|   | 27-33 | Vehicle Dimensions Definitions - Key Sheets   |   |  |
| ○ | 34    | Index   |   |  |

---

### NOTE:

1. This form uses both SI metric units and U.S. Customary units. The metric unit of measure is presented first, and the U.S. Customary unit follows in parentheses.
2. UNLESS OTHERWISE INDICATED:
  - a. Specifications apply to standard models without optional equipment. Significant deviations are noted.
  - b. Nominal design dimensions are used throughout these specifications.
  - c. All linear dimensions are in millimeters (inches), and all mass (weight) specs. are in kilograms (pounds).
3. The General Specifications herein are those in effect at date of compilation and are subject to change without notice or incurring obligation by the manufacturer.
4. Additional Vehicle Dimensions (based in part on SAE J1100 "Motor Vehicle Dimensions") may be available from the manufacturer.

FORM MVMA-91



# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

METRIC (U.S. Customary)

## Vehicle Origin

|  |                                |
|--|--------------------------------|
| Design & development (company)                 | Chevrolet-Pontiac-GM of Canada |
| Where built (country)                          | U.S.A.                         |
| Authorized U.S. Sales marketing representative | Chevrolet Motor Division       |

## ○ Vehicle Models

| Model Description & Drive (FWD/RWD/AWD/4WD)* | Make, Vehicle Models, Series, Body Type (Mfg's Model Code) | No. of Designated Seating Positions (Front/Rear) | Max. Trunk/Cargo Load-Kilograms (Pounds) | EPA Fuel Economy (City/Hwy) |
|--|--|--|--|-----------------------------|
| <b>LUMINA</b>                                |  |  |  |                             |
| 2-Door Notchback Coupe (FWD)                 | 1WL27  | 6 (3/3)  |  | 21/28                       |
| 4-Door Notchback Sedan (FWD)                 | 1WL69  | 6 (3/3)  |  | 21/28                       |
| <b>LUMINA EURO</b>                           |  |  |  |                             |
| 2-Door Notchback Coupe (FWD)                 | 1WN27  | 6 (3/3)  |  | 19/27                       |
| 4-Door Notchback Sedan (FWD)                 | 1WN69  | 6 (3/3)  |  | 19/27                       |
|  |  | 5 (2/3) Opt.                                     |  |                             |
|  |  | 5 (2/3) Opt.                                     |  |                             |
| <b>LUMINA Z34</b>                            |  |  |  |                             |
| 2-Door Notchback Coupe (FWD)                 | 1WP27  | 5 (2/3)  |  |                             |

\* FWD - Front Wheel Drive RWD - Rear Wheel Drive AWD - All Wheel Drive 4WD - Four Wheel Drive



# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary) Power Teams

SAE J1349 Net bhp (brake hrspwr) and Net Torque corrected to 77 deg. F / 25 deg. C and 29.61 in. Hg/100 kPA atmos. press

|  |                                      | A                                    | B                                | C                                | D                                |                  |
|--|--------------------------------------|--------------------------------------|----------------------------------|----------------------------------|----------------------------------|------------------|
| <b>E<br/>N<br/>G<br/>I<br/>N<br/>E</b> | Engine Code                          | LR8                                  | LHO                              | LHO                              | LQ1                              |                  |
|  | Displacement<br>Liters (cu. in.)     | 2.5 (151)                            | 3.1 (191)                        | 3.1 (191)                        | 3.4 (207)                        |                  |
|  | Induction system<br>(Fi, Carb, etc.) | Electronic Fuel<br>Injection         | Multi-Port<br>Fuel Injection     | Multi-Port<br>Fuel Injection     | Multi-Port<br>Fuel Injection     |                  |
|  | Compression<br>ratio                 | 8.3:1                                | 8.8:1                            | 8.8:1                            | 9.25:1                           |                  |
|  | SAE<br>Net<br>at<br>RPM              | Power<br>kW (bhp)                    | 78 (105) @ 4800                  | 104 (140) @ 4400                 | 104 (140) @ 4400                 | 149 (200) @ 5000 |
|  |                                      | Torque<br>Newton meters<br>(lb. ft.) | 183 (135) @ 3200                 | 251 (185) @ 3200                 | 251 (140) @ 4400                 | 291 (215) @ 4000 |
| Exhaust<br>Single, dual                |                                      | Single                               | Single                           | Single                           | Dual                             |                  |
| <b>T<br/>R<br/>A<br/>N<br/>S</b>       | Transmission/<br>Transaxle           | MD9 Auto<br>Transaxle<br>3-Speed     | ME9 Auto<br>Transaxle<br>4-Speed | MD9 Auto<br>Transaxle<br>3-Speed | M13 Auto<br>Transaxle<br>4-Speed |                  |
|  | Axle Ratio<br>(std. first)           | 3.18                                 | 3.33                             | 2.84                             | 3.43                             |                  |

### Series Availability

### Power Teams (A - B - C - D)

| Model                 | Code  | Standard | Optional |
|-----------------------|-------|----------|----------|
| <b>LUMINA</b>         |       |          |          |
| 2-Dr. Notchback Coupe | 1WL27 | A        | B, C     |
| 4-Dr. Notchback Sedan | 1WL69 | A        | B, C     |
| <b>LUMINA EURO</b>    |       |          |          |
| 2-Dr. Notchback Coupe | 1WN27 | C        | B        |
| 4-Dr. Notchback Sedan | 1WN69 | C        | B        |
| <b>LUMINA Z34</b>     |       |          |          |
| 2-Dr. Notchback Coupe | 1WP27 | E        | D        |
|                       |       |          |          |
|                       |       |          |          |
|                       |       |          |          |
|                       |       |          |          |
|                       |       |          |          |
|                       |       |          |          |
|                       |       |          |          |
|                       |       |          |          |
|                       |       |          |          |



# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

Engine Description  
 Engine Code

2.5 LITER L4 (151 CID)  
 ELECTRONIC FUEL INJECTION RPO LR8

### ENGINE - GENERAL

|  |   |  |
|--|---|--|
| Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.) |   | Inline, Front, Transverse, OHV                               |
| Manufacturer   |   | General Motors Engine Division                               |
| No. of cylinders   |   | 4  |
| Bore   |   | 101.646 mm (4.0018 in.)                                      |
| Stroke   |   | 76.20 mm (3.000 in.)   |
| Bore spacing (C/L to C/L)  |   | 111.76 mm (4.40 in.)   |
| Cyl. block matl & mass kg(lbs.) (machined)   |   | Cast Iron, 48.18 (106.21)                                    |
| Cylinder block deck height   |   | 236.10 mm (9.295 in.)  |
| Cylinder block length  |   | 494.8 mm (19.480 in.)  |
| Deck clearance (minimum) (above or below block)  |   | .9144 mm (.036 in.) Below                                    |
| Cyl. head material & mass kg (lbs.)  |   | Cast Iron, 21.82 (48.1)                                      |
| Cylinder head volume cu. cm. (cu. in.)   |   | 45.62 (2.78)   |
| Cylinder liner material  |   | Not Applicable   |
| Head gasket thickness (compressed)   |   | 1.22 mm (.048 in.)   |
| Minimum combustion chamber total volume cu. cm. (cu. in.)  |   | 50.2 (3.06)  |
| Cyl. no. system (front to rear)*   | L. Bank   | 1-2-3-4  |
|  | R. Bank   | -  |
| Firing order   |   | 1-3-4-2  |
| Intake manifold matl & mass kg(lbs.)**   |   | Aluminum 9.0 (19.84)   |
| Exh. manifold matl & mass kg(lbs.)**   |   | Stainless Steel, 1.85 (4.08)                                 |
| Knock sensor (yes/no)  |   | No   |
| Fuel required unleaded, diesel, etc.   |   | Unleaded   |
| Fuel antiknock index (R + M) / 2   |   | 87   |
| Engine mounts  | Quantity  | 3  |
|  | Matl and type (elastomeric, hydroelastic, hydraulic damper, etc.) | 1-Hydraulic: 1-Elastomeric: 1-Torque Strut                   |
|  | Added isolation (sub-frame, crossmember, etc.)                    | Isolated (Sub-frame) Supporting The Right & Left Hand Mounts |
| Total dressed engine mass (wt) dry***  |   | 169.7 kg. (370 lbs.)   |

### Engine - Pistons

|  |                          |
|--|--------------------------|
| Material & mass, g (weight, oz.) - piston only | Aluminum Alloy, 600 (21) |
|--|--------------------------|

### Engine Camshaft

|                                   |             |  |
|-----------------------------------|-------------|--|
| Location                          |             | Cylinder Block                         |
| Material & mass kg (weight, lbs.) |             | Austempered Ductile Iron, 3.452 (7.61) |
| Drive type                        | Chain/belt  | Chain                                  |
|                                   | Width/pitch | 19.1 / 9.525 (.75 / .375) 56 Pitches   |

\*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:

All those items necessary to make the engine a complete ready-to-run unit.

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 issued 6-90 Revised(\*) 9-90

METRIC (U.S. Customary)

Engine Description  
 Engine Code

3.1 LITER V6 (191 CID)  
 MULTI-PORT FUEL INJECTION RPO LHO

## ENGINE - GENERAL

|  |   |  |
|--|---|--|
| Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.) | 60 deg. V, Front, Transverse, OHV   |  |
| Manufacturer   | General Motors Engine Division  |  |
| No. of cylinders   | 6   |  |
| Bore   | 89mm (3.503)  |  |
| Stroke   | 84mm (3.307 in.)  |  |
| Bore spacing (C/L to C/L)  | 111.76mm (4.5 in.)  |  |
| Cyl block matl & mass kg(lbs.)(machined)   | Cast Iron, 53.12 (117)  |  |
| Cylinder block deck height   | 224.0mm (9.0 in.)   |  |
| Cylinder block length  | 435.5mm (17.4 in.)  |  |
| Deck clearance (minimum) (above or below block)  | 0.12 mm (.005 in.) Below Block, Nominal   |  |
| Cyl. head material & mass kg(lbs.)   | Aluminum, 5.30 (11.7)   |  |
| Cylinder head volume cu. cm. (cu. in.)   | 28.0 (1.71)   |  |
| Cylinder liner material  | Not Applicable  |  |
| Head gasket thickness (compressed)   | 1.62mm (.062 in.)   |  |
| Minimum combustion chamber total volume cu. cm. (cu. in.)  | 27.9 (1.70)   |  |
| Cyl. no. system (front to rear)*   | L. Bank   | 2-4-6  |
|  | R. Bank   | 1-3-5  |
| Firing order   | 1-2-3-4-5-6   |  |
| Intake manifold matl & mass kg(lbs.)**   | Inlet Plenum - Aluminum Alloy, 3.5 (7.9)  |  |
|  | Inlet Manifold - Aluminum Alloy, 5.6 (12.4)   |  |
| Exh. manifold matl & mass kg(lbs.)**   | Nodular Cast Iron, Wt. Of Manifold, Fire Wall Side 3.76 (8.283);<br>Wt. Of Other Manifold, 2.63 (5.786) |  |
| Knock sensor (yes/no)  | Yes   |  |
| Fuel required unleaded, diesel, etc.   | Unleaded  |  |
| Fuel antiknock index (R + M) / 2   | 87  |  |
| Engine mounts  | Quantity  | 4  |
|  | Matl and type (elastomeric, hydroelastic, hydraulic damper, etc.)                                       | 1-Hydraulic; 1-Elastomeric; 2-Torque Struts                  |
|  | Added isolation (sub-frame, crossmember, etc.)  | Isolated (Sub-frame) Supporting The Right & Left Hand Mounts |
| Total dressed engine mass (wt) dry***  | 171.91 kg. (379 lbs.)   |  |

## Engine - Pistons

|  |                            |
|--|----------------------------|
| Material & mass, g (weight, oz.) - piston only | Aluminum Alloy, 365 (12.8) |
|--|----------------------------|

## Engine Camshaft

|                                   |                         |                                      |
|-----------------------------------|-------------------------|--------------------------------------|
| Location                          | Cylinder Block          |                                      |
| Material & mass kg (weight, lbs.) | Cast Iron, 3.098 (6.83) |                                      |
| Drive type                        | Chain/belt              | Chain                                |
|                                   | Width/pitch             | 18.52 x 9.525 mm (0.729 x 0.375 in.) |

\*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:

All those items necessary to make the engine a complete ready-to-run unit.

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

Engine Description  
 Engine Code

3.4 LITER V6 (207 CID)  
 MULTI-PORT FUEL INJECTION RPO LQ1

### ENGINE - GENERAL

|  |   |   |
|--|---|---|
| Type & description (inline, V, angle, flat, location, front, mid, rear, transverse, longitudinal, sohc, dohc, ohv, hemi, wedge, pre-chamber, etc.) |   | 60 deg., V6, Front, Transverse, DOHC  |
| Manufacturer   |   | General Motors Engine Division  |
| No. of cylinders   |   | 6   |
| Bore   |   | 92.0mm (3.622 in.)  |
| Stroke   |   | 84.0mm (3.307 in.)  |
| Bore spacing (C/L to C/L)  |   | 111.76mm (4.4 in.)  |
| Cyl. block matl & mass kg (lbs.) (machined)  |   | Cast Iron, 52.7 kg. (116.2 lbs.)  |
| Cylinder block deck height   |   | 224.0mm (8.82 in.)  |
| Cylinder block length  |   | 435.5mm (17.1 in.)  |
| Deck clearance (minimum) (above or below block)  |   | 0.28mm (.011 in.), Above Block, Nominal   |
| Cyl. head material & mass kg (lbs.)  |   | Aluminum, 7.7 kg. (17.0 lbs.)   |
| Cylinder head volume cu. cm. (cu. in.)   |   | 52.8 (3.2)  |
| Cylinder liner material  |   | Not Applicable  |
| Head gasket thickness (compressed)   |   | 1.6mm (0.063 in.)   |
| Minimum combustion chamber total volume cu. cm. (cu. in.)  |   | 67.7 (4.13)   |
| Cyl. no. system (front to rear)*   | L. Bank   | 2-4-6   |
|  | R. Bank   | 1-3-5   |
| Firing order   |   | 1-2-3-4-5-6   |
| Intake manifold matl & mass kg (lbs.)**  |   | Upper - Aluminum Alloy, 7.9 (17.4); Lower - Aluminum Alloy, 3.2 (7.1)           |
| Exh. manifold matl & mass kg (lbs.)**  |   | High Silicon Molybdenum Nod. Iron; 4.0 (8.82), Firewall side; 2.8 (6.17), Other |
| Knock sensor (yes / no)  |   | Yes   |
| Fuel required unleaded, diesel, etc.   |   | Unleaded  |
| Fuel antiknock index (R + M) / 2   |   | 87  |
| Engine mounts  | Quantity  | 4   |
|  | Matl and type (elastomeric, hydroelastic, hydraulic damper, etc.) | 2 - Elastomeric; 1 - Hydraulic; 1 - Torque Strut                                |
|  | Added isolation (sub-frame, crossmember, etc.)                    | Isolated (Sub-frame) Supporting The Right & Left Hand Mounts                    |
| Total dressed engine mass (wt) dry***  |   | 204.35 kg. (450.5 lbs.), Auto. 215.35 kg. (474.8 lbs.), Manual                  |

### Engine - Pistons

|  |                            |
|--|----------------------------|
| Material & mass, g (weight, oz.) - piston only | Aluminum Alloy, 414 (14.6) |
|--|----------------------------|

### Engine Camshaft

|                                   |             |  |
|-----------------------------------|-------------|--|
| Location                          |             | (4) OHC In Carrier   |
| Material & mass kg (weight, lbs.) |             | Cast Iron - Left Bank Intake And Exhaust, 4.54 (10.0)<br>Cast Iron - Right Bank Intake And Exhaust, 4.31 (9.5) |
| Drive type                        | Chain/belt  | Belt And Chain   |
|                                   | Width/pitch | Belt, 34.0/9.53 mm (1.34/0.375 in.) Chain, 17.5/9.53mm (0.689/0.375 in.)                                       |

\*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:

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 2.5 LITER L4 (151 CID)            |
| Engine Code        | ELECTRONIC FUEL INJECTION RPO LR8 |

### Engine - Valve System

|                                      |                          |   |
|--------------------------------------|--------------------------|---|
| Hydraulic lifters (std., opt., n.a.) | Standard                 |   |
| Valves                               | Number intake/exhaust    | 4/4   |
|                                      | Head O.D. intake/exhaust | I = 43.82/43.56 mm (1.75/1.74 in.) E = 38.23/37.97 mm (1.53/1.52 in.) |

### Engine - Connecting Rods

|                                       |   |
|---------------------------------------|---|
| Material & mass kg., (weight, lbs.)*  | Alum Steel, .6211 +/- .012 Kg (1.37 +/- .026 lbs) |
| Length(axes centerline to centerline) | 153.67 mm (6.05 in.)                              |

### Engine - Crankshaft

|  |                            |                           |
|--|----------------------------|---------------------------|
| Material & mass kg., (weight, lbs.)*         | Nodular Iron, 17.73 (39.0) |                           |
| End thrust taken by bearing (no.)            | 5                          |                           |
| Length & number of main bearings             | ** 5 Bearings              |                           |
| Seal (material, one, two piece design, etc.) | Front                      | One Piece Fluoroelastomer |
|  | Rear                       | One Piece Fluoroelastomer |

### Engine - Lubrication System

|  |                       |
|--|-----------------------|
| Normal oil pressure kPa(psi) @ eng rpm         | 259.0 (37.5) @ 2000   |
| Type oil intake (floating, stationary)         | Stationary            |
| Oil filter sys. (full flow, part, other)       | Full Flow And in Sump |
| Capacity of c/case, less filter-refill-L (qt.) | 3.8 (4.0)             |

### Engine - Diesel Information

(NOT APPLICABLE)

|   |                           |  |
|---|---------------------------|--|
| Diesel engine manufacturer                                  |                           |  |
| Glow plug, current drain at 0 deg. F                        |                           |  |
| Injector Nozzle   | Type                      |  |
|   | Opening pressure kPa(psi) |  |
| Pre-chamber design  |                           |  |
| Fuel injection 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

(NOT APPLICABLE)

|                              |  |
|------------------------------|--|
| Turbo charger - manufacturer |  |
| Super charger - manufacturer |  |
| Intercooler                  |  |

\* Finished State

\*\* Standard Measurement For Width Only:

- # 1, 2, 3, 4 = 20.24 - 20.49 mm (.797 - .807 in.)
- # 5 = 25.55 - 25.63 mm (1.022 - 1.025 in.)

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 3.1 LITER V6 (191 CID)            |
| Engine Code        | MULTI-PORT FUEL INJECTION RPO LHO |

### Engine - Valve System

|                                      |                          |   |
|--------------------------------------|--------------------------|---|
| Hydraulic lifters (std., opt., n.a.) | Standard                 |   |
| Valves                               | Number intake/exhaust    | 6/6                                       |
|                                      | Head O.D. intake/exhaust | 43.64 mm (1.72 in.) / 36.20 mm (1.43 in.) |

### Engine - Connecting Rods

|                                       |  |
|---------------------------------------|--|
| Material & mass kg., (weight, lbs.)*  | Forged Steel, .592 (1.31) Full Assembly. |
| Length(axis centerline to centerline) | 144.78 mm (5.79 in.)                     |

### Engine - Crankshaft

|  |                                |                        |
|--|--------------------------------|------------------------|
| Material & mass kg., (weight, lbs.)*         | Nodular Cast Iron, 17.9 (39.5) |                        |
| End thrust taken by bearing (no.)            | 3                              |                        |
| Length & number of main bearings             | ** 4 Bearings                  |                        |
| Seal (material, one, two piece design, etc.) | Front                          | Viton/Steel, One Piece |
|  | Rear                           | Viton/Steel, One Piece |

### Engine - Lubrication System

|  |                        |
|--|------------------------|
| Normal oil pressure kPa(PSI) @ eng rpm         | 345-450 (50-65) @ 2400 |
| Type oil intake (floating, stationary)         | Stationary             |
| Oil filter sys. (full flow, part, other)       | Flow Thru - Full Flow  |
| Capacity of c/case, less filter-refill-L (qt.) | 3.8 (4.0)              |

### Engine - Diesel Information

(NOT APPLICABLE)

|   |                           |  |
|---|---------------------------|--|
| Diesel engine manufacturer                                  |                           |  |
| Glow plug, current drain at 0 deg. F                        |                           |  |
| Injector Nozzle   | Type                      |  |
|   | Opening pressure kPa(PSI) |  |
| Pre-chamber design  |                           |  |
| Fuel injection 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

(NOT APPLICABLE)

|                              |  |
|------------------------------|--|
| Turbo charger - manufacturer |  |
| Super charger - manufacturer |  |
| Intercooler                  |  |

\* Finished State

\*\* Bearing Overall Length:

For 3.1L V6; #1 = 24.8 mm (0.976 in.) #2 = 18.7 mm (0.736 in.)  
 #3 = 23.9 mm (0.940 in.), Upper #4 = 23.9 mm (0.940 in.), Upper  
 18.7 mm (0.736 in.), Lower 18.7 mm (0.736 in.), Lower

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*)           

## METRIC (U.S. Customary)

Engine Description  
 Engine Code

3.4 LITER V6 (207 CID)  
 MULTI-PORT FUEL INJECTION RPO LQ1

### Engine - Valve System

|                                      |                          |
|--------------------------------------|--------------------------|
| Hydraulic lifters (std., opt., n.a.) | Standard                 |
| Valves                               | Number intake/exhaust    |
|                                      | Head O.D. intake/exhaust |

12/12  
 36.0mm (1.41 in.) / 32.0mm (1.26 in.)

