

* * * A T T E N T I O N * * *

Individual Vehicle dimensions were obtained through the use of the Expert AutoStats(R) program.

The Expert AutoStats(R) program contains a multitude of vehicle dimensions and specifications on over 42,000 different vehicles and 203 different manufacturers spanning more than 50 years.

While every attempt has been made to ensure accurate data, these dimensions are meant to be used as first approximations. Some measurements are dependant on such factors as tire and rim sizes, tire inflation pressure and wear, suspension system condition, bumper type and style, and other manufacturing variations from vehicle to vehicle.

Whenever feasible, the vehicle in question or an exemplar vehicle should be measured to verify data important to your case.

Individual Vehicle Data Search Service (R)

Provided by:

4N6XPRT SYSTEMS (R)

Forensic Expert Software

La Mesa, CA 91942-9342

(619) 464-3478 / (800) 266-9778 / FAX: (619) 464-2206

Through the use of

E X P E R T A U T O S T A T S (R)

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Expert VIN DeCoder®

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Version Number 3.1.0.3

DeCoded VIN: **2G1WF52E839204109**

Model: **2003 Chevrolet Impala 4 Door Sedan**

Engine Size: **3.4L / 207cu.in.**

Engine Description: **V6 Cylinder Overhead Valves**

Horse Power: **210 @ 5200 rpm**

Torque: **215 lb-ft at 4000 rpm**

Injection System: **Multi-Port Fuel Injection (MFI)**

PSI: **41-47 psi** Ignition: **Electronic**

Manufacturer: **Buick - Oldsmobile - Cadillac**

Assembly Plant: **Oshawa #1, ON**

Drive wheels: **This is a Front wheel Drive vehicle w/ Manual Seatbelts + Driver & Passenger Air Bags**

The First through Third characters (2G1) indicate a Chevrolet Car made in Canada

The Fourth and Fifth characters (WF) indicate an Impala

The Sixth character (5) indicates a 4 Door Sedan

The Seventh character (2) indicates Manual Seatbelts + Driver & Passenger Air Bags

The Eighth character (E) indicates the OEM engine: 3.4L / 207cu.in., V6 OHV

The Ninth character (the check digit) is entered as 8.

The VIN appears valid, the calculated value is 8.

The Tenth character (3) indicates the model year 2003

The Eleventh character (9) indicates the vehicle was made in the assembly plant in Oshawa #1, ON

The Twelfth through Seventeenth characters (204109) indicate the Serial Number and are unique to this vehicle.

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 8387 University Avenue
 La Mesa CA 91941

9/28/2012

2003 CHEVROLET IMPALA 4 DOOR SEDAN

Curb Weight: lbs. kg.
 Curb Weight Distribution - Front: % Rear: %
 Gross Vehicle Weight Rating: lbs. kg.
 Number of Tires on Vehicle:
 Drive wheels:

Horizontal Dimensions

	Inches	Feet	Meters
Total Length	<input type="text" value="200"/>	<input type="text" value="16.67"/>	<input type="text" value="5.08"/>
wheelbase:	<input type="text" value="111"/>	<input type="text" value="9.25"/>	<input type="text" value="2.82"/>
Front Bumper to Front Axle:	<input type="text" value="41"/>	<input type="text" value="3.42"/>	<input type="text" value="1.04"/>
Front Bumper to Front of Front Well:	<input type="text" value="26"/>	<input type="text" value="2.17"/>	<input type="text" value="0.66"/>
Front Bumper to Front of Hood:	<input type="text" value="5"/>	<input type="text" value="0.42"/>	<input type="text" value="0.13"/>
Front Bumper to Base of windshield:	<input type="text" value="49"/>	<input type="text" value="4.08"/>	<input type="text" value="1.24"/>
Front Bumper to Top of windshield:	<input type="text" value="83"/>	<input type="text" value="6.92"/>	<input type="text" value="2.11"/>
Rear Bumper to Rear Axle:	<input type="text" value="48"/>	<input type="text" value="4.00"/>	<input type="text" value="1.22"/>
Rear Bumper to Rear of Rear Well:	<input type="text" value="31"/>	<input type="text" value="2.58"/>	<input type="text" value="0.79"/>
Rear Bumper to Rear of Trunk:	<input type="text" value="7"/>	<input type="text" value="0.58"/>	<input type="text" value="0.18"/>
Rear Bumper to Base of Rear Window:	<input type="text" value="29"/>	<input type="text" value="2.42"/>	<input type="text" value="0.74"/>

Width Dimensions

Maximum width:	<input type="text" value="73"/>	<input type="text" value="6.08"/>	<input type="text" value="1.85"/>
Front Track:	<input type="text" value="62"/>	<input type="text" value="5.17"/>	<input type="text" value="1.57"/>
Rear Track:	<input type="text" value="61"/>	<input type="text" value="5.08"/>	<input type="text" value="1.55"/>

Vertical Dimensions

Height:	<input type="text" value="58"/>	<input type="text" value="4.83"/>	<input type="text" value="1.47"/>
Ground to -			
Front Bumper (Top)	<input type="text" value="23"/>	<input type="text" value="1.92"/>	<input type="text" value="0.58"/>
Headlight - center	<input type="text" value="27"/>	<input type="text" value="2.25"/>	<input type="text" value="0.69"/>
Hood - top front:	<input type="text" value="29"/>	<input type="text" value="2.42"/>	<input type="text" value="0.74"/>
Base of Windshield	<input type="text" value="39"/>	<input type="text" value="3.25"/>	<input type="text" value="0.99"/>
Rear Bumper - top:	<input type="text" value="31"/>	<input type="text" value="2.58"/>	<input type="text" value="0.79"/>
Trunk - top rear:	<input type="text" value="44"/>	<input type="text" value="3.67"/>	<input type="text" value="1.12"/>
Base of Rear Window:	<input type="text" value="45"/>	<input type="text" value="3.75"/>	<input type="text" value="1.14"/>

2003 CHEVROLET IMPALA 4 DOOR SEDAN

Interior Dimensions

	Inches	Feet	Meters
Front Seat Shoulder width	58	4.83	1.47
Front Seat to Headliner	38	3.17	0.97
Front Leg Room - seatback to floor (max)	42	3.50	1.07
Rear Seat Shoulder width	58	4.83	1.47
Rear Seat to Headliner	37	3.08	0.94
Front Leg Room - seatback to floor (min)	36	3.00	0.91
Seatbelts:	3pt - front and rear		
Airbags:	FRONT SEAT AIRBAGS		

Steering Data

Turning Circle (Diameter)	456	38.00	11.58
Steering Ratio:	:1		
Wheel Radius:	12	1.00	0.30
Tire Size (OEM):	P225/60R16		

Acceleration & Braking Information

Brake Type:	ALL DISC
ABS System:	ABS

Braking, 60 mph to 0 (Hard pedal, no skid, dry pavement):

$$d = 174.0 \text{ ft} \quad t = 4.0 \text{ sec} \quad a = -22.2 \text{ ft/sec}^2 \quad G\text{-force} = -0.69$$

Acceleration:

0 to 30mph	t = 3.0 sec	a = 14.7 ft/sec ²	G-force = 0.46
0 to 60mph	t = 9.2 sec	a = 9.6 ft/sec ²	G-force = 0.30
45 to 65mph	t