### Engine - Connecting Rods

|  |                          |
|--|--------------------------|
| Material & mass kg., (weight, lbs.)*   | Forged Steel, .592 (1.3) |
| Length (axes centerline to centerline) | 144.78mm (5.7 in.)       |

### Engine - Crankshaft

|  |   |
|--|---|
| Material & mass kg., (weight, lbs.)*         | Nodular Cast Iron, 17.9 (39.4)                          |
| End thrust taken by bearing (no.)            | 3   |
| Length & number of main bearings             | 4 #1 = 4: 24.8mm (.98 in.) / # 2 & 3 = 18.7mm (.74 in.) |
| Seal (material, one, two piece design, etc.) | Front   |
|  | Rear  |

Viton/Steel, One Piece  
 Viton/Steel, One Piece

### Engine - Lubrication System

|  |                                     |
|--|-------------------------------------|
| Normal oil pressure kPa (psi) @ eng rpm        | 275 (40) @ 2,000                    |
| Type oil intake (floating, stationary)         | Stationary                          |
| Oil filter sys. (full flow, part, other)       | Full Flow                           |
| Capacity of c/case, less filter-refill-L (qt.) | 4.73 (5.0), With New Filter         |
|  | 4.26 (4.5), Without Changing Filter |

### Engine - Diesel Information

(NOT APPLICABLE)

|   |                            |
|---|----------------------------|
| Diesel engine manufacturer                                  |                            |
| Glow plug, current drain at 0 deg. F                        |                            |
| Injector Nozzle   | Type                       |
|   | Opening pressure kPa (psi) |
| Pre-chamber design  |                            |
| Fuel injection 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

(NOT APPLICABLE)

|                              |  |
|------------------------------|--|
| Turbo charger - manufacturer |  |
| Super charger - manufacturer |  |
| Intercooler                  |  |

\* Finished State



# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

Engine Description  
 Engine Code

2.5 LITER L4 (151 CID)  
 ELECTRONIC FUEL INJECTION RPO LR8

### Engine - Cooling System

|   |   |   |
|---|---|---|
| Coolant recovery system (std, opt, n.a.)        |   | Standard  |
| Coolant fill location (rad., bottle)            |   | Bottle, Coolant Recovery  |
| Radiator cap relief valve pressure<br>kPa (psi) |   | 89.6 - 103.4 (13 - 15)  |
| Circulation thermostat                          | Type (choke, bypass)                              | Choke   |
|   | Starts to open @ deg's C(F)                       | 90 (195)  |
| Water Pump                                      | Type (centrifugal, other)                         | Centrifugal   |
|   | GPM 1000 pump rpm                                 | 6.1   |
|   | Number of pumps                                   | 1   |
|   | Drive (V-belt, other)                             | Serpentine  |
|   | Bearing type                                      | Ball-Roller   |
|   | Impeller material                                 | Sintered  |
| Housing material                                |   | Aluminum  |
| By-pass recirculation type (inter., ext.)       |   |   |
| Cooling system capacity                         | With heater - L (qt.)                             | 9.3 (9.8)   |
|   | With air conditioner-L(qt.)                       | 9.5 (10.0)  |
|   | Opt. equip. specify-L(qt.)                        |   |
| Water jackets full length of cy(yes,no)         |   | Yes   |
| Water all around cylinder (yes, no)             |   | Yes   |
| Water jackets open at head face (yes,no)        |   | Yes   |
| Radiator core                                   | Std., A/C, HD                                     |   |
|   | Type (cross-flow, etc.)                           | Cross-Flow  |
|   | Construction (fin & tube mechanical, braze, etc.) | High Efficiency Radiator  |
|   | Matl., mass kg (wt., lbs.)                        | Aluminum, AC - 4.24 (9.35); Std. - 3.71 (8.18)  |
|   | Width   | 718mm (28.3 in.)  |
|   | Height  | 382mm (15.0 in.)  |
|   | Thickness   | 23.5mm (0.925 in.)  |
| Fins per inch                                   |   | 3.0mm (.12 in.) - Distance Between Fins   |
| Radiator end tank material                      |   | Plastic   |
| Fan   | Std., elec. opt.                                  | Standard, Electric  |
|   | Number of blades & type (flex, solid, material)   | 5. Solid Plastic  |
|   | Diameter & projected width                        | 343 x 40 mm (13.5 x 1.57 in.)   |
|   | Ratio(fan to crkshft.rev.)                        | Not Applicable  |
|   | Fan cutout type                                   | ECM Controlled  |
|   | Drive type (direct, remote)                       | Direct  |
|   | RPM at idls (elec.)                               | 2100 Primary; 1800 Secondary  |
|   | Motor rating(wattage)(elec.)                      | 150 Std; 150 & 100 A/C  |
|   | Motor switch (type & location/elec.)              | Engine Mounted Coolant Temp. Sensor,<br>A/C Liquid Line Pressure Switch Or Transducer |
|   | Switch point (temp./ pressure/elec.)              | (See Below)   |
| Fan shroud (material)                           |   | Not Available   |

|                      |             |             |                      |             |             |
|----------------------|-------------|-------------|----------------------|-------------|-------------|
| <u>PRIMARY FAN</u>   | <u>ON</u>   | <u>OFF</u>  | <u>SECONDARY FAN</u> | <u>ON</u>   | <u>OFF</u>  |
| A/C Head Pressure or | 200 PSI     | 150 PSI     | A/C Head Pressure or | 250 PSI     | 190 PSI     |
| Engine Coolant       | 223 deg. F. | 216 deg. F. | Engine Coolant       | 244 deg. F. | 237 deg. F. |

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 3.1 LITER V6 (181 CID)            |
| Engine Code        | MULTI-PORT FUEL INJECTION RPO LHO |

### Engine - Cooling System

|   |   |  |                    |                    |
|---|---|--|--------------------|--------------------|
| Coolant recovery system (std., opt., n.a.)      | Standard  |  |                    |                    |
| Coolant fill location (rad., bottle)            | Bottle, Coolant Recovery                          |  |                    |                    |
| Radiator cap relief valve pressure<br>kPa (psi) | 103.4 (15)  |  |                    |                    |
| Circulation thermostat                          | Type (choke, bypass)                              | Bypass   |                    |                    |
|   | Starts to open @ deg's C(F)                       | 90 (195)   |                    |                    |
| Water Pump                                      | Type (centrifugal, other)                         | Centrifugal  |                    |                    |
|   | GPM 1000 pump rpm                                 | 12   |                    |                    |
|   | Number of pumps                                   | 1  |                    |                    |
|   | Drive (V-belt, other)                             | Serpentine   |                    |                    |
|   | Bearing type                                      | Ball-Roller  |                    |                    |
|   | Impeller material                                 | Cast Iron  |                    |                    |
| Housing material                                | Aluminum  |  |                    |                    |
| By-pass recirculation type (inter., ext.)       | External, Bypass                                  |  |                    |                    |
| Cooling system capacity                         | With heater - L (qt.)                             | 11.6 (12.3) Htr. or A/C 4-Spd. Auto.   |                    |                    |
|   | With air conditioner - L (qt.)                    | 12.0 (12.7) Htr. or A/C 3-Spd. Auto.   |                    |                    |
|   | Opt. equip. specify - L (qt.)                     | 12.67 (13.4)   |                    |                    |
| Water jackets full length of cyl (yes, no)      | No  |  |                    |                    |
| Water all around cylinder (yes, no)             | Yes   |  |                    |                    |
| Water jackets open at head face (yes, no)       | Yes   |  |                    |                    |
| Radiator core                                   | Std., A/C, HD                                     | Auto Std.  | Auto A/C 4-Spd.    | Auto A/C 3-Spd.    |
|   | Type (cross-flow, etc.)                           | Cross-Flow   |                    |                    |
|   | Construction (fin & tube mechanical, braze, etc.) | High Efficiency Radiator   |                    |                    |
|   | Matl., mass kg (wt., lbs.)                        | Aluminum, 4.0 (8.82)   | 4.24 (9.37)        | 5.44 (12.0)        |
|   | Width   | 718.3mm (28.3 in.)   | 718.3mm (28.3 in.) | 718.3mm (28.3 in.) |
|   | Height  | 382.4mm (15.0 in.)   | 382.4mm (15.0 in.) | 382.4mm (15.0 in.) |
|   | Thickness   | 23.5mm (0.925 in.)   | 23.5mm (0.925 in.) | 34.0mm (1.34 in.)  |
|   | Fins per inch, Constant                           | 13, 4  | 17, 3              | 20, 3              |
| Radiator end tank material                      | Plastic   |  |                    |                    |
| Fan   | Std. elec., opt.                                  | Electric   |                    |                    |
|   | Number of blades & type (flex, solid, material)   | Standard-5 Flex, Plastic (Opt. Same)   |                    |                    |
|   | Diameter & projected width                        | Standard 343.0 (13.5), Two Fans 343 (13.5)   |                    |                    |
|   | Ratio (fan to crksh.ft.rev.)                      | Not Applicable   |                    |                    |
|   | Fan cutout type                                   | ECM Controlled   |                    |                    |
|   | Drive type (direct, remote)                       | Electric   |                    |                    |
|   | RPM at idle (elec.)                               | 2100 Primary, 1800 Secondary   |                    |                    |
|   | Motor rating (wattage/elec)                       | 150 Std., 150 & 100 A/C  |                    |                    |
|   | Motor switch (type & location/elec.)              | Engine Mounted Coolant Temp. Sensor, A/C Liquid Line Pressure Switch or Transducer |                    |                    |
|   | Switch point (temp./pressure/elec.)               | (See Below)  |                    |                    |
| Fan shroud (material)                           | Not Available                                     |  |                    |                    |

|                                     | <u>ON</u>              | <u>OFF</u>             | <u>SECONDARY FAN</u>                | <u>ON</u>              | <u>OFF</u>             |
|-------------------------------------|------------------------|------------------------|-------------------------------------|------------------------|------------------------|
| A/C Head Pressure or Engine Coolant | 200 PSI<br>223 deg. F. | 150 PSI<br>216 deg. F. | A/C Head Pressure or Engine Coolant | 250 PSI<br>244 deg. F. | 190 PSI<br>237 deg. F. |

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 3.4 LITER V6 (207 CID)            |
| Engine Code        | MULTI-PORT FUEL INJECTION RPO LQ1 |

### Engine - Cooling System

|  |   |  |
|--|---|--|
| Coolant recovery system (std. opt. n.a.)     | Standard  |  |
| Coolant fill location (rad., bottle)         | Bottle, Coolant Recovery                          |  |
| Radiator cap relief valve pressure kPa (psi) | 89.6 - 103.4 (13 - 15)                            |  |
| Circulation thermostat                       | Type (choke, bypass)                              | Bypass                                 |
|  | Starts to open @ deg's C(F)                       | 90 (194)                               |
| Water Pump                                   | Type (centrifugal, other)                         | Centrifugal                            |
|  | GPM 1000 pump rpm                                 | 9.7                                    |
|  | Number of pumps                                   | 1                                      |
|  | Drive (V-belt, other)                             | Serpentine Poly V                      |
|  | Bearing type                                      | Ball Roller                            |
|  | Impeller material                                 | Cast Iron                              |
|  | Housing material                                  | Aluminum                               |
| By-pass recirculation type (inter., ext.)    |   |  |
| Cooling system capacity                      | With heater - L (qt.)                             | A/C Is Standard                        |
|  | With air conditioner-L (qt.)                      | 12.1 (12.8), Auto; 12.4 (13.1), Man.   |
|  | Opt. equip. specify-L (qt.)                       |  |
| Water jackets full length of cyl (yes, no)   | No  |  |
| Water all around cylinder (yes, no)          | Yes   |  |
| Water jackets open at head face (yes, no)    | Yes   |  |
| Radiator core                                | Std., A/C, HD                                     | A/C Is Standard Equipment              |
|  | Type (cross-flow, etc.)                           | Cross-Flow                             |
|  | Construction (fin & tube mechanical, braze, etc.) | High Efficiency Radiator               |
|  | Matl., mass kg (wt., lbs.)                        | Aluminum                               |
|  | Width   | 718mm (28.3 in.)                       |
|  | Height  | 382mm (15.0 in.)                       |
|  | Thickness   | 34mm (1.3 in.)                         |
|  | Fins per inch                                     | 3.0, Constant                          |
| Radiator end tank material                   | Plastic   |  |
| Fan  | Std., elec., opt.                                 | Dual Electric Standard                 |
|  | Number of blades & type (flex, solid, material)   | 5, Solid Plastic                       |
|  | Diameter & projected width                        | 343 x 40mm (13.5 x 1.57 in.)           |
|  | Ratio (fan to crksh ft. rev.)                     | Electric                               |
|  | Fan cutout type                                   | ECM Controlled                         |
|  | Drive type (direct, remote)                       | Electric Direct                        |
|  | RPM at idle (elec.)                               | 2100, Primary; 1800, Secondary         |
|  | Motor rating (wattage/elec.)                      | 240, Primary; 100, Secondary           |
|  | Motor switch (type & location/elec.)              | Coolant Temperature, A/C Head Pressure |
|  | Switch point (temp./ pressure/elec.)              | (See Below)                            |
| Fan shroud (material)                        | Not Available                                     |  |

|                      |             |             |                      |             |            |
|----------------------|-------------|-------------|----------------------|-------------|------------|
| <u>PRIMARY FAN</u>   | <u>ON</u>   | <u>OFF</u>  | <u>SECONDARY FAN</u> | <u>ON</u>   | <u>OFF</u> |
| A/C Head Pressure or | 200 PSI     | 150 PSI     | A/C Head Pressure or | 250 PSI     | 190 PSI    |
| Engine Coolant       | 223 deg. F. | 216 deg. F. | Engine Coolant       | 244 deg. F. | 237 deg F  |

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 5-90 Revised(\*)           

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 2.5 LITER L4 (151 CID)            |
| Engine Code        | ELECTRONIC FUEL INJECTION RPO LR8 |

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

|   |  |   |
|---|--|---|
| Induction type: carburetor, fuel injection system, etc.               |  | Fuel Injection  |
| Manufacturer  |  | AC/Rochester Products                                     |
| Carburetor no. of barrels   |  | None  |
| Idle A/F mix.   |  | Preset - No Adjustment Provided                           |
| Fuel Injection  | Point of inj. (no.)                                      | Throttle Body Above Throttle Blade (Single)               |
|   | Constant, pulse, flow                                    | Pulse   |
|   | Control (elec., mech.)                                   | Electronic  |
|   | Sys. press. kPa (psi)                                    | 210 (30.5)  |
| Idle spd. -rpm (spec. neutral or drive and propane if used)           | Manual   | Not Applicable  |
|   | Automatic  | 600 In Drive  |
| Intake manifold heat control (exhaust or water thermostatic or fixed) |  | Water   |
| Air cleaner type  |  | Single Snorkel  |
| Fuel filter (type/location)   |  | Replaceable Enclosed Paper Element Located Near Fuel Tank |
| Fuel pump   | Type (elec. or mech.)                                    | Electric  |
|   | Location (eng., tank)                                    | Fuel Tank   |
|   | Press. range kPa (psi)                                   | Pressure Depends On Flow Rate And System Voltage          |
|   | Flow rate at regulated pressure (L (gal)/hr @ kPa (psi)) | 81.6 @ 210 - W.O.T.<br>21.6 @ 30.5 - W.O.T.               |

### Fuel Tank

|                                  |                       |   |
|----------------------------------|-----------------------|---|
| Capacity refill L (gallons)      |                       | 64.98 (17.1)  |
| Location (describe)              |                       | Underbody, Forward Of Rear Axle                                   |
| Attachment                       |                       | Two Steel Straps W/Four Vertical Fasteners                        |
| Material & Mass kg (weight lbs.) |                       | Stamped Steel Upper & Lower W/Perimeter Seam Weld; 9.634 (21.239) |
| Filler pipe                      | Location & material   | Left Rear Quarter Panel   |
|                                  | Connection to tank    | Flexible Hose   |
| Fuel line (material)             |                       | Steel With Double-Sided Corrosion Protection                      |
| Fuel hose (material)             |                       | GM6163M Coupled Elastomer   |
| Return line (material)           |                       | Steel   |
| Vapor line (material)            |                       | Steel   |
| Extended range tank              | Opt., n.a.            | Not Applicable  |
|                                  | Capacity L (gallons)  | "   |
|                                  | Location & material   | "   |
|                                  | Attachment            | "   |
| Auxiliary tank                   | Opt., n.a.            | Not Applicable  |
|                                  | Capacity L (gallons)  | "   |
|                                  | Location & material   | "   |
|                                  | Attachment            | "   |
|                                  | Slctr switch or valve | "   |
| Separate fill                    |                       | "   |

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*)

## METRIC (U.S. Customary)

Engine Description  
 Engine Code

3.1 LITER V6 (191 CID)  
 MULTI-PORT FUEL INJECTION RPO LHO

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

|   |  |   |
|---|--|---|
| Induction type: carburetor, fuel injection system, etc.               |  | Fuel Injection  |
| Manufacturer  |  | AC/Rochester Products   |
| Carburetor no. of barrels   |  | None  |
| Idle A/F mix.   |  | Preset-No Adjustment Provided                                 |
| Fuel Injection  | Point of inj. (no.)                                      | Fuel Injectors At Inlet Ports                                 |
|   | Constant, pulse, flow                                    | Pulse   |
|   | Control (elec., mech.)                                   | Electronic  |
|   | Sys. press. kPa (psi)                                    | 300 (43.5)  |
| Idle spd.-rpm (Spec. neutral or drive and propane if used)            | Manual   | Not Applicable  |
|   | Automatic  | 600 In Drive  |
| Intake manifold heat control (exhaust or water thermostatic or fixed) |  | Water   |
| Air cleaner type  |  | Single Snorkel  |
| Fuel filter (type/location)   |  | Replaceable Enclosed Paper Element Located Near Fuel Tank     |
| Fuel pump   | Type (elec. or mech.)                                    | Electrical  |
|   | Location (eng., tank)                                    | Fuel Tank   |
|   | Press. range kPa (psi)                                   | Pressure Depends On Flow Rate And System Voltage              |
|   | Flow rate at regulated pressure (L (gal)/hr @ kPa (psi)) | 62.4 @ 350 (Figures For Wide Open Throttle)<br>(16.51 @ 50.8) |

### Fuel Tank

|                                  |                       |   |
|----------------------------------|-----------------------|---|
| Capacity refill L (gallons)      |                       | 62.7 (16.5)   |
| Location (describe)              |                       | Underbody, Forward Of Rear Axle                                   |
| Attachment                       |                       | Two Steel Straps W/Four Vertical Fasteners                        |
| Material & Mass kg (weight lbs.) |                       | Stamped Steel Upper & Lower W/Perimeter Seam Weld: 9.634 (21.239) |
| Filler pipe                      | Location & material   | Left Rear Quarter Panel   |
|                                  | Connection to tank    | Flexible Hose   |
| Fuel line (material)             |                       | Steel With Double-Sided Corrosion Protection                      |
| Fuel hose (material)             |                       | GM6163M Coupled Elastomer   |
| Return line (material)           |                       | Steel   |
| Vapor line (material)            |                       | Steel   |
| Extended range tank              | Opt., n.a.            | Not Applicable  |
|                                  | Capacity L (gallons)  | "   |
|                                  | Location & material   | "   |
|                                  | Attachment            | "   |
| Auxiliary tank                   | Opt., n.a.            | Not Applicable  |
|                                  | Capacity L (gallons)  | "   |
|                                  | Location & material   | "   |
|                                  | Attachment            | "   |
|                                  | Sictr switch or valve | "   |
|                                  | Separate fill         | "   |

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

### Engine Description

3.4 LITER V6 (207 CID)

### Engine Code

MULTI-PORT FUEL INJECTION RPO LQ1

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

|   |  |                                 |
|---|--|---------------------------------|
| Induction type: carburetor, fuel injection system, etc.               |  | Fuel Injection                  |
| Manufacturer  |  | AC/Rochester Products           |
| Carburetor no. of barrels   |  | None                            |
| Idle A/F mix.   |  | Preset - No Adjustment Provided |
| Fuel Injection  | Point of inj. (no.)                                      | At Inlet Ports (6)              |
|   | Constant, pulse, flow                                    | Pulse                           |
|   | Control (elec., mech.)                                   | Electronic                      |
|   | Sys. press. xPa (psi)                                    | 300 (43.5)                      |
| Idle spd.-rpm (spec. neutral or drive and propane if used)            | Manual   |                                 |
|   | Automatic  |                                 |
| Intake manifold heat control (exhaust or water thermostatic or fixed) |  | Water                           |
| Air cleaner type  |  | Single Snorkel                  |
| Fuel filter (type/location)   |  |                                 |
| Fuel pump   | Type (elec. or mech.)                                    | Electrical                      |
|   | Location (eng., tank)                                    | Fuel Tank                       |
|   | Press. range xPa (psi)                                   |                                 |
|   | Flow rate at regulated pressure (L (gal)/hr @ kPa (psi)) |                                 |

### Fuel Tank

|                                  |                       |   |
|----------------------------------|-----------------------|---|
| Capacity refill L (gallons)      |                       | 62.7 (16.5)   |
| Location (describe)              |                       | Underbody, Forward Of Rear Axle                                   |
| Attachment                       |                       | Two Steel Straps W/Four Vertical Fasteners                        |
| Material & Mass kg (weight lbs.) |                       | Stamped Steel Upper & Lower W/Perimeter Seam Weld; 9.634 (21.239) |
| Filler pipe                      | Location & material   | Left Rear Quarter Panel   |
|                                  | Connection to tank    | Flexible Hose   |
| Fuel line (material)             |                       | Steel With Double-Sided Corrosion Protection                      |
| Fuel hose (material)             |                       | GM6163M Coupled Elastomer   |
| Return line (material)           |                       | Steel   |
| Vapor line (material)            |                       | Steel   |
| Extended range tank              | Opt., n.a.            | Not Applicable  |
|                                  | Capacity L (gallons)  | "   |
|                                  | Location & material   | "   |
|                                  | Attachment            | "   |
| Auxiliary tank                   | Opt., n.a.            | Not Applicable  |
|                                  | Capacity L (gallons)  | "   |
|                                  | Location & material   | "   |
|                                  | Attachment            | "   |
|                                  | Slctr switch or valve | "   |
| Separate fill                    |                       | "   |

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*)         

## METRIC (U.S. Customary)

Engine Description  
 Engine Code

2.5 LITER L4 (151 CID)  
 ELECTRONIC FUEL INJECTION RPO LR8

### Vehicle Emission Control

|                              |  |  |   |
|------------------------------|--|--|---|
| Exhaust Emission Control     | Type (air injection, engine modifications, other)        |  | Not Applicable                              |
|                              | Air injection  | Pump or pulse  | "   |
|                              |  | Driven by  | "   |
|                              |  | Air distribution (head, manifold, etc.,)                             | "   |
|                              |  | Point of entry   | "   |
|                              | Exhaust Gas Recirculation                                | Type (controlled flow, open orifice, other)                          | Controlled Flow                             |
|                              |  | Exhaust source<br>Point of exh.inj. (spacer, carb., manifold, other) | Manifold                                    |
|                              | Catalytic Converter                                      | Type   | Single Bed Bead                             |
|                              |  | Number of  | 1   |
|                              |  | Location(s)  | Mounted To Underbody                        |
|                              |  | Volume L (cu.in.)  | 2.62 (160)                                  |
|                              |  | Substrate type   | Ceramic                                     |
|                              |  | Noble metal type   | Platinum (Pt), Rhodium (Rh), Palladium (Pd) |
| Crankcase Emission Control   | Type (ventilates to atmosphere, induction system, other) |  | Orifice PCV                                 |
|                              | Energy source (manifold vacuum, carburetor, other)       |  | Rocker Cover                                |
|                              | Discharges to (intake manifold, other)                   |  | Intake Manifold                             |
|                              | Air inlet (breather cap, other)                          |  | Rocker Cover                                |
| Evaporative Emission Control | Vapor vented to (crankcase, canister, other)             | Fuel tank  | Canister                                    |
|                              |  | Carburetor   | Not Applicable                              |
|                              | Vapor storage provision                                  |  | 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)<br>Material & Mass kg (weight lbs.) |                             | Single, Reverse Flow                        |
| Resonator no. & type   |                             | None  |
| Exhaust pipe   | Branch o.d., wall thickness | None  |
|  | Main o.d., wall thickness   | 57.15 x 2.02mm, Laminated (2.25 x .080 in.) |
|  | Matl. & Mass kg (wght.lbs.) | 409 Stainless Steel                         |
| Intermediate pipe  | o.d. & wall thickness       | 50.8 x 1.07mm (2.0 x .042 in.)              |
|  | Matl. & Mass kg (wght.lbs.) | 409 Stainless Steel                         |
| Tail pipe  | o.d. & wall thickness       | 50.8 x 1.07mm (2.0 x .042 in.)              |
|  | Matl. & Mass kg (wght.lbs.) | Aluminized - 409 Stainless Steel            |

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

METRIC (U.S. Customary)

Engine Description **3.1 LITER V6 (191 CID)**  
 Engine Code **MULTI-PORT FUEL INJECTION RPO LHO**

## Vehicle Emission Control

|                              |  |  |  |
|------------------------------|--|--|--|
| Exhaust Emission Control     | Type (air injection, engine modifications, other)        |  | Not Applicable   |
|                              | Air injection  | Pump or pulse  | "  |
|                              |  | Driven by  | "  |
|                              |  | Air distribution (head, manifold, etc.)                              | "  |
|                              |  | Point of entry   | "  |
|                              | Exhaust Gas Recirculation                                | Type (controlled flow, open orifice, other)                          | 3 Sized Orifices Which Are Opened Or Closed Using Pintles, And Solenoids. 8 Flow Combination |
|                              |  | Exhaust source<br>Point of exh.inj. (spacer, carb., manifold, other) | Plenum. Near Throttle Body   |
|                              | Catalytic Converter                                      | Type   | Bed Monolith (Dual)  |
|                              |  | Number of  | 1  |
|                              |  | Location(s)  | Mounted To Underbody   |
| Volume L (cu.in)             |  | 2.79 (170)   |  |
| Substrate type               |  | Ceramic Monolith   |  |
| Noble metal type             |  | Platinum (Pt). Rhodium (Rh)  |  |
| Crankcase Emission Control   | Type (ventilates to atmosphere, induction system, other) |  | Closed Induction System  |
|                              | Energy source (manifold vacuum, carburetor, other)       |  | Plenum Vacuum  |
|                              | Discharges to (intake manifold, other)                   |  | Discharges To Plenum   |
|                              | Air int.(breather cap, other)                            |  | Duct Between Air Cleaner And Throttle Body   |
| Evaporative Emission Control | Vapor vented to (crankcase, canister, other)             | Fuel tank  | Fuel Tank To Canister To Throttle Body Port  |
|                              |  | Carburetor   | Not Applicable   |
|                              | Vapor storage provision                                  |  | 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 W/Crossover               |
| Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass kg (weight lbs.) |                             | Single Reverse Flow              |
| Resonator no. & type  |                             | None                             |
| Exhaust pipe  | Branch o.d., wall thickness | --                               |
|   | Main o.d., wall thickness   | 50.8 x 1.07 mm (2.0 x .042 in.)  |
|   | Matl. & Mass kg (wght.lbs.) | 409 Stainless Steel              |
| Inter-mediate pipe  | o.d. & wall thickness       | 50.8 x 1.07 mm (2.0 x .042 in.)  |
|   | Matl. & Mass kg (wght.lbs.) | 409 Stainless Steel              |
| Tail pipe   | o.d. & wall thickness       | 50.8 x 1.07 mm (2.0 x .042 in.)  |
|   | Matl. & Mass kg (wght.lbs.) | Aluminized - 409 Stainless Steel |



# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*)         

## METRIC (U.S. Customary)

Engine Description 3.4 LITER V6 (207 CID)  
 Engine Code MULTI-PORT FUEL INJECTION RPO LQ1

### Vehicle Emission Control

|  |   |  |   |
|--|---|--|---|
| Exhaust Emission Control                           | Type (air injection, engine modifications, other) |  |   |
|  | Air injection                                     | Pump or pulse  | Pump  |
|  |   | Driven by  | Electric Motor                              |
|  |   | Air distribution (head, manifold, etc.,)                             | Exhaust Manifold                            |
|  |   | Point of entry   | Exhaust Manifold At Center Of All 6 Ports   |
|  | Exhaust Gas Recirculation                         | Type (controlled flow, open orifice, other)                          | Controlled Flow                             |
|  |   | Exhaust source<br>Point of exh.inj. (spacer, carb., manifold, other) | Plenum Near Throttle Body                   |
|  | Catalytic Converter                               | Type   | Bed Monolith (Dual)                         |
|  |   | Number of  | 1   |
|  |   | Location(s)  | Mounted To Underbody                        |
|  |   | Volume L (cu.in)   | 1.80 (110)                                  |
|  |   | Substrate type   | Ceramic                                     |
|  |   | Noble metal type   | Platinum (Pt.), Rhodium (Rh)                |
|  | Crankcase Emission Control                        | Type (ventilates to atmosphere, induction system, other)             |   |
| Energy source (manifold vacuum, carburetor, other) |   | Manifold Vacuum  |   |
| Discharges to (intake manifold, other)             |   | Fresh Air Side To Air Cleaner Duct                                   |   |
| Air inlet (breather cap, other)                    |   | Duct Between Air Cleaner And Throttle Body                           |   |
| Evaporative Emission Control                       | Vapor vented to (crankcase, canister, other)      | Fuel tank  | Fuel Tank To Canister To throttle Body Port |
|  |   | Carburetor   | Not Applicable                              |
|  | Vapor storage provision                           |  | Canister                                    |
| Electronic System                                  | Closed loop (yes/no)                              |  | Yes   |
|  | Open loop (yes/no)                                |  | No  |

### Engine - Exhaust System

|   |                             |   |
|---|-----------------------------|---|
| Type (single, single with cross-over, dual, other)  |                             | Dual, With Crossover  |
| Muffler no. & type (reverse flow, straight thru, separate resonator) Material & Mass kg (weight lbs.) |                             | Dual, Reverse Flow  |
| Resonator no. & type  |                             | 69.9 O.D., Round Bottle Straight Thru                           |
| Exhaust pipe  | Branch o.d., wall thickness |   |
|   | Main o.d., wall thickness   | 63.5 O.D., 1.75 Min., 409 Stainless Steel                       |
|   | Matt. & Mass kg (wght.lbs.) | 409 Stainless Steel   |
| Inter-mediate pipe  | o.d. & wall thickness       | 57.15 O.D., 1.47 Min.; w/50.8 O.D., Legs, 1.20 Min.             |
|   | Matt. & Mass kg (wght.lbs.) | 409 Stainless Steel   |
| Tail pipe   | o.d. & wall thickness       | 57.15 O.D., 1.37 Min. Tailpipe Stubs 1.20 Min. Tip              |
|   | Matt. & Mass kg (wght.lbs.) | 409 Stainless Steel - Painted Stub With 304 Stainless Steel Tip |

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*)

## METRIC (U.S. Customary)

Engine Description 2.5 LITER L4 (151 CID)  
 Engine Code ELECTRONIC FUEL INJECTION RPO LR8

### Transmissions/Transaxle (Std., Opt., N.A.)

|  |                           |
|--|---------------------------|
| Manual 3-speed (manufacturer/country)  | Not Available             |
| Manual 4-speed (manufacturer/country)  | "                         |
| Manual 5-speed (manufacturer/country)  | "                         |
| Automatic (manufacturer/country)       | Hydra-Matic, U.S.A. (MD9) |
| Auto. overdrive (manufacturer/country) | Not Available             |

### Manual Transmission/Transaxle (NOT APPLICABLE)

|                                     |                  |  |
|-------------------------------------|------------------|--|
| Number of forward speeds            |                  |  |
| Gear ratios                         | 1st              |  |
|                                     | 2nd              |  |
|                                     | 3rd              |  |
|                                     | 4th              |  |
|                                     | 5th              |  |
|                                     | Reverse          |  |
| Synchronous meshing (specify gears) |                  |  |
| Shift lever location                |                  |  |
| Trans. case mat'l. & mass kg (lbs)* |                  |  |
| Lubricant                           | Capacity L (pt.) |  |
|                                     | Type recommended |  |

### Clutch (Manual Transmission) (NOT APPLICABLE)

|   |  |  |
|---|--|--|
| Clutch manufacturer                           |  |  |
| Clutch type (dry, wet; single, multiple disc) |  |  |
| Linkage (hyd., cable, rod, lever, other)      |  |  |
| Max. pedal effort (nom. spring load) N (lbs.) | Depressed  |  |
|   | Released   |  |
| Assist (spring, power/percent, nominal)       |  |  |
| Type pressure plate springs                   |  |  |
| Total spring load (nominal) N (lbs.)          |  |  |
| Clutch facing                                 | Facing mfr. & mat'l. coding                      |  |
|   | Facing mat'l. & construction                     |  |
|   | Rivets per facing                                |  |
|   | Outside x inside dia. (nom.)                     |  |
|   | Total eff. area sq cm (sq in)                    |  |
|   | Thickness (pressure plate side/fly wheel side)   |  |
|   | Rivet depth (pressure plate side/fly wheel side) |  |
| Engagement cushion method                     |  |  |
| Release bearing type & method lub.            |  |  |
| Torsional damping method, springs, hysteresis |  |  |

\* Includes Shift Linkage, Lubricant, And Clutch Housing. If Other Specify.

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 3.1 LITER V6 (191 CID)            |
| Engine Code        | MULTI-PORT FUEL INJECTION RPO LHO |

### Transmissions/Transaxle (Std., Opt., N.A.)

|  |                                   |
|--|-----------------------------------|
| Manual 3-speed (manufacturer/country)  | Not Available                     |
| Manual 4-speed (manufacturer/country)  | "                                 |
| Manual 5-speed (manufacturer/country)  | "                                 |
| Automatic (manufacturer/country)       | Standard, Hydra-Matic, U.S. (MD9) |
| Auto. overdrive (manufacturer/country) | Optional, Hydra-Matic, U.S. (ME9) |

### Manual Transmission/Transaxle (NOT APPLICABLE)

|                                     |                   |  |
|-------------------------------------|-------------------|--|
| Number of forward speeds            |                   |  |
| Gear ratios                         | 1st               |  |
|                                     | 2nd               |  |
|                                     | 3rd               |  |
|                                     | 4th               |  |
|                                     | 5th               |  |
|                                     | Reverse           |  |
| Synchronous meshing (specify gears) |                   |  |
| Shift lever location                |                   |  |
| Trans. case mat'l. & mass kg (lbs)* |                   |  |
| Lubricant                           | Capacity L (put.) |  |
|                                     | Type recommended  |  |

### Clutch (Manual Transmission) (NOT APPLICABLE)

|  |  |  |
|--|--|--|
| Clutch manufacturer                                |  |  |
| Clutch type (dry, wet; single, multiple disc)      |  |  |
| Linkage (hyd., cable, rod, lever, other)           |  |  |
| Max. pedal effort (nom. spring load) N (lbs./lbs.) | Depressed  |  |
|  | Released   |  |
| Assist (spring, power/percent, nominal)            |  |  |
| Type pressure plate springs                        |  |  |
| Total spring load (nominal) N (lbs.)               |  |  |
| Clutch facing                                      | Facing mfr. & matl. coding                       |  |
|  | Facing matl. & construction                      |  |
|  | Rivets per facing                                |  |
|  | Outside x inside dia. (nom.)                     |  |
|  | Total eff. area sq cm(sq in)                     |  |
|  | Thickness (pressure plate side/fly wheel side)   |  |
|  | Rivet depth (pressure plate side/fly wheel side) |  |
| Engagement cushion method                          |  |  |
| Release bearing type & method lub.                 |  |  |
| Torsional damping method, springs, hysteresis      |  |  |

\* Includes shift linkage, lubricant, and clutch housing. If other specify.

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

Engine Description 3.4 LITER V6 (207 CID)  
 Engine Code MULTI-PORT FUEL INJECTION RPO LQ1

## Transmissions/Transaxle (Std., Opt., N.A.)

|  |                              |
|--|------------------------------|
| Manual 3-speed (manufacturer/country)  |                              |
| Manual 4-speed (manufacturer/country)  |                              |
| Manual 5-speed (manufacturer/country)  | <u>Getrag / U.S.A. (M27)</u> |
| Automatic (manufacturer/country)       |                              |
| Auto. overdrive (manufacturer/country) |                              |

## Manual Transmission/Transaxle

|                                     |                  |   |
|-------------------------------------|------------------|---|
| Number of forward speeds            |                  | <u>5</u>                                    |
| Gear ratios                         | 1st              | <u>3.46</u>                                 |
|                                     | 2nd              | <u>2.28</u>                                 |
|                                     | 3rd              | <u>1.48</u>                                 |
|                                     | 4th              | <u>1.09</u>                                 |
|                                     | 5th              | <u>.72</u>                                  |
|                                     | Reverse          | <u>3.00</u>                                 |
| Synchronous meshing (specify gears) |                  | <u>1, 2, 3, 4, 5, and Rev.</u>              |
| Shift lever location                |                  | <u>Floor Mount</u>                          |
| Trans. case mat'l. & mass kg (lbs)* |                  | <u>Aluminum 48.2 (106.3)</u>                |
| Lubricant                           | Capacity L (pt.) | <u>2.1 (4.4)</u>                            |
|                                     | Type recommended | <u>Synchromesh Transmission Fluid (STF)</u> |

## Clutch (Manual Transmission)

|   |  |   |
|---|--|---|
| Clutch manufacturer                           |  | <u>Daikin</u>   |
| Clutch type (dry, wet; single, multiple disc) |  | <u>Dry, Single Disc, Pull Type Clutch</u>                                   |
| Linkage (hyd., cable, rod, lever, other)      |  | <u>Hydraulic</u>  |
| Max. pedal effort (nom. spring load) N (lbs.) | Depressed  | <u>133.4 (30.0)</u>   |
|   | Released   | <u>133.4 (30.0)</u>   |
| Assist (spring, power/percent, nominal)       |  | <u>None</u>   |
| Type pressure plate springs                   |  | <u>Diaphragm</u>  |
| Total spring load (nominal) N (lbs)           |  | <u>7161 (1610)</u>  |
| Clutch facing                                 | Facing mfg. & matl. coding                       | <u>Valeo F-202</u>  |
|   | Facing matl. & construction                      | <u>Non-Asbestos</u>   |
|   | Rivets per facing                                | <u>16</u>   |
|   | Outside x inside dia. (nom.)                     | <u>246 x 155mm (9.69 x 6.10 in.)</u>  |
|   | Total eff. area sq cm (sq in)                    | <u>573 (88.85)</u>  |
|   | Thickness (pressure plate side/fly wheel side)   | <u>3.5/3.2mm (.138/.126 in.)</u>  |
|   | Rivet depth (pressure plate side/fly wheel side) | <u>1.6/1.5mm (.063/.059 in.)</u>  |
| Engagement cushion method                     |  | <u>Cushion Springs</u>  |
| Release bearing type & method lub.            |  | <u>Self Centering, Angular Contact Ball Bearing Pre-Packed &amp; Sealed</u> |
| Torsional damping method, springs, hysteresis |  | <u>Steel Coil Springs Single Stage With Non-Metal Friction Control</u>      |

\* Includes shift linkage, lubricant, and clutch housing. If other specify.

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 2.5 LITER L4 (151 CID)            |
| Engine Code        | ELECTRONIC FUEL INJECTION RPO LRB |

### Automatic Transmission/Transaxle

|  |                                     |                                     |
|--|-------------------------------------|-------------------------------------|
| Trade Name   |                                     | THM 125c (Hydra-Matic 3T40)         |
| Type and special features (describe)                           |                                     | 3-Speed Automatic                   |
| Gear selector  | Location (column, floor, other)     | Column & Floor                      |
|  | Ltr./No. designation (e.g. PRND21)  | P-R-N-D-2-1                         |
|  | Shift interlock (yes, no, describe) | No                                  |
| Gear ratios  | 1st                                 | 2.84                                |
|  | 2nd                                 | 1.60                                |
|  | 3rd                                 | 1.00 (Converter Clutch Engagement)  |
|  | 4th                                 | -                                   |
|  | Reverse                             | 2.07                                |
| Max. upshift speed - drive range km/h (mph)                    |                                     | 1 - 2 = 66 (41)<br>2 - 3 = 117 (73) |
| Max. kickdown speed - drive range km/h (mph)                   |                                     | 3 - 2 = 113 (70)<br>2 - 1 = 60 (37) |
| Min. overdrive speed km/h (mph)                                |                                     | Not Applicable                      |
| Torque converter   | Number of elements                  | 3                                   |
|  | Max. ratio at stall                 | 2.48                                |
|  | Type of cooling (air, liquid)       | Liquid                              |
|  | Nominal diameter                    | 245 mm (9.65 in.)                   |
|  | Capacity factor "K"                 | 203                                 |
| Lubricant  | Capacity refill L (pt.)             | 8.5 (18.0) (Dry Transmission)       |
|  | Type recommended                    | Dexron II                           |
| Oil cooler (std., opt., N.A., internal, external, air, liquid) |                                     | Standard, Integral With Radiator    |
| Trans. mass kg (lbs.) & case matl.**                           |                                     | 65.7 (144.81), Aluminum             |

|  |  |                  |
|--|--|------------------|
| <b>All Wheel / 4 Wheel Drive</b>   |  | (NOT APPLICABLE) |
| Desc. & type (part-time, full-time, 2/4 shift while moving, mech., elect., chain/gear, etc.) |  |                  |
| Transfer case  | Manufacturer and model                                       |                  |
|  | Type and location  |                  |
| Low-range gear ratio   |  |                  |
| System disconnect (describe)   |  |                  |
| Center differential  | Type (bevel, planetary, w or w/o viscous bias, torsen, etc.) |                  |
|  | Torque split (% frt/rear)                                    |                  |

\* Input speed / square root of torque.  
 \*\* Dry weight including torque converter. If other, specify.

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

### Engine Description

3.1 LITER V6 (191 CID)

### Engine Code

MULTI-PORT FUEL INJECTION RPO LHO

## Automatic Transmission/Transaxle

| Trade Name   |                                     | Hydra-Matic 3T40                    | Hydra-Matic 4T60                                   |
|--|-------------------------------------|-------------------------------------|--|
| Type and special features (describe)                           |                                     | 3-Speed Automatic                   | 4-Speed Automatic                                  |
| Gear selector  | Location (column, floor, other)     | Column & Floor                      | Column & Floor                                     |
|  | Ltr./No. designation (e.g. PRND21)  | P-R-N-D-2-1                         | P-R-N- <u>D</u> -2-1                               |
|  | Shift interlock (yes, no, describe) | No                                  | No   |
| Gear ratios  | 1st                                 | 2.84                                | 2.92   |
|  | 2nd                                 | 1.60                                | 1.56   |
|  | 3rd                                 | 1.00 (Converter Clutch Engagement)  | 1.00 (Converter Clutch Engagement)                 |
|  | 4th                                 | -                                   | 0.70 (Converter Clutch Engagement)                 |
|  | Reverse                             | 2.07                                | 2.38   |
| Max. upshift speed - drive range km/h (mph)                    |                                     | 1-2 = 61 (38)<br>2-3 = 119 (74)     | 1-2 = 64 (40)<br>2-3 = 119 (74)                    |
| Max. kickdown speed - drive range km/h (mph)                   |                                     | 3-2 = 116 (72)<br>2-1 = 53 (33)     | 4-3 = 161 (100)<br>3-2 = 108 (67)<br>2-1 = 58 (36) |
| Min. overdrive speed km/h (mph)                                |                                     | Not Applicable                      | 70 (43.5)  |
| Torque converter   | Number of elements                  | 3                                   | 3  |
|  | Max. ratio at stall                 | 2.35                                | 2.22   |
|  | Type of cooling (air, liquid)       | Liquid                              | Liquid   |
|  | Nominal diameter                    | 245mm (9.8 in.)                     | 245mm (9.8 in.)                                    |
|  | Capacity factor *K**                | 177                                 | 177  |
| Lubricant  | Capacity refill L (pt.)             | 8.5 (17.85) Dry Transmission        | 8.0 (16.9)   |
|  | Type recommended                    | Dexron II                           | Dexron II  |
| Oil cooler (std., opt., N.A., internal, external, air, liquid) |                                     | Standard, Integral Part Of Radiator | Standard, Integral Part Of Radiator                |
| Trans. mass kg (lbs.) & case matl.**                           |                                     | 65.7 (144.54)                       | 79.1 (174.45), Dry Transmission                    |

## All Wheel / 4 Wheel Drive

(NOT APPLICABLE)

|  |  |  |
|--|--|--|
| Desc. & type (part-time, full-time, 2/4 shift while moving, mech., elect., chain/gear, etc.) |  |  |
| Transfer case  | Manufacturer and model                                       |  |
|  | Type and location  |  |
| Low-range gear ratio   |  |  |
| System disconnect (describe)   |  |  |
| Center differential  | Type (bevel, planetary, w or w/o viscous bias, torsen, etc.) |  |
|  | Torque split(% frt/rear)                                     |  |

\* Input speed / square root of torque.

\*\* Dry weight including torque converter. If other, specify.

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

Engine Description **3.4 LITER V6 (207 CID)**  
 Engine Code **MULTI-PORT FUEL INJECTION RPO LQ1**

### Automatic Transmission/Transaxle

|  |                                     |  |
|--|-------------------------------------|--|
| Trade Name   |                                     | Hydra-Matic (4T60E)  |
| Type and special features (describe)                           |                                     | 4-Speed Automatic<br>Electronically Controlled Shift Pattern |
| Gear selector  | Location (column, floor, other)     | Floor  |
|  | Ltr./No. designation (e.g. PRND21)  | P-R-N- <b>D</b> -D-2-1                                       |
|  | Shift interlock (yes, no, describe) | No   |
| Gear ratios  | 1st                                 | 2.92   |
|  | 2nd                                 | 1.56   |
|  | 3rd                                 | 1.00   |
|  | 4th                                 | .70  |
|  | Reverse                             | 2.38   |
| Max. upshift speed - drive range km/h (mph)                    |                                     | 1-2 = 64 (40)      3-4 = 167 (104)<br>2-3 = 117 (73)         |
| Max. kickdown speed - drive range km/h (mph)                   |                                     | 2-1 = 13 (8)      4-3 = 154 (96)<br>3-2 = 116 (72)           |
| Min. overdrive speed km/h (mph)                                |                                     | 2-1 = 10 (6), 3-2 = 27 (17), 4-3 = 34 (21)                   |
| Torque converter   | Number of elements                  | 3  |
|  | Max. ratio at stall                 | 1.8  |
|  | Type of cooling (air, liquid)       | Liquid   |
|  | Nominal diameter                    | 245mm (9.7 in.)  |
|  | Capacity factor "K"                 | 180  |
| Lubricant  | Capacity refill L (pt.)             | 10.42 (22.1), Dry Transmission                               |
|  | Type recommended                    | Dexron II  |
| Oil cooler (std., opt., N.A., internal, external, air, liquid) |                                     | Standard. Liquid For Internal (Radiator) & Air (External)    |
| Trans. mass kg (lbs) & case matl.**                            |                                     | 83.4 (183.9), Dry Transmission                               |

### All Wheel / 4 Wheel Drive (NOT APPLICABLE)

|  |  |  |
|--|--|--|
| Desc. & type (part-time, full-time, 2/4 shift while moving, mech., elect., chain/gear, etc.) |  |  |
| Transfer case  | Manufacturer and model                                       |  |
|  | Type and location  |  |
| Low-range gear ratio   |  |  |
| System disconnect (describe)   |  |  |
| Center differential  | Type (bevel, planetary, w or w/o viscous bias, torsen, etc.) |  |
|  | Torque split(% frt/rear)                                     |  |

\* Input speed / square root of torque.  
 \*\* Dry weight including torque converter. If other, specify.

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

METRIC (U.S. Customary)

Engine Description 2.5 LITER L4 (151 CID)  
 Engine Code ELECTRONIC FUEL INJECTION RPO LR8

| Axle Ratio and Tooth Combinations                       |                | (See 'Power Teams' for axle ratio usage) | AUTOMATIC TRANS (MD9) |
|---|----------------|--|-----------------------|
| Effective final drive ratio (or overall top gear ratio) |                | 3.18                                     |                       |
| Transfr ratio and method(chain,gear,etc)                |                | 1.12 Chain                               |                       |
| Front drive unit  | Ring gear o.d. | Not Applicable                           |                       |
|   | No. of teeth   | Pinion                                   | "                     |
|   |                | Ring gear                                | "                     |

| Front Drive Unit                       |  |                              |
|--|--|------------------------------|
| Description (integral to trans., etc.) | Planetary Final Drive Integral With Transmission |                              |
| Limited slip differential (type)       | Not Applicable                                   |                              |
| Drive pinion                           | Type   | "                            |
|  | Offset   | "                            |
| No. of differential pinions            |  | 2                            |
| Pinion/differential                    | Adjustment (shim, etc.)                          | Not Applicable               |
|  | Bearing adjustment                               | "                            |
| Driving wheel bearing (type)           |  |                              |
| Lubricant                              | Capacity L (pt.)                                 | 8.5 (18.0). Dry Transmission |
|  | Type recommended                                 | Dexron II                    |

| Axle Shafts - Front Wheel Drive                     |                                |  |   |
|---|--------------------------------|--|---|
| Manufacturer and number used                        |                                | 2 Per Car  |   |
| Type (straight, solid bar, tubular, etc.)           | Left                           | Straight Solid Bar   |   |
|   | Right                          | Straight Solid Bar   |   |
| Outer diam. x length* x wall thickness              | Manual transaxle               | Left   | Not Applicable  |
|   |                                | Right  | "   |
|   | Automatic transaxle            | Left   | 23.81 X 331.0mm (.94 x 13.03 in.)                             |
|   |                                | Right  | 27.06 x 407.3mm (1.07 x 16.03 in.)                            |
|   | Optional transaxle             | Left   | --  |
|   |                                | Right  | --  |
| Slip yoke   | Type                           | --   |   |
|   | Number of teeth                | --   |   |
|   | Spline o.d.                    | --   |   |
| Universal joints                                    | Make and mfg. no.              | Inner  | Saginaw Division  |
|   |                                | Outer  | Saginaw Division  |
|   | Number used                    |  | 4. 2 On Each Shaft  |
|   | Type, size, plunge             | Inner  | Tripot Joint, 27 Size 65mm                                    |
|   |                                | Outer  | Rzeppa Joint, Fixed, 32H Size                                 |
|   | Attach (u-bolt, clamp, etc.)   |  | Inboard Joint-Snap Ring, Outboard Joint (Nut/Washer-Clamping) |
| Bearing   | Type (plain, anti-friction)    | Inboard Joint: Ball Bearing, Needle Roller Bearing (Anti-Friction Bearing)<br>Outboard Joint: Ball Bearing |   |
|   | Lubrication (fitting, prepack) | Prepacked  |   |
| Drive taken through (torque tube, arms or springs)  |                                | Front Wheel Drive Shafts   |   |
| Torque taken through (torque tube, arms or springs) |                                | Engine Mounting System   |   |

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



# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*)         

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 3.1 LITER V6 (191 CID)            |
| Engine Code        | MULTI-PORT FUEL INJECTION RPO LHO |

### Axle Ratio and Tooth Combinations (See 'Power Teams' for axle ratio usage) AUTOMATIC TRANS (ME9)

|   |                |                |
|---|----------------|----------------|
| Effective final drive ratio (or overall top gear ratio) | 3.33           |                |
| Transfr ratio and method(chain, gear, etc)              | 1.00 Chain     |                |
| Front drive unit  | Ring gear o.d. | Not Applicable |
|   | No. of teeth   | "              |
|   | Pinion         | "              |
|   | Ring gear      | "              |

### Front Drive Unit

|  |  |                |
|--|--|----------------|
| Description (integral to trans., etc.) | Planetary Final Drive Integral With Transmission |                |
| Limited slip differential (type)       | Not Applicable                                   |                |
| Drive pinion                           | Type   | "              |
|  | Offset   | "              |
| No. of differential pinions            | 2  |                |
| Pinion/differential                    | Adjustment (shim, etc.)                          | Not Applicable |
|  | Bearing adjustment                               | "              |
| Driving wheel bearing (type)           |  |                |
| Lubricant                              | Capacity L (pt.)                                 | 8.0 (16.9)     |
|  | Type recommended                                 | Dexron II      |

### Axle Shafts - Front Wheel Drive

|   |                              |   |  |  |
|---|------------------------------|---|--|--|
| Manufacturer and number used                        | 2 Per Car                    |   |  |  |
| Type (straight, solid bar, tubular, etc.)           | Left                         | Straight Solid Bar  |  |  |
|   | Right                        | Straight Solid Bar  |  |  |
| Outer diam. x length* x wall thickness              | Manual transaxle             | Left  | Not Applicable   |  |
|   |                              | Right   | "  |  |
|   | Automatic transaxle          | Left  | 23.81 X 331.0mm (.94 x 13.03 in.)  |  |
|   |                              | Right   | 27.06 x 407.3mm (1.07 x 16.03 in.)   |  |
|   | Optional transaxle           | Left  | --   |  |
|   |                              | Right   | --   |  |
| Slip yoke   | Type                         | --  |  |  |
|   | Number of teeth              | --  |  |  |
|   | Spline o.d.                  | --  |  |  |
| Universal joints                                    | Make and mfg. no.            | Inner   | Saginaw Division   |  |
|   |                              | Outer   | Saginaw Division   |  |
|   | Number used                  | 4, 2 On Each Shaft  |  |  |
|   | Type, size, plunge           | Inner   | Tripot Joint, 27 Size 66mm   |  |
|   |                              | Outer   | Rzeppa Joint, Fixed, 32H Size  |  |
|   | Attach (u-bolt, clamp, etc.) | Inboard Joint-Snap Ring, Outboard Joint (Nut/Washer-Clamping) |  |  |
|   | Bearing                      | Type (plain, anti-friction)                                   | Inboard Joint: Ball Bearing, Needle Roller Bearing (Anti-Friction Bearing)<br>Outboard Joint: Ball Bearing |  |
|   |                              | Lubrication (fitting, prepack)                                | Prepacked  |  |
| Drive taken through (torque tube, arms or springs)  | Front Wheel Drive Shafts     |   |  |  |
| Torque taken through (torque tube, arms or springs) | Engine Mounting System       |   |  |  |

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

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 3.1 LITER V6 (191 CID)            |
| Engine Code        | MULTI-PORT FUEL INJECTION RPO LHO |

### Axle Ratio and Tooth Combinations (See 'Power Teams' for axle ratio usage) AUTOMATIC TRANS (MD9)

|   |                |                |   |
|---|----------------|----------------|---|
| Effective final drive ratio (or overall top gear ratio) |                | 2.84           |   |
| Transfr ratio and method(chain, gear, etc)              |                | 1.00 Chain     |   |
| Front drive unit  | Ring gear o.d. | Not Applicable |   |
|   | No. of teeth   | Pinion         | " |
|   |                | Ring gear      | " |

### Front Drive Unit

|  |                         |  |
|--|-------------------------|--|
| Description (integral to trans., etc.) |                         | Planetary Final Drive Integral With Transmission |
| Limited slip differential (type)       |                         | Not Applicable                                   |
| Drive pinion                           | Type                    | "  |
|  | Offset                  | "  |
| No. of differential pinions            |                         | 2  |
| Pinion/differential                    | Adjustment (shim, etc.) | Not Applicable                                   |
|  | Bearing adjustment      | "  |
| Driving wheel bearing (type)           |                         |  |
| Lubricant                              | Capacity L (pt.)        | 8.5 (18.0)                                       |
|  | Type recommended        | Dexron II  |
|  |                         |  |
|  |                         |  |

### Axle Shafts - Front Wheel Drive

|   |                              |                                |  |
|---|------------------------------|--------------------------------|--|
| Manufacturer and number used                        |                              | 2 Per Car                      |  |
| Type (straight, solid bar, tubular, etc.)           | Left                         | Straight, Solid Bar            |  |
|   | Right                        | Straight, Solid Bar            |  |
| Outer diam. x length* x wall thickness              | Manual transaxle             | Left                           | Not Applicable   |
|   |                              | Right                          | "  |
|   | Automatic transaxle          | Left                           | 23.81 x 331.0mm (.94 x 13.03 in.)  |
|   |                              | Right                          | 27.06 x 407.3mm (1.07 x 16.03 in.)   |
|   | Optional transaxle           | Left                           | --   |
|   |                              | Right                          | --   |
| Slip yoke   | Type                         | --                             |  |
|   | Number of teeth              | --                             |  |
|   | Spine o.d.                   | --                             |  |
| Universal joints                                    | Make and mfg. no.            | Inner                          | Saginaw Division   |
|   |                              | Outer                          | Saginaw Division   |
|   | Number used                  |                                | 4, 2 On Each Shaft   |
|   | Type, size, plunge           | Inner                          | Tripot Joint, 27 Size 66mm   |
|   |                              | Outer                          | Rzeppa Joint, Fixed, 32H Size  |
|   | Attach (u-bolt, clamp, etc.) |                                | Inboard Joint-Snap Ring, Outboard Joint (Nut/Washer-Clamping)  |
|   | Bearing                      | Type (plain, anti-friction)    | Inboard Joint: Ball Bearing, Needle Roller Bearing (Anti-Friction Bearing)<br>Outboard Joint: Ball Bearing |
|   |                              | Lubrication (fitting, prepack) | Prepacked  |
| Drive taken through (torque tube, arms or springs)  |                              | Front Wheel Drive Shafts       |  |
| Torque taken through (torque tube, arms or springs) |                              | Engine Mounting System         |  |

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

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

Engine Description  
 Engine Code

3.4 LITER V6 (207 CID)  
 MULTI-PORT FUEL INJECTION RPO LG1

## Axle Ratio and Tooth Combinations

(See 'Power Teams' for axle ratio usage)

AUTOMATIC TRANS (M13)

|   |                |             |
|---|----------------|-------------|
| Effective final drive ratio (or overall top gear ratio) |                | 3.43 (2.40) |
| Transfr ratio and method(chain,gear,etc)                |                |             |
| Front drive unit  | Ring gear o.d. |             |
|   | No. of teeth   | Pinion      |
|   |                | Ring gear   |

## Front Drive Unit

|  |                         |                                |
|--|-------------------------|--------------------------------|
| Description (integral to trans., etc.) |                         | Integral To Transmission       |
| Limited slip differential (type)       |                         | Not Applicable                 |
| Drive pinion                           | Type                    | "                              |
|  | Offset                  | "                              |
| No. of differential pinions            |                         | 2                              |
| Pinion/differential                    | Adjustment (shim, etc.) | None                           |
|  | Bearing adjustment      | None                           |
| Driving wheel bearing (type)           |                         | Sealed Ball Bearing            |
| Lubricant                              | Capacity L (pt.)        | Part Of Automatic Transmission |
|  | Type recommended        | Automatic Transmission Fluid   |

## Axle Shafts - Front Wheel Drive

|   |                              |  |                                       |
|---|------------------------------|--|---------------------------------------|
| Manufacturer and number used                        |                              | Saginaw Division, 2                                |                                       |
| Type (straight, solid bar, tubular, etc.)           | Left                         | Straight, Solid Bar                                |                                       |
|   | Right                        | Straight, Solid Bar                                |                                       |
| Outer diam. x length* x wall thickness              | Manual transaxle             | Left   | 27.1 x 373 mm (1.07 x 14.7 in.)       |
|   |                              | Right  | 27.1 x 373 mm (1.07 x 14.7 in.)       |
|   | Automatic transaxle          | Left   | 27.1 x 373 mm (1.07 x 14.7 in.)       |
|   |                              | Right  | 27.1 x 407 mm (1.07 x 16.0 in.)       |
|   | Optional transaxle           | Left   | Not Available                         |
|   |                              | Right  | "                                     |
| Sip yoke  | Type                         | Not Applicable                                     |                                       |
|   | Number of teeth              | "  |                                       |
|   | Spline o.d.                  | "  |                                       |
| Universal joints                                    | Make and mfg. no.            | Inner  | Saginaw Division                      |
|   |                              | Outer  | Saginaw Division                      |
|   | Number used                  |  | Inboard & Outboard On Each Shaft Asm. |
|   | Type, size, plunge           | Inner  | Tripot - 61.0 Stroke                  |
|   |                              | Outer  | Rzeppa Joint, Fixed Center            |
|   | Attach (u-bolt, clamp, etc.) |  | Retaining Ring                        |
|   | Bearing                      | Type (plain, anti-friction)                        | Inner - Ball & Roller<br>Outer - Ball |
| Lubrication (fitting, prepack)                      |                              | Prepacked  |                                       |
| Drive taken through (torque tube, arms or springs)  |                              | Wishbone Lower Control Arm, Upper MacPherson Strut |                                       |
| Torque taken through (torque tube, arms or springs) |                              | Engine Mounting System                             |                                       |

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

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 3.4 LITER V6 (207 CID)            |
| Engine Code        | MULTI-PORT FUEL INJECTION RPO LQ1 |

### Axle Ratio and Tooth Combinations (See 'Power Teams' for axle ratio usage) MANUAL TRANS (M27)

|   |                |                |    |
|---|----------------|----------------|----|
| Effective final drive ratio (or overall top gear ratio) |                | 3.67 (2.64)    |    |
| Transfr ratio and method(chain, gear, etc)              |                | Not Applicable |    |
| Front drive unit  | Ring gear o.d. | 204.88 mm      |    |
|   | No. of teeth   | Pinion         | 18 |
|   |                | Ring gear      | 66 |

### Front Drive Unit

|  |                         |                                     |
|--|-------------------------|-------------------------------------|
| Description (integral to trans., etc.) |                         | Integral To Transmission            |
| Limited slip differential (type)       |                         | Not Applicable                      |
| Drive pinion                           | Type                    | "                                   |
|  | Offset                  | "                                   |
| No. of differential pinions            |                         | 2                                   |
| Pinion/differential                    | Adjustment (shim, etc.) | None                                |
|  | Bearing adjustment      | None                                |
| Driving wheel bearing (type)           |                         | Sealed Ball Bearing                 |
| Lubricant                              | Capacity L (pt.)        | 2.1 (4.41)                          |
|  | Type recommended        | Sychromesh Transmission Fluid (STF) |

### Axle Shafts - Front Wheel Drive

|   |                              |  |                                       |  |
|---|------------------------------|--|---------------------------------------|--|
| Manufacturer and number used                        |                              | Saginaw Division, 2                                |                                       |  |
| Type (straight, solid bar, tubular, etc.)           | Left                         | Straight Solid                                     |                                       |  |
|   | Right                        | Straight Solid                                     |                                       |  |
| Outer diam. x length* x wall thickness              | Manual transaxle             | Left   | 27.1 x 373 mm (1.07 x 14.7 in.)       |  |
|   |                              | Right  | 27.1 x 373 mm (1.07 x 14.7 in.)       |  |
|   | Automatic transaxle          | Left   | 27.1 x 373 mm (1.07 x 14.7 in.)       |  |
|   |                              | Right  | 27.1 x 407 mm (1.07 x 16.0 in.)       |  |
|   | Optional transaxle           | Left   | Not Available                         |  |
|   |                              | Right  | "                                     |  |
| Slip yoke   | Type                         | Not Applicable                                     |                                       |  |
|   | Number of teeth              | "  |                                       |  |
|   | Spline o.d.                  | "  |                                       |  |
| Universal joints                                    | Make and mfg. no.            | Inner  | Saginaw Division                      |  |
|   |                              | Outer  | Saginaw Division                      |  |
|   | Number used                  |  | Inboard & Outboard On Each Shaft Asm. |  |
|   | Type, size, plunge           | Inner  | Tripot Joint - 61.0 mm Stroke         |  |
|   |                              | Outer  | Rzeppa Joint, Fixed Center            |  |
|   | Attach (u-bolt, clamp, etc.) |  | Retaining Ring                        |  |
|   | Bearing                      | Type (plain, anti-friction)                        | Inner - Ball & Roller<br>Outer - Ball |  |
|   |                              | Lubrication (fitting, prepack)                     | Prepacked                             |  |
| Drive taken through (torque tube, arms or springs)  |                              | Wishbone Lower Control Arm, Upper MacPherson Strut |                                       |  |
| Torque taken through (torque tube, arms or springs) |                              | Engine Mounting System                             |                                       |  |

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

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

Body Type And/Or

Engine Displacement

COUPE / SEDAN (ALL ENGINES EXCEPT 3.4L)

### Suspension - General Including Electronic Controls

|                                 |   |                                      |   |
|---------------------------------|---|--------------------------------------|---|
| Car leveling                    | Std./opt./n.a.                                      | Not Available                        |   |
|                                 | Manual/automatic control                            |                                      |   |
|                                 | Type (air/hydraulic)                                | Air                                  |   |
|                                 | Primary/assist spring                               | Not Available                        |   |
|                                 | Rear only/4 wheel leveling                          | "                                    |   |
|                                 | Single/dual rate spring                             | "                                    |   |
|                                 | Single/dual ride heights                            | "                                    |   |
| Provision for jacking           | Body Rails, Under Rocker Panels                     |                                      |   |
| Shock absorber damping controls | Standard/opt./n.a.                                  | Not Available                        |   |
|                                 | Manual/automatic control                            | "                                    |   |
|                                 | Number of damping rates                             | "                                    |   |
|                                 | Type of actuation (manual/electric motor/air, etc.) | "                                    |   |
|                                 | s<br>e<br>n<br>s<br>o<br>r<br>s                     | Lateral acceleration                 | " |
|                                 |   | Deceleration                         | " |
|                                 |   | Acceleration                         | " |
| Road surface                    |   | "                                    |   |
| Shock absorber (front & rear)   | Type  | MacPherson Strut Front, Tubular Rear |   |
|                                 | Make  | Delco Products Division              |   |
|                                 | Piston diameter                                     | 35.0 mm (1.38 in.)                   |   |
|                                 | Rod diameter  | 25.0 mm (1.00 in.)                   |   |

### Suspension - Front

|                      |   |  |
|----------------------|---|--|
| Type and description | MacPherson Strut With Coil Springs, One-Piece "A" Configuration Lower Control Arms. |  |
| Travel*              | Full jounce   | 83mm (3.27 in.)  |
|                      | Full rebound  | 95mm (3.74 in.)  |
| Spring               | Type:(coil,leaf,other&matl)   | Coil   |
|                      | Insulators (type & matl)  | Rubber   |
|                      | Size:(coil design height & i.d.)  | 200.3mm (7.89 in.); 173mm (6.81 in.)                           |
|                      | Spring rate N/mm (lb./in.)  | 19.5 (172.6)   |
|                      | Rate @ wheel N/mm (lb./in.)   | 22.3 (197.4)   |
| Stabilizer           | Type(link,linkless,frmless)   | Bar, Standard, All Applications: Specific For Sport Suspension |
|                      | Material & bar diameter   | Steel; 28mm (1.10 in.) Std.; 30mm (1.18 in.) Sport             |

### Suspension - Rear

|                       |   |   |
|-----------------------|---|---|
| Type and description  | Tri-Link Independent With Transverse Leaf Spring, Tubular Struts, Large Lateral Links Attached To Body Cross Member |   |
| Travel*               | Full jounce   | 107mm (4.21 in.)  |
|                       | Full rebound  | 115mm (4.53 in.)  |
| Spring                | Type:(coil,leaf,other&matl)   | Leaf, Fiberglass  |
|                       | Size (length x width, coil design height & i.d.)  | Not Applicable  |
|                       | Spring rate N/mm (lb/in)  | 26.0  |
|                       | Rate @ wheel N/mm (lb/in)   | 19.0  |
|                       | Insulators(type & material)   | Rubber  |
|                       | If leaf   | No. of leaves   |
| Shackle(comp or tens) |   | --  |
| Stabilizer            | Type(link,linkless,frmless)   | Link  |
|                       | Material & bar diameter   | Steel, 10mm (.394 in.) Base, 12mm (.472 in.) For Sport Suspension |
| Track bar (type)      | Welded Inverted U-Channel   |   |

\* Define load condition:

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*)         

## METRIC (U.S. Customary)

Body Type And/Or

Engine Displacement

COUPE WITH 3.4L DOHC ENGINE

### Suspension - General Including Electronic Controls

|                                 |   |                                      |   |
|---------------------------------|---|--------------------------------------|---|
| Car leveling                    | Std./opt./n.a.                                      | Not Available                        |   |
|                                 | Manual/automatic control                            |                                      |   |
|                                 | Type (air/hydraulic)                                | Air                                  |   |
|                                 | Primary/assist spring                               | Not Available                        |   |
|                                 | Rear only/4 wheel leveling                          | "                                    |   |
|                                 | Single/dual rate spring                             | "                                    |   |
|                                 | Single/dual ride heights                            | "                                    |   |
| Provision for jacking           | Body Rails, Under Rocker Panels                     |                                      |   |
| Shock absorber damping controls | Standard/opt./n.a.                                  | Not Available                        |   |
|                                 | Manual/automatic control                            | "                                    |   |
|                                 | Number of damping rates                             | "                                    |   |
|                                 | Type of actuation (manual/electric motor/air, etc.) | "                                    |   |
|                                 | s<br>e<br>n<br>s<br>o<br>r<br>s                     | Lateral acceleration                 | " |
|                                 |   | Deceleration                         | " |
|                                 |   | Acceleration                         | " |
| Road surface                    |   | "                                    |   |
| Shock absorber (front & rear)   | Type  | MacPherson Strut Front, Tubular Rear |   |
|                                 | Make  | Delco Products Division              |   |
|                                 | Piston diameter                                     | 35.0 mm (1.38 in.)                   |   |
|                                 | Rod diameter  | 25.0 mm (1.00 in.)                   |   |

### Suspension - Front

|                      |   |  |
|----------------------|---|--|
| Type and description | MacPherson Strut With Coil Springs, One-Piece "A" Configuration Lower Control Arms. |  |
| Travel*              | Full jounce   | 83mm (3.27 in.)  |
|                      | Full rebound  | 95mm (3.74 in.)  |
| Spring               | Type (coil, leaf, other & matl)   | Coil   |
|                      | Insulators (type & matl)  | Rubber   |
|                      | Size (coil design height & i.d.)  | 200.3mm (7.89 in.); 173mm (6.81 in.)                           |
|                      | Spring rate N/mm (lb./in.)  | 23.5 (208.0)   |
|                      | Rate @ wheel N/mm (lb./in.)   | 26.8 (237.2)   |
| Stabilizer           | Type (link, linkless, frmiess)  | Bar, Standard, All Applications; Specific For Sport Suspension |
|                      | Material & bar diameter   | Steel: 34mm (1.34 in.)   |

### Suspension - Rear

|                        |   |   |
|------------------------|---|---|
| Type and description   | Tri-Link Independent With Transverse Leaf Spring, Tubular Struts, Large Lateral Links Attached To Body Cross Member |   |
| Travel*                | Full jounce   | 107mm (4.21 in.)  |
|                        | Full rebound  | 115mm (4.53 in.)  |
| Spring                 | Type (coil, leaf, other & matl)   | Leaf, Fiberglass  |
|                        | Size (length x width, coil design height & i.d.)  | Not Applicable  |
|                        | Spring rate N/mm (lb/in)  | 26.0  |
|                        | Rate @ wheel N/mm (lb/in)   | 19.0  |
|                        | Insulators (type & material)  | Rubber  |
|                        | If leaf   | No. of leaves   |
| Shackle (comp or tens) |   | --  |
| Stabilizer             | Type (link, linkless, frmiess)  | Link  |
|                        | Material & bar diameter   | Steel, 10mm (.394 in.) Base, 12mm (.472 in.) For Sport Suspension |
| Track bar (type)       | Welded Inverted U-Channel   |   |

\* Define load condition:

# MVMA Specifications

METRIC (U.S. Customary)

Body Type And/Or

Engine Displacement

Brakes - Service

Vehicle Line LUMINA

Model Year 1991 Issued 6-90 Revised(\*) 9-90

COUPE / SEDAN

|   |                               |  |                                  |
|---|-------------------------------|--|----------------------------------|
| Description   |                               | Vacuum Powered, Hydraulically Actuated Four Wheel Disc Standard. Antilock Brake System Optional. |                                  |
| Manufacturer and brake type (std., opt., n.a.)        | Front (disc or drum)          | Disc, Delco Moraine NDH  |                                  |
|   | Rear (disc or drum)           | Disc, Delco Moraine NDH  |                                  |
| Valving type(prop, delay, metering, other)            |                               | Proportioning  |                                  |
| Power brake (std., opt., n.a.)                        |                               | Standard   |                                  |
| Booster type(rmt, intgrl, vac., hyd., etc.)           |                               | Vacuum Standard; Hydraulic With ABS  |                                  |
| Vacuum  | Source (inline, pump, etc.)   | Engine   |                                  |
|   | Reservoir (volume cu. in.)    |  |                                  |
|   | Pump-type                     | None   |                                  |
| Traction Control                                      | Operational speed range       | None   |                                  |
|   | Type engine intervention      |  |                                  |
| Anti-lock device                                      | Front/rear (std., opt., n.a.) | Not Available  |                                  |
|   | Manufacturer                  | "  |                                  |
|   | Type (electronic, mech.)      | "  |                                  |
|   | Number sensors or circuits    | "  |                                  |
|   | No. anti-lock hvd. circuits   | "  |                                  |
|   | Integral or add-on system     | "  |                                  |
|   | Yaw control (yes, no)         | "  |                                  |
| Hydraulic power source                                | "                             |  |                                  |
| Effective area sq. cm. (sq. in.)*                     |                               | 283.9 (44.0)   |                                  |
| Gross Eng area sq cm (sq in)** (F/R)                  |                               |  |                                  |
| Swept area sq cm (sq in)*** (F/R)                     |                               | 1090.9 (169.09)  |                                  |
| Rotor   | Outer working diameter        | F/R  | 267/256.5 mm (10.51/10.1 in.)    |
|   | Inner working diameter        | F/R  |                                  |
|   | Thickness                     | F/R  | 26.3/12.5 mm (1.04/.492 in.)     |
|   | Matl & type (vented/sld)      | F/R  | Composite Vented/Composite Solid |
| Drum  | Diameter & width              | F/R  | Not Applicable                   |
|   | Type and materia              | F/R  | Not Applicable                   |
| Wheel cylinder bore                                   |                               |  |                                  |
| Master cylinder                                       | Bore/stroke                   | F/R  |                                  |
| Pedal arc ratio                                       |                               | 3.5:1  |                                  |
| Line pressure at 445 N (100 lb.) pedal load kPa (psi) |                               |  |                                  |
| Lining clearance                                      |                               | F/R  |                                  |
| Brake lining  | Front wheel                   | Bonded or riveted  | Integrally Molded                |
|   |                               | Rivet size   | --                               |
|   |                               | Manufacturer   | Delco Moraine NDH                |
|   |                               | Lining code ****   | DM128FE                          |
|   |                               | Material   | Semi-Metallic                    |
|   |                               | *** Pri. or out-brd  | 119.4 x 38.1 mm/(4.7 x 1.5 in.)  |
|   |                               | Size Sec. or in-brd  | 119.4 x 38.1 mm/(4.7 x 1.5 in.)  |
|   | Shoe thcknss (no lng)         | 12.19 mm (.48 in.)   |                                  |
|   | Rear wheel                    | Bonded or riveted  | Integrally Molded                |
|   |                               | Manufacturer   | Delco Moraine NDH                |
|   |                               | Lining code ****   | DM128FE                          |
|   |                               | Material   | Semi-Metallic                    |
|   |                               | *** Pri. or out-brd  | 83.8 x 33.0 mm/(3.3 x 1.3 in.)   |
|   |                               | Size Sec. or in-brd  | 102.9 x 33.0 mm/(4.05 x 1.3 in.) |
| Shoe thcknss (no lng)                                 |                               | 8.64 mm (.34 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 circum.)  
 (Disc brake: Square of Outer Working Dia. - Square of Inner Working Dia. X Pi/2 for each brake.)  
 \*\*\*\* Size for drum brakes includes length x width x thickness.  
 \*\*\*\*\* Manufacturer I.D., catalog for formulation designation and coefficient of friction classification.

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

METRIC (U.S. Customary)

Body Type And/Or  
 Engine Displacement

COUPE / SEDAN

## Tires And Wheels (Standard)

|               |   |                   |  |
|---------------|---|-------------------|--|
| Tires         | Size (load range, ply)                                      |                   | P195/75R14-ALS BW Std. - Base                  |
|               | Type (bias, radial, etc.)                                   |                   | Steel Belted Radial (2 Ply)                    |
|               | Inflation pressure (cold) for recommended max. vehicle load | Front kPa (psi)   | 205 (30)                                       |
|               |   | Rear kPa (psi)    | 205 (30)                                       |
|               | Rev/mile—at 70 km/h(45mph)                                  |                   | 508  |
| Wheels        | Type & material   |                   | Stamped Steel                                  |
|               | Rim (size & flange type)                                    |                   | 14 x 5.5                                       |
|               | Wheel offset  |                   | 39.5mm (1.56 in.)                              |
|               | Attachment  | Type (bolt, stud) | Stud (M12 x 1.5)                               |
|               |   | Circle diameter   | 115mm (4.52 in.)                               |
| Number & size |   | 5 & M12           |  |
| Spare         | Tire and wheel  |                   | Compact Spare T125/70D15 15 x 4 Wheel          |
|               | Storage position & location (describe)                      |                   | Horizontal, Under Trunk Compartment Load Floor |

## Tires And Wheels (Optional)

|   |                         |
|---|-------------------------|
| Tire size (load range, ply)   | P205/70R15 - AL2 BW     |
| Type (bias, radial, steel, nylon, etc.)   | Steel Belted Radial     |
| Wheel (type & material)   | Stamped Steel           |
| Rim (size, flange type and offset)  | 15 x 6 (42mm Offset)    |
| Tire size (load range, ply)   | P205/70R15-AL2 BW       |
| Type (bias, radial, steel, nylon, etc.)   | Steel Belted Radial     |
| Wheel (type & material)   | Cast Aluminum           |
| Rim (size, flange type and offset)  | 15 x 6 (40 mm Offset)   |
| Tire size (load range, ply)   | P215/60R16 - AL2 BW     |
| Type (bias, radial, steel, nylon, etc.)   | Steel Belted Radial     |
| Wheel (type & material)   | Cast Aluminum           |
| Rim (size, flange type and offset)  | 16 x 6.5 (38mm Offset)  |
| Tire size (load range, ply)   | P225/60R16 - AL3 BW     |
| Type (bias, radial, steel, nylon, etc.)   | Steel Belted Radial     |
| Wheel (type & material)   | Cast Aluminum           |
| Rim (size, flange type and offset)  | 16 x 6.5 (38 mm Offset) |
| Spare tire and wheel size<br><br>(if configuration is different than road tire or wheel, describe optional spare tire and/or wheel location & storage position) |                         |

## Brakes - Parking

|                                 |  |  |
|---------------------------------|--|--|
| Type of control                 |  | Multi-Stroke Foot Pedal Application, Hand Release                |
| Location of control             |  | Hand Release, Under Instrument Panel, Left Of Driver's Left Knee |
| Operates on                     |  | Rear Service Brakes  |
| If separate from service brakes | Type (internal or external)              | --   |
|                                 | Drum diameter                            | --   |
|                                 | Lining size (length x width x thickness) | --   |



# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

Body Type And/Or  
 Engine Displacement

COUPE / SEDAN

### Steering

|  |   |  |   |                                  |
|--|---|--|---|----------------------------------|
| Manual (std., opt., n.a.)                                  |   | Not Available                                  |   |                                  |
| Power (std., opt., n.a.)                                   |   | Standard                                       |   |                                  |
| Adjustable steering wheel/ column (tilt, telescope, other) | Type                                      | Tilt   |   |                                  |
|  | Manufacturer                              | Saginaw Division                               |   |                                  |
|  | (std., opt., n.a.)                        | Optional For All Except SE; Standard On SE     |   |                                  |
| Wheel diameter ** (W9) SAE J1100                           | Manual                                    | Not Available                                  |   |                                  |
|  | Power                                     | 380.0 mm                                       |   |                                  |
| Turning diameter m (ft.)                                   | Out-side front                            | Wall to wall (l. & r.)                         | Not Available   |                                  |
|  |   | Curb to curb (l. & r.)                         | FE1 - 11.2 (36.7); F41 - 11.88 (39.0); FE3 - 11.88 (39.0) |                                  |
|  | In-side rear                              | Wall to wall (l. & r.)                         | Not Available   |                                  |
|  |   | Curb to curb (l. & r.)                         | 7.18 (23.6)   |                                  |
| Scrub Radius *   |   | Base - 15.78mm; Touring - 16.39; Sport - 24.05 |   |                                  |
| Manual   | Gear                                      | Type   | Not Available   |                                  |
|  |   | Manufacturer                                   | "   |                                  |
|  |   | Ratios   | Gear  | "                                |
|  |   |  | Overall   | "                                |
|  | No. wheel turns(stop to stop)             |  | "   |                                  |
| Power  | Type (coaxial, elec. hyd., etc.)          |  | Hydraulic   |                                  |
|  | Manufacturer                              |  | Saginaw Division  |                                  |
|  | Gear                                      | Type   | End Take-Off Rack And Pinion                              |                                  |
|  |   | Ratios   | Gear  |                                  |
|  |   |  | Overall   | 17.5:1 FE1, 15.7:1 F41, 14:1 FE3 |
|  | Pump (drive)                              |  | Belt  |                                  |
| No. wheel turns(stop to stop)                              |   | 3.05 FE1, 2.60 F41, 2.26 FE3                   |   |                                  |
| Linkage  | Type                                      |  | End Take-Off  |                                  |
|  | Location (front or rear of wheels, other) |  | Rear  |                                  |
|  | Tie Rods (one or two)                     |  | 2   |                                  |
| Steering axis  | Inclination at camber (deg.)              |  | 13.4  |                                  |
|  | Bear-ings (type)                          | Upper  | Ball Bearing  |                                  |
|  |   | Lower  | Ball Joint  |                                  |
|  |   | Thrust   | Not Applicable  |                                  |
| Steering spindle/knuckle & joint type                      |   | MacPherson Strut                               |   |                                  |

\* The horizontal distance in the front elevation between wheel centerline and kingpin (ball joint) axis at ground.  
 \*\* See Page 22.

# ○ MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

Body Type And/Or  
 Engine Displacement

COUPE/SEDAN

### Wheel Alignment

|                                |                           |                                 |                       |
|--------------------------------|---------------------------|---------------------------------|-----------------------|
| Front wheel at curb mass (wt.) | Service checking          | Caster (deg.)                   | 2.0 (+/-) .5          |
|                                |                           | Camber (deg.)                   | 0.7 (+/-) .5          |
|                                |                           | Toe-in outside track - mm (in.) | 0.0 (+/-) .1/Wheel-In |
|                                | Service reset*            | Caster (deg.)                   | Pre-set               |
|                                |                           | Camber (deg.)                   | 0.7 (+/-) .5          |
|                                |                           | Toe-in - mm(in.)                | 0.0 (+/-) .1/Wheel-In |
|                                | Periodic M.V. in-spection | Caster (deg.)                   | Not Available         |
|                                |                           | Camber (deg.)                   | "                     |
|                                |                           | Toe-in - mm(in.)                | "                     |
| Rear wheel at curb mass (wt.)  | Service checking          | Camber (deg.)                   | Not Applicable        |
|                                |                           | Toe-in outside track - mm (in.) | "                     |
|                                | Service reset*            | Camber (deg.)                   | "                     |
|                                |                           | Toe-in - mm(in.)                | "                     |
|                                | Periodic M.V. in-spection | Camber (deg.)                   | "                     |
|                                |                           | Toe-in - mm(in.)                | "                     |

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

### ○ Electrical - Instruments and Equipment

|  |   |   |
|--|---|---|
| Speedometer  | Type (analog, digital, std., opt.)  | Analog/Analog                                 |
|  | Trip odometer (std., opt., n.a.)  | Not Available/Mechanical                      |
| Head-up display                                    | Std., opt., not avail.  | Not Available                                 |
|  | Type - Secondary, Opto-electronic   | "   |
|  | Speedometer   | Digital                                       |
|  | Status/warn. indicators - Turn signals, high beam, low fuel, check gauges | "   |
|  | Brightness control  | Day/night mode, adj.                          |
| EGR maintenance indicator                          |   | "   |
| Charge indicator                                   | Type  | Not Available                                 |
|  | Warning device (light, audible)   | Tell-Tale Light                               |
| Temperature indicator                              | Type  | Not Available/Analog                          |
|  | Warning device  | Tell-Tale Light                               |
| Oil pressure indicator                             | Type  | Not Available/Analog                          |
|  | Warning device  | Tell-Tale Light                               |
| Fuel indicator                                     | Type  | Analog/Analog                                 |
|  | Warning device  | Not Available                                 |
| Windshield wiper                                   | Type (standard)   | Modular/Depressed Park                        |
|  | Type (optional)   | Pulse Wiper                                   |
|  | Blade length  | 508 mm (20.0 in.)                             |
|  | Swept area sq cm (sq in)  | Coupe: 6692.0 (1037.3)/Sedan: 6742.7 (1045.1) |
| Windshield washer                                  | Type (standard)   | Wet-Arm System                                |
|  | Type (optional)   | Not Available                                 |
|  | Fluid level indicator   | Not Available                                 |
| Rear window wiper, wiper/washer (std., opt., n.a.) |   | Not Available                                 |
| Horn   | Type  | Vibrator                                      |
|  | Number used   | 2   |
| Other  | PRNDL   | Mechanical/Mechanical                         |
|  | Odometer  | Mechanical/Mechanical                         |
|  | Tachometer  | Not Available/Analog                          |

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*)           

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 2.5 LITER L4 (151 CID)            |
| Engine Code        | ELECTRONIC FUEL INJECTION RPO LR8 |

### Electrical - Supply System

|            |                            |                          |
|------------|----------------------------|--------------------------|
| Battery    | Manufacturer               | Delco Remy               |
|            | Model, std., (opt.)        | 75 - 630                 |
|            | Voltage                    | 12                       |
|            | Amps at 0 deg F cold crnk  | 630                      |
|            | Minutes-reserve capacity   | 90                       |
|            | Amps/hrs. - 20 hr. rate    | 54                       |
|            | Location                   | Engine Compartment       |
| Alternator | Manufacturer               | Delco Remy               |
|            | Rating (idle/max. rpm)     | 36/100 Amps              |
|            | Ratio (alt. crank/rev.)    | 2.74:1 Alternator: Crank |
|            | Output at idle (rpm, park) | 62 Amps                  |
|            | Optional (type & rating)   | Not Applicable           |
| Regulator  | Type                       | Integral With Alternator |

### Electrical - Starting System

|             |                                   |                               |
|-------------|-----------------------------------|-------------------------------|
| Motor       | Manufacturer                      | Delco Remy                    |
|             | Curr. dr. -29 (-20) deg C(F)      | 350 Amps                      |
|             | Power rating kw (hp)              | 1.4 (1.9)                     |
| Motor drive | Engagement type                   | Solenoid Operated Shift Lever |
|             | Pinion engages from (front, rear) | Front                         |

### Electrical - Ignition System

|             |  |   |
|-------------|--|---|
| Type        | Electronic (std., opt., n.a.)                | Electronic - Direct Ignition  |
|             | Other (specify)                              | Composite Unit Consists Of Two Coils & Electronic Control Module        |
| Coil        | Manufacturer                                 | Delco Remy  |
|             | Model  | 1103781   |
|             | Current                                      | Engine stopped - A<br>Less Than 100 ma<br>Engine idling - A<br>5-6 Amps |
| Spark plug  | Manufacturer                                 | AC/Rochester Products   |
|             | Model  | R43TS6  |
|             | Thread (mm)                                  | 14 x 1.25   |
|             | Tightening torque<br>Newton meters (lb. ft.) | 10 - 20 (7-15)  |
|             | Gap  | 1.5 mm (.060)   |
| Distributor | Number per cylinder                          | 1   |
|             | Manufacturer                                 | Not   |
|             | Model  | Applicable  |

### Electrical - Suppression

|                  |               |
|------------------|---------------|
| Locations & type | Not Available |
|------------------|---------------|

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

Engine Description  
 Engine Code

3.1 LITER V6 (191 CID)  
 MULTI-PORT FUEL INJECTION RPO LHO

### Electrical - Supply System

|                          |                            |                          |
|--------------------------|----------------------------|--------------------------|
| Battery                  | Manufacturer               | Delco Remy               |
|                          | Model, std., (opt.)        | SAE 75-525 (1981967)     |
|                          | Voltage                    | 12                       |
|                          | Amps at 0 deg F cold crnk  | 525                      |
|                          | Minutes-reserve capacity   | 90                       |
|                          | Amps/hrs. - 20 hr. rate    | 54                       |
| Location                 |                            | Engine Compartment       |
| Alternator               | Manufacturer               | Delco Remy               |
|                          | Rating(idle/max rpm drive) | 36/100 Amps              |
|                          | Ratio (alt. crank/rev.)    | 2.75                     |
|                          | Output at idle (rpm, park) | 54 Amps                  |
| Optional (type & rating) |                            | None                     |
| Regulator                | Type                       | Integral With Alternator |

### Electrical - Starting System

|             |                                   |                               |
|-------------|-----------------------------------|-------------------------------|
| Motor       | Manufacturer                      | Delco Remy                    |
|             | Curr. dr. -29 (-20) deg C(F)      | 350 Amps                      |
|             | Power rating kw (hp)              | 1.4 (1.9)                     |
| Motor drive | Engagement type                   | Solenoid Operated Shift Lever |
|             | Pinion engages from (front, rear) | Front                         |

### Electrical - Ignition System

|                     |  |  |
|---------------------|--|--|
| Type                | Electronic (std. opt. n.a.)                  | Electronic - Direct ignition                                       |
|                     | Other (specify)                              | Composite Unit Consists Of Three Coils & Electronic Control Module |
| Coil                | Manufacturer                                 | Delco Remy   |
|                     | Model  | 1103759  |
|                     | Current                                      | Engine stopped - A<br>8-9 Amps<br>Engine idling - A                |
| Spark plug          | Manufacturer                                 | AC/Rochester Products  |
|                     | Model  | R44LTSM  |
|                     | Thread (mm)                                  | 14 x 1.25  |
|                     | Tightening torque<br>Newton meters (lb. ft.) | 9-20 (7-15)  |
|                     | Gap  | 1.14mm (.045 in.)  |
| Number per cylinder |  | 1  |
| Distributor         | Manufacturer                                 | Not  |
|                     | Model  | Applicable   |

### Electrical - Suppression

|                  |               |
|------------------|---------------|
| Locations & type | Not Available |
|------------------|---------------|

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

|                    |                                   |
|--------------------|-----------------------------------|
| Engine Description | 3.4 LITER V6 (207 CID)            |
| Engine Code        | MULTI-PORT FUEL INJECTION RPO LQ1 |

### Electrical - Supply System

|            |                           |                          |
|------------|---------------------------|--------------------------|
| Battery    | Manufacturer              | Delco Remy               |
|            | Model, std., (opt.)       | Standard                 |
|            | Voltage                   | 12                       |
|            | Amps at 0 deg F cold crnk | 690 CCA                  |
|            | Minutes-reserve capacity  | 90                       |
|            | Amps/hrs. - 20 hr. rate   | 54                       |
|            | Location                  | Engine Compartment       |
| Alternator | Manufacturer              | Delco Remy               |
|            | Rating (idle/max. rpm)    | 42/105 Amps              |
|            | Ratio (alt. crank/rev.)   | 2.75                     |
|            | Output at idle (rpm park) | 54                       |
|            | Optional (type & rating)  | None                     |
| Regulator  | Type                      | Integral With Alternator |

### Electrical - Starting System

|             |                                   |                               |
|-------------|-----------------------------------|-------------------------------|
| Motor       | Manufacturer                      | Delco Remy                    |
|             | Current drain deg C (F)           | 395 Amps                      |
|             | Power rating kw (hp)              | 1.6 (2.1)                     |
| Motor drive | Engagement type                   | Solenoid Operated Shift Lever |
|             | Pinion engages from (front, rear) | Front                         |

### Electrical - Ignition System

|             |   |  |                  |
|-------------|---|--|------------------|
| Type        | Electronic (std., opt., n.a.)             | Direct Ignition System   |                  |
|             | Other (specify)                           | Composite Unit Consists of Three Coils & Electronic Control Module |                  |
| Coil        | Manufacturer                              | Delco Remy   |                  |
|             | Model                                     |  |                  |
|             | Current                                   | Engine stopped - A   | Less Than 100 ma |
|             |   | Engine idling - A  | 8-9 Amps         |
| Spark plug  | Manufacturer                              | AC Rochester Division  |                  |
|             | Model                                     | R42LTSM  |                  |
|             | Thread (mm)                               | 14 x 1.25  |                  |
|             | Tightening torque Newton meters (lb. ft.) | 10 - 20 (7.38 - 14.75)   |                  |
|             | Gap                                       | 1.14 mm (.045 in.)   |                  |
|             | Number per cylinder                       | One  |                  |
| Distributor | Manufacturer                              | Not Applicable   |                  |
|             | Model                                     | "  |                  |

### Electrical - Suppression

|                  |  |
|------------------|--|
| Locations & type |  |
|------------------|--|

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

METRIC (U.S. Customary)

Body Type

COUPE / SEDAN

## Body

|                               |   |
|-------------------------------|---|
| Structure                     | Unitized Body - Frame. Body Side Assembly Includes Full Drawn Quarter Panels. Fully Stamped Inner/Outer Door Panels With Header Extending Into Roof. Full-Length Deck Lid Inner/Outer Panels, Full-Drawn Floor Pan.                   |
| Bumper System<br>Front - Rear | Body Color Soft Fascia, Honeycomb Absorber And Rigid Reinforcing Bar Used At Both Front And Rear.   |
| Anti-Corrosion Treatment      | Double-Sided Galvanizing Of All Major Body/Sheet Metal Inner/Outer Panels Including Hood, Deck Lid, Doors As Well As Rear And End Panel, Plenum, Fenders, Compartment Pan, Quarter Panels, Rocker Panels And Wheelhouse Outer Panels. |

## Body - Miscellaneous Information

|   |  |   |
|---|--|---|
| Type of finish (lacquer, enamel, other)                         | Base Coat-Clear Coat Acrylic Enamel Over ELPO Primer |   |
| Hood  | Material & mass                                      | Steel, 17.3 kg  |
|   | Hinge location (front, rear)                         | Rear  |
|   | Type (counterbalance, prop)                          | Gas Charged Strut                                     |
|   | Release control (int., ext.)                         | Internal  |
| Trunk lid   | Material & mass                                      | Steel   |
|   | Type (counterbalance, other)                         | Dual Torque Rods                                      |
|   | Internal release control (elec., mech., n.a.)        | Electric, Optional                                    |
| Hatch-back lid  | Material & mass                                      | Not Available   |
|   | Type (counterbalance, other)                         | "   |
|   | Internal release control (elec., mech., n.a.)        | "   |
| Tailgate  | Material & mass                                      | "   |
|   | Type (drop, lift, door)                              | "   |
|   | Internal release control (elec., mech., n.a.)        | "   |
| Vent window control (crank, friction, pivot, power)             | Front  | Not Applicable  |
|   | Rear   | "   |
| Window regulator type (cable, tape, flex drive, etc.)           | Front  | Single Left Arm Regulator                             |
|   | Rear   | Tape  |
| Seat cushion type (e.g., 60/40, bucket, bench wire, foam, etc.) | Front  | Bench (Base), 60/40 (Custom), Tubular Frame/Foam      |
|   | Rear   | Bench (Base & Custom), Wire Grid W/Foam               |
|   | 3rd seat   | Not Applicable  |
| Seat back type (e.g., 60/40, bucket, bench wire, foam, etc.)    | Front  | Split Back (Base), 60/40 (Custom), Tubular Frame/Foam |
|   | Rear   | 1-Piece Fixed (Base & Custom)                         |
|   | 3rd seat   | Not Applicable  |

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*)         

METRIC (U.S. Customary)

Body Type

COUPE / SEDAN

## Restraint System

| Seating Position |   | Left        | Center                                      | Right                                       |
|------------------|---|-------------|---|---|
| Active           | Type & description (lap & shoulder belt, lap belt, etc.)  | First seat  | Lap Belt<br>Manual Adjustment               |   |
|                  |   | Second seat | 3 Point Single Loop<br>W/Shoulder Retractor | Lap Belt<br>Manual Adjustment               |
|                  | Standard/<br>optional   | Third seat  |   | 3 Point Single Loop<br>W/Shoulder Retractor |
| Passive          | Type & description (air bag, motorized-2-point belt, fixed belt, knee bolster, manual-lap belt) | First seat  | 3-Point Door Mounted<br>Dual Retractor      | 3-Point Door Mounted<br>Dual Retractor      |
|                  |   | Second seat |   |   |
|                  | Standard/<br>optional   | Third seat  |   |   |

| Glass  | SAE Ref No   | COUPE   | SEDAN                |
|--|--|---|----------------------|
|  | Windshield glass exposed surface area sq.cm.(sq.in.) | S1  | 12,337 (1,912)       |
| Side glass exposed surface area sq. cm. (sq. in.) - total 2- sides | S2   | 6,802 (1,054), Door<br>3,020 (468), Qtr. Wdo. | 11,528 (1,787)<br>-- |
| Backlight glass exposed surface area sq.cm.(sq.in.)                | S3   | 8,559 (1,327)                                 | 6,410 (994)          |
| Total glass exposed surface area sq. cm. (sq. in.) (Flat area)     | S4   | 30,718 (4,761)                                | 28,838 (4,470)       |
| Windshield glass (type)  |  | Curved-2nd Laminated Float                    |                      |
| Side glass (type)  |  | Curved-Tempered Float                         |                      |
| Backlight glass (type)   |  | Curved-Tempered Float                         |                      |

## Headlamps

|  |                                |
|--|--------------------------------|
| Description - sealed beam, halogen, replaceable bulb, etc. | Halogen, Replacement Bulb Unit |
| Shape  | Rectangular                    |
| Lo-beam type (2A1, 2B1, 2C1, etc.)                         | Not Available                  |
| Quantity   | 2                              |
| Hi-beam type (1A1, 2A1, 1C1, 2C1, etc.)                    | Not Available                  |
| Quantity   | 2                              |

## Frame

|   |   |
|---|---|
| Type and description (separate frame, unitized frame, partially-unitized frame) | Unitized Body/Frame, Bolted-On Powertrain Cradle With Mounting Provisions For Suspension And Engine Mounts. |
|---|---|

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

METRIC (U.S. Customary)

Body Type

|       |       |
|-------|-------|
| COUPE | SEDAN |
|-------|-------|

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

|   |   |                                      |
|---|---|--------------------------------------|
| Air conditioning (manual, auto, temp control) |   | Optional, Manual-Electronic Controls |
| Clock (digital, analog)                       |   | Standard, Digital                    |
| Compass / thermometer                         |   | Not Available                        |
| Console (floor, overhead)                     |   | Optional, Floor                      |
| Defroster, elec. backlight                    |   | Optional                             |
| Electronic                                    | Diagnostic monitor (integrated, individual)       | Not Available                        |
|   | Instrument cluster (list instruments)             | Not Available                        |
|   | Keyless entry                                     | Not Available                        |
|   | Tripminder (avg. spd, fuel)                       | Not Available                        |
|   | Voice alert (list items)                          | Not Available                        |
|   | Other   |                                      |
| Fuel door lock (remote, key, electric)        |   |                                      |
| Lamps   | Auto head on/off delay, dimming                   | Not Available                        |
|   | Cornering   | Not Available                        |
|   | Courtesy (map, reading)                           | Standard                             |
|   | Door lock, ignition                               | Not Available                        |
|   | Engine compartment                                | Standard                             |
|   | Fog   | Not Available                        |
|   | Glove compartment                                 | Standard                             |
|   | Trunk   | Standard                             |
|   | Illuminated entry system (list lamps, activation) | Not Available                        |
| Other   |   |                                      |
| Mirrors                                       | Day / night (auto, man.)                          | Standard - Manual                    |
|   | L.H. (remote, pwr., heated)                       | Standard - Remote; Optional - Power  |
|   | R.H. (convex, rmt, pwr, htd)                      | Standard - Fixed; Optional - Power   |
|   | Visor vanity (RH/LH illum.)                       |                                      |
| Navigation system (describe)                  |   | Not Available                        |
| Prkg. brake-auto release (warn, light)        |   |                                      |



# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*)

## METRIC (U.S. Customary)

|                    |       |       |
|--------------------|-------|-------|
| Engine Description | COUPE | SEDAN |
| Engine Code        |       |       |

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

|   |   |   |   |
|---|---|---|---|
| Power equipment                                 | Deck lid(release, pull down)                |   | Optional, Electric Release  |
|   | Door locks (manual, auto., describe system) |   | Optional, Manual - Electric   |
|   | Seats                                       | 2 - 4 - 6 way, etc.   | Optional 6-Way  |
|   |   | Reclining(R.H., L.H.)   | Standard  |
|   |   | Memory (R.H., L.H., preset, recline)  | Not Available   |
|   |   | Support (lumbar, hip, thigh, etc.)  | Not Available   |
|   |   | Heated (R.H., L.H., other)  | Not Available   |
|   | Side windows                                |   | Optional Electric   |
|   | Vent windows                                |   | Not Applicable  |
|   | Rear windows                                |   | Optional  |
|   |   |   |   |
| Radio systems                                   | Antenna (location, whip, w/shield, power)   |   | Standard, Fixed Whip Located On Right Rear Upper Quarter Panel                      |
|   | Stan.                                       |   | AM/FM Stereo W/Seek/Scan & Digital Clock Electronic Tuning                          |
|   | Opt.  | AM, FM, stereo, tape, compact disc, graphic equalizer, theft deterrent, radio prep package, headphone jacks, etc. | AM/FM Stereo Week/Scan, Auto Reverse Cassette And Digital Clock - Electronic Tuning |
|   | Speaker (number, location)                  |   | Four, Dual Front-Dash Mounted, Dual Extended Range RR                               |
| Roof: open air or fixed (flip-up, sliding, "T") |   | Not Available   |   |
| Speed control device                            |   | Optional, Automatic Electronic  |   |
| Speed warn. dev. (light, buzzer, etc.)          |   | Not Available   |   |
| Tachometer (rpm)                                |   | Optional (Included As Part Of Optional Gauge Package)   |   |
| Telephone system (describe)                     |   | Not Available   |   |
| Theft deterrent system                          |   | Not Available   |   |

### ○ Trailer Towing

|                                 |           |  |
|---------------------------------|-----------|--|
| Towing capable                  | Yes / No  | Yes                                      |
| Engine/transmission/axle        | Std / Opt | With Opt. Only, 3.1L, 4-Spd. Auto., 3.33 |
| Tow class (I, II, III)*         | Std / Opt | 1  |
| Max. gross trailer wgt. (lbs.)  | Std / Opt | 1000                                     |
| Max. trailer tongue load (lbs.) | Std / Opt | 120                                      |
| Towing package available        | Yes / No  | No                                       |

\* Class I - 2,000 lbs. Class II - 3,500 lbs. Class III - 5,000 lbs.

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

### Vehicle Dimensions See Key Sheets for definitions

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

|           |       |       |
|-----------|-------|-------|
| Body Type | COUPE | SEDAN |
|-----------|-------|-------|

| Width                            | SAE Ref. No. |                |              |
|----------------------------------|--------------|----------------|--------------|
| Tread (front)                    | W101         | 1512 (59.5)    |              |
| Tread (rear)                     | W102         | 1472 (58.0)    |              |
| Vehicle width                    | W103         | 1822 (71.7)    | 1803 (71.0)  |
| Body width at Sg RP (front)      | W117         | 1805 (71.0)    | 1803 (71.0)  |
| Vehicle width (front doors open) | W120         | Not Applicable | 3398 (133.8) |
| Vehicle width (rear doors open)  | W121         | Not Applicable | 3640 (143.3) |
| Tumble-home (deg.)               | W122         | 27.0           | 25.0         |
| Outside mirror width             | W410         | 1821 (71.7)    |              |

| Length                        | SAE Ref. No. |              |              |
|-------------------------------|--------------|--------------|--------------|
| Wheelbase                     | L101         | 2730 (107.5) |              |
| Vehicle length                | L103         | 5038 (198.3) |              |
| Overhang (front)              | L104         | 1179 (46.4)  |              |
| Overhang (rear)               | L105         | 1129 (44.4)  |              |
| Upper structure length        | L123         | 2741 (107.9) | 2747 (108.1) |
| Rear wheel C/L 'X' coordinate | L127         | 4525 (178.1) |              |

| Height **                           | SAE Ref. No. |             |             |
|-------------------------------------|--------------|-------------|-------------|
| Passenger distribution (front/rear) | PD1,2,3      | 2 - 0       | **          |
| Trunk/cargo load                    |              |             | **          |
| Vehicle height                      | H101         | 1353 (53.3) | 1361 (53.6) |
| Cowl point to ground                | H114         | 934 (36.8)  | 933 (36.7)  |
| Deck point to ground                | H138         | 988 (38.9)  | 1001 (39.4) |
| Rocker panel-front to ground        | H112         | 234 (9.2)   | 231 (9.1)   |
| Rocker panel-rear to ground         | H111         | 231 (9.1)   | 232 (9.1)   |
| Windshield slope angle (deg.)       | H122         | 62.0        | 59.0        |
| Backlight slope angle (deg.)        | H121         | 66.0        | 57.0        |

| Ground Clearance **                       | SAE Ref. No. |                                |            |
|---|--------------|--------------------------------|------------|
| Front bumper to ground                    | H102         | 340 (13.4)                     |            |
| Rear bumper to ground                     | H104         | 326 (12.8)                     | 337 (13.3) |
| Bumper to ground front at curb mass (wt.) | H103         | 356 (14.0)                     |            |
| Bumper to ground rear at curb mass (wt.)  | H105         | 357 (14.0)                     | 370 (14.6) |
| Angle of approach (deg.)                  | H108         | 16.0                           |            |
| Angle of departure (deg.)                 | H107         | 12.0                           |            |
| Ramp breakover angle (deg.)               | H147         | 10.0                           |            |
| Axle differential to ground (front/rear)  | H153         | 163 (6.4)                      |            |
| Min. running ground clearance             | H156         | 149 (5.9)                      |            |
| Location of min. run. grd. clear.         |              | Exhaust Pipe Rear Of Converter |            |

\*\* All Vehicle Height And Ground Clearance Are Made Using EPA Loaded Vehicle Weight, Loading Conditions.

EPA Loaded Vehicle Weight is the Base Vehicle Weight Plus All Coolant and Fluids Necessary For Operation Plus 100% Of The Fuel Capacity, Plus The Weight Of All Options And Accessories Which Weigh Three Pounds Or More And Which Are Sold On At Least 33% Of The Car Line, Plus Two Occupants.

All Linear Dimensions Are In Millimeters (Inches)

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

### Vehicle Dimensions

See Key Sheets for Definitions

Body Type

COUPE

SEDAN

#### ○ Front Compartment

SAE Ref. No.

|  | SAE Ref. No. |                |                |
|--|--------------|----------------|----------------|
| SgRP front, 'X' coordinate               | L31          | 3137.5 (123.5) | 3139.5 (123.6) |
| Effective head room                      | H81          | 956 (37.6)     | 985 (38.8)     |
| Max. eff. leg room (accelerator)         | L34          | 1076 (42.4)    | 1077 (42.4)    |
| SgRP to heel point                       | H30          | 240 (9.4)      | 251 (9.9)      |
| SgRP to heel point                       | L53          | 876 (34.5)     | 875 (34.4)     |
| Back angle (deg.)                        | L40          | 28.0           |                |
| Hip angle (deg.)                         | L42          | 98.0           | 99.0           |
| Knee angle (deg.)                        | L44          | 128.0          |                |
| Foot angle (deg.)                        | L46          | 87.0           |                |
| Design H-point front travel              | L17          | 199 (7.8)      |                |
| Normal driving & riding seat track trvl. | L23          | 178 (7.00)     | 179 (7.04)     |
| Shoulder room                            | W3           | 1460 (57.5)    | 1478 (58.2)    |
| Hip room                                 | W5           | 1305 (51.4)    | 1328 (52.3)    |
| *** Upper body opening to ground         | H50          | 1238 (48.7)    | 1281 (50.4)    |
| Steering wheel maximum diameter*         | W9           | 374 (14.7)     | 375 (14.8)     |
| Steering wheel angle (deg.)              | H18          | 22.0           |                |
| Accel. heel pt. to steer. whl. cntr      | L11          | 520 (20.5)     | 515 (20.3)     |
| Accel. heel pt. to steer. whl. cntr      | H17          | 623 (24.5)     | 620 (24.4)     |
| Undepressed floor covering thickness     | H67          | 27.0 (1.1)     |                |

Front Compartment Int. Dim. Are Measured With The Seating Ref. Pt.

#### ○ Rear Compartment

(SgRP) mm (1 Seat Adjuster Notch) Forward of Rearmost Seat Position.

|                                    | SAE Ref. No. |             |             |
|------------------------------------|--------------|-------------|-------------|
| SgRP point couple distance         | L50          | 792 (31.2)  | 826 (32.5)  |
| Effective head room                | H83          | 946 (37.2)  | 968 (38.1)  |
| Min. effective leg room            | L51          | 884 (34.8)  | 937 (36.9)  |
| SgRP (second to heel)              | H31          | 249 (9.8)   | 271 (10.7)  |
| Knee clearance                     | L48          | 46 (1.8)    | 17 (0.7)    |
| Shoulder room                      | W4           | 1446 (56.9) | 1427 (56.2) |
| Hip room                           | W6           | 1322 (52.0) | 1329 (52.3) |
| *** Upper body opening to ground   | H51          |             | 1283 (50.5) |
| Back angle (deg.)                  | L41          | 26.0        |             |
| Hip angle (deg.)                   | L43          | 82.0        | 87.0        |
| Knee angle (deg.)                  | L45          | 88.0        | 96.0        |
| Foot angle (deg.)                  | L47          | 122.0       | 125.0       |
| Depressed floor covering thickness | H73          | 16 (0.6)    | 18 (0.7)    |

#### Luggage Compartment

|                                     |      |              |              |
|-------------------------------------|------|--------------|--------------|
| Usable luggage capacity L (cu. ft.) | V1   | 434.2 (15.3) | 445.0 (15.7) |
| *** Litter height                   | H195 | 846 (33.3)   | 845 (33.3)   |

#### Interior Volumes (EPA Classification)

| Vehicle class                     |  | Mid Size |       |
|-----------------------------------|--|----------|-------|
| Interior volume index (cu. ft.)** |  | 111.6    | 117.1 |
| Trunk / cargo index (cu. ft.)     |  | 15.6     | 15.7  |

\* See page 14.

\*\* Includes passenger and trunk / cargo index - see definition page 32.

\*\*\* EPA Loaded Vehicle Weight, Loading Conditions.

All Linear Dimensions Are in Millimeters (Inches)

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) \_\_\_\_\_

## METRIC (U.S. Customary)

### Vehicle Dimensions

See Key Sheets for Definitions

Body Type

COUPE/SEDAN

#### Station Wagon - Third Seat

SAE Ref. No. (NOT APPLICABLE)

|                       | SAE Ref. No. | (NOT APPLICABLE) |
|-----------------------|--------------|------------------|
| Seat facing direction | SD1          |                  |
| 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          |                  |
| Back angle (deg.)     | L88          |                  |
| Hip angle (deg.)      | L89          |                  |
| Knee angle (deg.)     | L90          |                  |
| Foot angle (deg.)     | L91          |                  |

#### Station Wagon - Cargo Space

(NOT APPLICABLE)

|  | SAE Ref. No. | (NOT APPLICABLE) |
|--|--------------|------------------|
| 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         |                  |
| Cargo width (wheelhouse)                 | W201         |                  |
| Rear opening width at floor              | W203         |                  |
| Opening width at belt                    | W204         |                  |
| Min. 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 cu. m. (cu. ft.)      | V2           |                  |
| Hidden cargo vol. index cu. m. (cu. ft.) | V4           |                  |
| Cargo volume index--rear of 2-seat       | V10          |                  |

#### Hatchback - Cargo Space

(NOT APPLICABLE)

|  | SAE Ref. No. | (NOT APPLICABLE) |
|--|--------------|------------------|
| Cargo length at front seatback height    | L208         |                  |
| Cargo length at floor (front)            | L209         |                  |
| Cargo length at second seatback height   | L210         |                  |
| Cargo length at floor (second)           | L211         |                  |
| Front seatback to load floor height      | H197         |                  |
| Second seatback to load floor height     | H198         |                  |
| Cargo volume index cu. m. (cu. ft.)      | V3           |                  |
| Hidden cargo vol. index cu. m. (cu. ft.) | V4           |                  |
| Cargo volume index--rear of 2-seat       | V11          |                  |

\* EPA Loaded Vehicle Weight, Loading Conditions

All Linear Dimensions Are In Millimeters (Inches)

# MVMA Specifications

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

## METRIC (U.S. Customary)

Body Type

COUPE

SEDAN

### Vehicle Fiducial Marks

| Fiducial Mark Number* | Define Coordinate Location  |
|-----------------------|---|
| Front                 | X - Fiducial Mark To Vertical Zero Grid Line - Front Measured Horizontally, From The Zero Grid Line To The Front Fiducial Mark Located On Top Of The Front Seat Adjuster Mounting Bolt. |
|                       | Y - Fiducial Mark To Centerline Of Car - Front, Width Measurement Made From Centerline Car To Fiducial Mark Located On Top Of The Front Seat Adjuster Mounting Bolt.                    |
|                       | Z - Fiducial Mark To Horizontal Zero Grid Line - Front, Measured Vertically From Zero Grid Line To Front Fiducial Mark Located On Top Of The Front Seat Adjuster Mounting Bolt.         |
| Rear                  | X - Fiducial Mark To Vertical Zero Grid Line - Rear, Measured Horizontally From The Zero Grid Line To Rear Fiducial Mark Located On The Rail (Compartment Pan - Longitudinal).          |
|                       | X - Fiducial Mark To Centerline Of Car - Rear, Width Measurement Made From Centerline Of Car To Fiducial Mark Located On The Rail (Compartment Pan - Longitudinal).                     |
|                       | Z - Fiducial Mark To Horizontal Zero Grid Line - Rear, Measured Vertically From The Zero Grid Line To Rear Fiducial Mark Located On The Rail (Compartment Pan - Longitudinal).          |
| Front                 | W21* 555.0 (21.9)   |
|                       | L54* 2776.0 (109.29) 2776.0 (109.29)  |
|                       | H81* 278.0 (10.9) 279.0 (11.0)  |
|                       | H161* 337.0 (13.26) 338.0 (13.3)  |
|                       | ** H163* 316.0 (12.4) 317.0 (12.5)  |
| Rear                  | W22* 678.5 (26.7)   |
|                       | L55* 4063.0 (160.0)   |
|                       | H82* 288.0 (11.3) 289.0 (11.4)  |
|                       | H162* 353.0 (13.9)  |
|                       | ** H164* 327.0 (12.9) 326.0 (12.8)  |

\* Reference - SAE Recommended Practice, J182, Motor Vehicle Fiducial Marks.

\*\* EPA Loaded Vehicle Weight, Loading Conditions.

All Linear Dimensions Are In Millimeters (Inches).

o **MVMA Specifications**

METRIC (U.S. Customary)

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

|                   |                                   | VEHICLE MASS (weight) |                 |                  |                                 |                | % PASS MASS DISTRIBUTION |      |              |      |
|-------------------|-----------------------------------|-----------------------|-----------------|------------------|---------------------------------|----------------|--------------------------|------|--------------|------|
| Code              | Model                             | CURB MASS, kg. (lb.)* |                 |                  | SHIPPING MASS<br>kg (lb)<br>*** | ETWC**<br>Code | PASS IN FRONT            |      | PASS IN REAR |      |
|                   |                                   | Front                 | Rear            | Total            |                                 |                | Front                    | Rear | Front        | Rear |
| LUMINA 1WL27      | 2-Dr. Notchback Coupe (LR8 & MD9) | 908.4<br>(2003)       | 502.6<br>(1108) | 1411<br>(3111)   | 1372<br>(3025)                  | 3375           | 49.4                     | 50.6 | 21.8         | 78.2 |
| 1WL69             | 4-Dr. Notchback Sedan (LR8 & MD9) | 918.8<br>(2025)       | 529.2<br>(1167) | 1448<br>(3192)   | 1409<br>(3106)                  | 3500           | 49.4                     | 50.6 | 21.8         | 78.2 |
| LUMINA EURO 1WN27 | 2-Dr. Notchback Coupe (LHO & MD9) | 960.6<br>(2118)       | 508.5<br>(1121) | 1469.1<br>(3239) | 1431.1<br>(3155)                | 3500           | 49.4                     | 50.6 | 21.8         | 78.2 |
| 1WN69             | 4-Dr. Notchback Sedan (LHO & MD9) | 971.0<br>(2141)       | 535.1<br>(1180) | 1506.1<br>(3321) | 1468.1<br>(3237)                | 3625           | 49.4                     | 50.6 | 21.8         | 78.2 |
| LUMINA Z34        | 2-Dr. Notchback Coupe (LQ1 & M27) | 1005.9<br>(2218)      | 524.4<br>(1156) | 1530.3<br>(3374) | 1492.3<br>(3290)                | 3625           | 49.4                     | 50.6 | 21.8         | 78.2 |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |
|                   |                                   |                       |                 |                  |                                 |                |                          |      |              |      |

\* Reference - SAE J1100 Motor vehicle dimensions, curb weight definition.  
 \*\* ETWC - Equivalent Test Weight Class - basis for U.S. Environmental Protection Agency emission certifications.  
 Refer to ETWC code legend below for test weight class.

ETWC LEGEND

|           |          |          |      |           |
|-----------|----------|----------|------|-----------|
| A = 1000  | I = 2000 | Q = 3000 | 4000 | Y = 4000  |
| BB = 1125 | J = 2125 | R = 3125 | 4250 | Z = 4250  |
| CC = 1250 | K = 2250 | S = 3250 | 4500 | AA = 4500 |
| DD = 1375 | L = 2375 | T = 3375 | 4750 | BB = 4750 |
| EE = 1500 | M = 2500 | U = 3500 | 5000 | CC = 5000 |
| FF = 1625 | N = 2625 | V = 3625 | 5250 | DD = 5250 |
| GG = 1750 | O = 2750 | W = 3750 | 5500 | EE = 5500 |
| HH = 1875 | P = 2875 | X = 3875 | 5750 | FF = 5750 |

\*\*\* Shipping Mass (weight) = Curb Weight Less:

38 (84) - LHO

39 (86) - LR8

38 (84) - LQ1

# MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

|      |   | Optional Equipment Differential Mass (weight)* |              |               |                                       |
|------|---|--|--------------|---------------|---------------------------------------|
| Code | Equipment   | MASS, kg. (lb.)                                |              |               | Remarks<br>Restrictions, Requirements |
|      |   | Front  | Rear         | Total         |                                       |
| AC3  | Seat Adjuster 6-Way                                     | 2.4<br>(5.3)                                   | 1.8<br>(4.0) | 4.2<br>(9.3)  | 1WA00 & AR9                           |
| AG1  | Seat Adjuster 6-Way Power, Driver Only                  | 2.2<br>(4.8)                                   | 2.0<br>(4.4) | 4.2<br>(9.3)  | 1WA00 & AM6                           |
| AM6  | Seat Front Split 3-Passenger                            | 2.8<br>(5.7)                                   | 2.6<br>(5.7) | 5.2<br>(11.5) |                                       |
| AN3  | Seat Front Bucket, Driver,<br>Passenger Electric        | 1.7<br>(3.7)                                   | 1.7<br>(3.7) | 3.4<br>(7.5)  |                                       |
| AP9  | Cargo Restraint   | 0<br>(0)                                       | .2<br>(.4)   | .2<br>(.4)    |                                       |
| AR9  | Seat Front Bucket, Euro Style, P & D RE                 | 1.7<br>(3.7)                                   | 1.7<br>(3.7) | 3.4<br>(7.5)  |                                       |
| AU3  | Lock-Side Door, Electric                                | .6<br>(1.3)                                    | .4<br>(.9)   | 1.0<br>(2.2)  | 1WM27                                 |
| AU3  | Lock-Side Door, Electric                                | 1.2<br>(2.6)                                   | .8<br>(1.8)  | 2.0<br>(4.4)  | 1WM69                                 |
| A31  | Window-Power Operated, Side                             | 2.4<br>(5.3)                                   | 2.4<br>(5.3) | 4.8<br>(10.6) | 1WM69                                 |
| A31  | Window-Power Operated, Side                             | 1.6<br>(3.5)                                   | .6<br>(1.3)  | 2.2<br>(4.8)  | 1WM27                                 |
| A90  | Lock - Rear Compartment Lid,<br>Remote Control Electric | 0<br>(0)                                       | .6<br>(1.3)  | .6<br>(1.3)   |                                       |
| B24  | Orna. - Exterior Molding, Side<br>WDO Rev., PTD         | .2<br>(.4)                                     | 0<br>(0)     | .2<br>(.4)    |                                       |

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

# MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

|      |   | Optional Equipment Differential Mass (weight)* |                |                 |                                       |
|------|---|--|----------------|-----------------|---------------------------------------|
| Code | Equipment                                   | MASS, kg. (lb.)                                |                |                 | Remarks<br>Restrictions, Requirements |
|      |   | Front  | Rear           | Total           |                                       |
| B32  | Color Key Floor Mat                         | 1.2<br>(2.6)                                   | .8<br>(1.8)    | 2.0<br>(4.4)    |                                       |
| B33  | Floor Mats - Rear                           | .6<br>(1.3)                                    | .6<br>(1.3)    | 1.2<br>(2.6)    |                                       |
| B34  | Front Floor Mats                            | 1.4<br>(3.1)                                   | .8<br>(1.8)    | 2.2<br>(4.8)    |                                       |
| B35  | Rear Floor Mats                             | .4<br>(.9)                                     | .8<br>(1.8)    | 1.2<br>(2.6)    |                                       |
| B97  | Rear Wheel Opening Spoiler                  | .9<br>(2.0)                                    | .9<br>(2.0)    | 1.8<br>(4.0)    |                                       |
| C49  | Defogger - Rear Window, Electric            | 0<br>(0)                                       | .2<br>(.4)     | .2<br>(.4)      |                                       |
| C67  | Air Conditioning - Premium                  | 13.0<br>(28.7)                                 | 1.8<br>(4.0)   | 14.8<br>(32.6)  |                                       |
| D55  | Console - Front Compartment Floor,<br>VAR 1 | 5.0<br>(11.0)                                  | 3.8<br>(8.4)   | 8.8<br>(19.4)   |                                       |
| D68  | Mirrors - Remote Right & Left               | 1.0<br>(2.2)                                   | .6<br>(1.3)    | 1.6<br>(3.5)    |                                       |
| D80  | Extension Rear Spoiler                      | -1.4<br>(-3.1)                                 | 8.4<br>(18.5)  | 7.0<br>(15.4)   | 1WA00 & Z34                           |
| D80  | Extension Rear Spoiler                      | -.8<br>(-1.8)                                  | 5.4<br>(11.9)  | 4.6<br>(10.1)   | 1WA00 & ZV8                           |
| FE3  | Suspension System - Sport                   | -5.8<br>(-12.8)                                | -1.8<br>(-4.0) | -7.6<br>(-16.8) |                                       |

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



# MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

|      |  | Optional Equipment Differential Mass (weight)* |                |                  |                                       |
|------|--|--|----------------|------------------|---------------------------------------|
| Code | Equipment  | MASS, kg. (lb.)                                |                |                  | Remarks<br>Restrictions, Requirements |
|      |  | Front  | Rear           | Total            |                                       |
| F41  | Suspension System - Front/Rear,<br>Firm Ride, Handling | -1.9<br>(-4.2)                                 | -4<br>(-9)     | -2.3<br>(-5.1)   |                                       |
| KD1  | Cooling System - Trans Oil                             | 1.0<br>(2.2)                                   | -.2<br>(-.4)   | .8<br>(1.8)      |                                       |
| K05  | Heater - Engine Block                                  | .4<br>(.9)                                     | 0<br>(0)       | .4<br>(.9)       |                                       |
| K34  | Cruise Control - Electronic                            | 1.2<br>(2.6)                                   | 0<br>(0)       | 1.2<br>(2.6)     |                                       |
| LH0  | Engine 3.1 Litre 6-Cyl.                                | 33.0<br>(72.7)                                 | -2.8<br>(-6.2) | 30.2<br>(66.6)   |                                       |
| LQ1  | Engine - Gas, 6-Cyl. 3.4L, MFI                         | 83.4<br>(183.9)                                | 0<br>(0)       | 83.4<br>(183.9)  | 1WA00 & M13                           |
| LQ1  | Engine - Gas, 6-Cyl. 3.4L, MFI                         | 105.6<br>(232.8)                               | 0<br>(0)       | 105.6<br>(232.8) | 1WA00 & M27                           |
| ME9  | Trans - Four Speed Automatic<br>(THM 440T4)            | 11.6<br>(25.6)                                 | 0<br>(0)       | 11.6<br>(25.6)   |                                       |
| M13  | Trans - Four Speed Automatic, HMD                      | 15.2<br>(33.5)                                 | 1.6<br>(3.5)   | 16.8<br>(37.0)   |                                       |
| M27  | Trans - Five Speed Getrag                              | -9.8<br>(-21.6)                                | 0<br>(0)       | -9.8<br>(-21.6)  |                                       |
| NC5  | Exhaust - Dual Vertical Tail Pipes                     | -.2<br>(-.4)                                   | 2.4<br>(5.3)   | 2.2<br>(4.8)     |                                       |
| NC6  | Sporty Exhaust System                                  | -.2<br>(-.4)                                   | 1.6<br>(3.5)   | 1.4<br>(3.1)     |                                       |

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

# MVMA Specifications

METRIC (U.S. Customary)

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

|      |                                 | Optional Equipment Differential Mass (weight)* |              |                |                                       |
|------|---------------------------------|--|--------------|----------------|---------------------------------------|
| Code | Equipment                       | MASS, kg. (lb.):                               |              |                | Remarks<br>Restrictions, Requirements |
|      |                                 | Front  | Rear         | Total          |                                       |
| NW0  | Wheel - 16 x 6.5 Cast Aluminum  | 1.2<br>(2.6)                                   | 1.2<br>(2.6) | 2.4<br>(5.3)   |                                       |
| N14  | Conversion Methanol Fuel        | 10.2<br>(22.5)                                 | 1.4<br>(3.1) | 11.6<br>(25.6) |                                       |
| N33  | Steering Column-Tilt Type       | .6<br>(1.3)                                    | .4<br>(.9)   | 1.0<br>(2.2)   |                                       |
| PG1  | Wheel - 15 x 6 Steel            | 2.6<br>(5.7)                                   | 2.6<br>(5.7) | 5.2<br>(11.5)  |                                       |
| PH3  | Wheel - 15 x 6 Cast Aluminum    | .7<br>(1.5)                                    | .7<br>(1.5)  | 1.4<br>(3.1)   |                                       |
| P02  | Trim Discs - Wheel, VAR 2       | -.2<br>(-.4)                                   | -.2<br>(-.4) | -.4<br>(-.9)   |                                       |
| P08  | Cover - Super Deluxe Wheel      | -.2<br>(-.4)                                   | -.2<br>(-.4) | -.4<br>(-.9)   |                                       |
| Q1N  | Tire - P205/70R15               | 2.0<br>(4.4)                                   | 2.0<br>(4.4) | 4.0<br>(8.8)   |                                       |
| QNX  | Tire - P225/60R16/NBL           | 3.6<br>(7.9)                                   | 3.6<br>(7.9) | 7.2<br>(15.9)  |                                       |
| QXJ  | Tire - All-P225/60R16/N BL R/PE | 3.6<br>(7.9)                                   | 3.6<br>(7.9) | 7.2<br>(15.9)  |                                       |
| UB3  | Cluster Asm - Instrument Panel  | .4<br>(.9)                                     | .2<br>(.4)   | .6<br>(1.3)    |                                       |
| UL5  | Radio - Delete                  | -2.8<br>(-6.2)                                 | 0<br>(0)     | -2.8<br>(-6.2) |                                       |

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

**MVMA Specifications**  
**METRIC (U.S. Customary)**

Vehicle Line LUMINA  
 Model Year 1991 Issued 6-90 Revised(\*) 9-90

**Optional Equipment Differential Mass (weight)\***

| Code | Equipment                                    | MASS, kg. (lb.) |              |              | Remarks<br>Restrictions, Requirements |
|------|--|-----------------|--------------|--------------|---------------------------------------|
|      |  | Front           | Rear         | Total        |                                       |
| UM6  | Radio - AM/FM Stereo, S & S,<br>Cassette, CL | 1.4<br>(3.1)    | .4<br>(.9)   | 1.8<br>(4.0) |                                       |
| UQ4  | Audio System - Bose Speakers                 | 1.0<br>(2.2)    | 1.8<br>(4.0) | 2.8<br>(6.2) |                                       |
| UU8  | AM/FM Stereo Cassette ETR                    | 1.0<br>(2.2)    | .4<br>(.9)   | 1.4<br>(3.1) |                                       |
| VK3  | License Plate - Front Mounting Package       | .6<br>(1.3)     | -2<br>(-4)   | .4<br>(.9)   |                                       |
| V56  | Carrier - Luggage - Rear (Painted)           | -.8<br>(-1.8)   | 4.4<br>(9.7) | 3.6<br>(7.9) |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |
|      |  |                 |              |              |                                       |

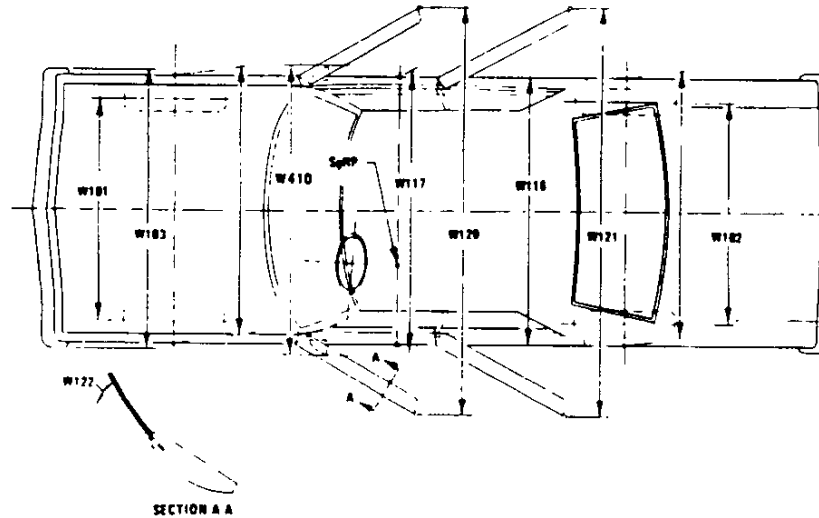
\* Also see Engine - General Section for dressed engine mass (weight).

# MVMA Specifications

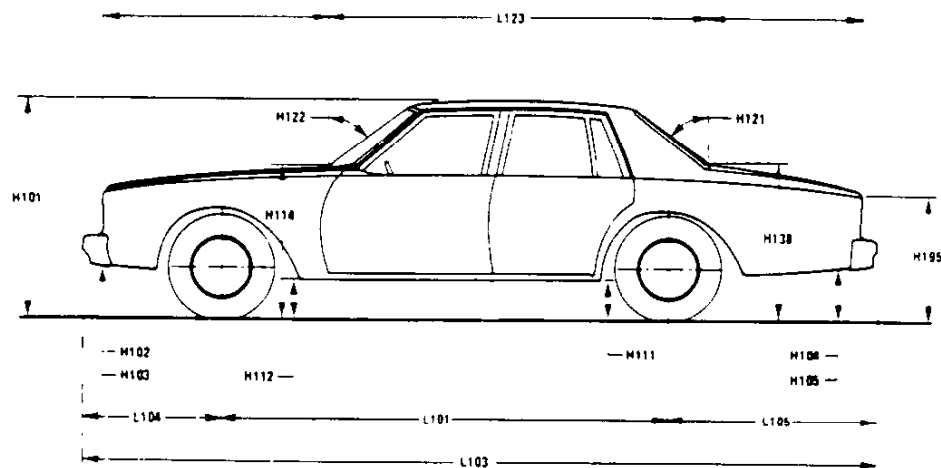
METRIC (U.S. Customary)

## Exterior Vehicle And Body Dimensions - Key Sheet

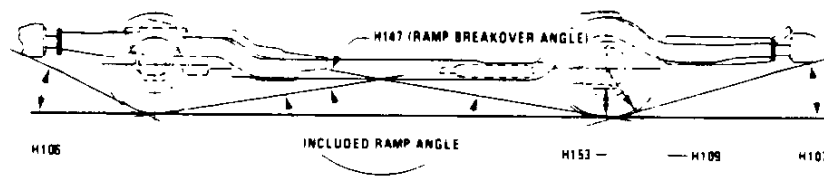
### Exterior Width



### Exterior Length & Height



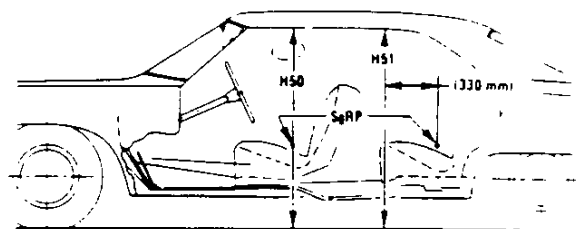
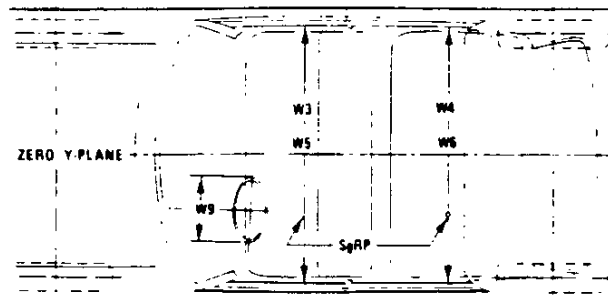
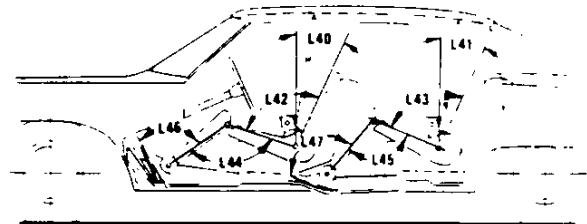
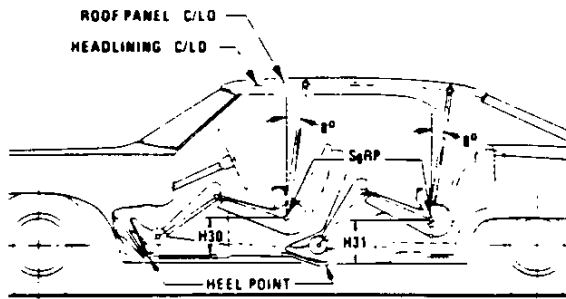
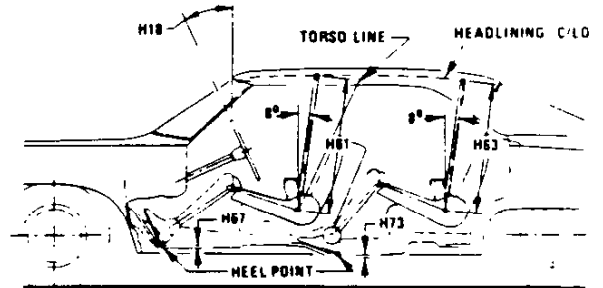
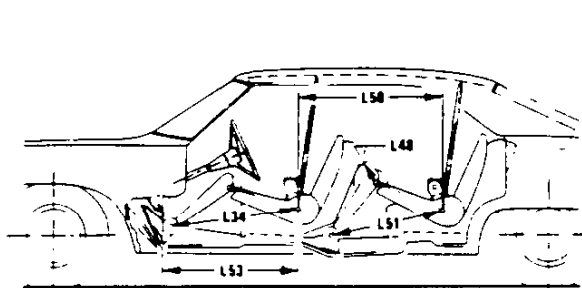
### Exterior Ground Clearance



# MVMA Specifications Form

## METRIC (U.S. Customary)

### Interior Vehicle And Body Dimensions - Key Sheet

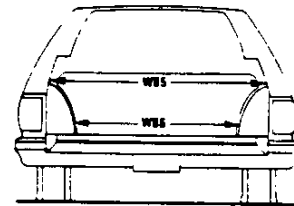
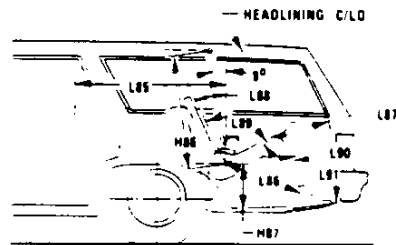


# MVMA Specifications Form

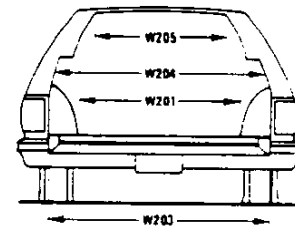
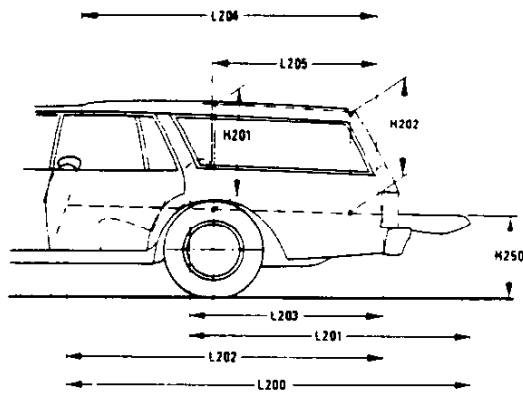
METRIC (U.S. Customary)

## Interior Vehicle And Body Dimensions - Key Sheet

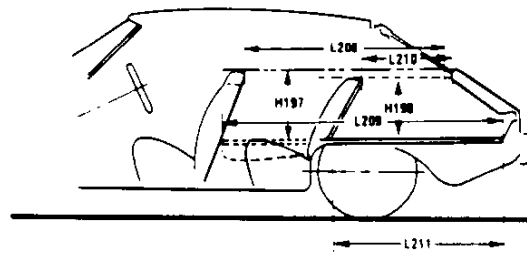
### Third Seat



### Cargo Space



### Station Wagon



### Hatchback

# MVMA Specifications

## METRIC (U.S. Customary)

### Exterior Vehicle 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.
- 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.
- W410 OUTSIDE MIRROR WIDTH. The dimension between the widest point on the outside mirrors. The standard right and left mirror adjusted for normal driving will be shown unless otherwise noted. When only one outside mirror is standard, the dimension will be to the zero "Y" 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 OVERHAND – 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.
- 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.

#### 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.
- 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.
- 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 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.

# MVMA Specifications

## METRIC (U.S. Customary)

### Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

#### 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

- 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 TRAVEL. 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
- L-40 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.
- L-42 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.
- H7 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.
- 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.

#### Rear Compartment Dimensions

- 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 254 mm (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
- 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 dimension measured vertically from the heel point to the underbody sheet metal.



# MVMA Specifications

## METRIC (U.S. Customary)

### Interior Vehicle And Body Dimensions - Key Sheet Dimensions Definitions

#### 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.

#### 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 51 mm (2.0 in.). With rear-facing third seat, dimension is measured to closure.
- L88 BACK ANGLE - THIRD. Measured in the same manner 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.
- 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 front 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 the 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, measure to the sheet metal.

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:

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

Measured in mm:

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

# MVMA Specifications

## METRIC (U.S. Customary)

### Interior Vehicle And Body Dimensions – Key Sheet Dimensions Definitions

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:

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

Measured in mm:

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

V6 TRUCKS AND MPV'S WITH CLOSED AREA.

Measured in inches:

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

Measured in mm:

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

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:

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

Measured in mm:

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

#### 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 electronically 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 "X" 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 seatback to the undepressed floor covering.

V3 HATCHBACK.

Measured in inches:

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

Measured in mm:

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

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:

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

Measured in mm:

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

# MVMA Specifications

METRIC (U.S. Customary)

## Index

| Subject                                       | Page No.           | Subject                              | Page No. |
|---|--------------------|--------------------------------------|----------|
| Alternator                                    | 16                 | Passenger Capacity                   | 1        |
| Axle Drive, Front, Rear, All Four             | 2, 9, 10           | Passenger Mass Distribution          | 25       |
| Axle Shafts                                   | 10                 | Pistons                              | 3        |
| Battery                                       | 16                 | Power Brakes                         | 12       |
| Body and Miscellaneous Information            | 17                 | Power, Engine                        | 2        |
| Brakes - Parking Service                      | 12, 13             | Power Steering                       | 14       |
| Camber  | 15                 | Power Teams                          | 2        |
| Camshaft                                      | 3                  | Propeller Shaft                      | 10       |
| Capacitors                                    | 5                  | Pumps - Fuel                         | 6        |
| Cooling System                                | 5                  | Water                                | 5        |
| Fuel Tank                                     | 6                  | Radiator - Cap, Hoses, Core          | 5        |
| Lubricants                                    | 4                  | Roses - Axle, Transaxle              | 2, 9, 10 |
| Engine Crankcase                              | 4                  | Compression                          | 2        |
| Transmission / Transaxle                      | 8, 9               | Steering                             | 14       |
| Rear Axle                                     | 10                 | Transmission / Transaxle             | 2, 8, 9  |
| Carburetor                                    | 2, 6               | Rear Axle                            | 2, 10    |
| Caster  | 15                 | Regulator - Alternator               | 16       |
| Clutch - Pedal Operated                       | 8                  | Restraint System                     | 18       |
| Coil, Ignition                                | 16                 | Rims                                 | 13       |
| Connecting Rods                               | 4                  | Rods - Connecting                    | 4        |
| Convenience Equipment                         | 19-20              | Scrub Radius                         | 14       |
| Cooling System                                | 5                  | Seats                                | 17       |
| Crankshaft                                    | 4                  | Shock Absorbers, Front & Rear        | 11       |
| Cylinders and Cylinder Head                   | 3                  | Spark Plugs                          | 16       |
| Diesel Information                            | 4                  | Speedometer                          | 15       |
| Dimension Definitions                         | 27, 30, 31         | Springs - Front & Rear Suspension    | 11       |
| Key Sheet - Exterior                          | 28, 29, 31, 32, 33 | Stabilizer (Sway Bar) - Front & Rear | 11       |
| Key Sheet - Interior                          | 28, 29, 31, 32, 33 | Starting System                      | 16       |
| Electrical System                             | 15, 16             | Steering                             | 14       |
| Emission Controls                             | 7                  | Suppression - Ignition, Radio        | 16       |
| Engine - General                              | 3                  | Suspension - Front & Rear            | 11       |
| Bore, Stroke, Type                            | 2                  | Tail Pipe                            | 7        |
| Compression Ratio                             | 2, 3               | Theft Protection                     | 20       |
| Displacement                                  | 2, 3               | Thermostat, Cooling                  | 5        |
| Firing Order, Cylinder Numbering              | 3                  | Tires                                | 13       |
| General Information, Power & Torque           | 2                  | Toe-In                               | 15       |
| Intake System                                 | 4                  | Torque Converter                     | 9        |
| Power Teams                                   | 2                  | Torque - Engine                      | 2, 8, 9  |
| Exhaust System                                | 7                  | Trailer Towing                       | 20       |
| Equipment Availability, Convenience           | 19                 | Transaxle                            | 9        |
| Fan, Cooling                                  | 5                  | Transmission - Types                 | 2, 8, 9  |
| Filters - Engine Oil, Fuel System             | 4                  | Transmission - Automatic             | 2, 9     |
| Four Wheel Drive                              | 10                 | Transmission - Manual                | 2, 6     |
| Frame   | 18                 | Transmission - Ratios                | 2, 8, 9  |
| Front Suspension                              | 11                 | Tread                                | 21       |
| Front Wheel Drive Unit                        | 10                 | Trunk Cargo Load                     | 22       |
| Fuel Economy EPA                              | 1                  | Trunk Luggage Capacity               | 22       |
| Fuel Injection                                | 6                  | Turning Diameter                     | 14       |
| Fuel System                                   | 6                  | Unibzed Construction                 | 15       |
| Fuel Tank                                     | 6                  | Universal Joints, Propeller Shaft    | 10       |
| Glass   | 18                 | Valve System                         | 4        |
| Headlamps                                     | 18                 | Vehicle Dimensions                   | 21       |
| Headroom - Body                               | 22, 23             | Width                                | 21       |
| Heights                                       | 21                 | Length                               | 21       |
| Horns   | 15                 | Height                               | 21       |
| Horsepower - Brake                            | 2                  | Ground Clearance                     | 21       |
| Ignition System                               | 16                 | Front Compartment                    | 22       |
| Inflation - Tires                             | 13                 | Rear Compartment                     | 22       |
| Interior Volumes                              | 22                 | Luggage Compartment                  | 22       |
| Instruments                                   | 15                 | Station Wagon - Third Seat           | 22       |
| Legroom                                       | 22, 23             | Station Wagon - Cargo Space          | 22       |
| Lengths                                       | 21                 | Hatchback - Cargo Space              | 22       |
| Leveling, Suspension                          | 11                 | Fiducial Marks                       | 21       |
| Lifters, Valve                                | 4                  | Voltage Regulator                    | 16       |
| Linings - Clutch, Brake                       | 8, 12              | Water Pump                           | 5        |
| Lubrication - Engine, Transmission, Transaxle | 4, 8, 9            | Weights                              | 21, 26   |
| Luggage Compartment                           | 22                 | Wheel Alignment                      | 21       |
| Models  | 1                  | Wheelbase                            | 21       |
| Motor Starting                                | 16                 | Wheels & Tires                       | 21       |
| Muffler                                       | 7                  | Wheel Spindle                        | 21       |
| Origin  | 1                  | Widths                               | 21       |
|   |                    | Windshield                           | 12       |
|   |                    | Windshield Wiper and Washer          | 15       |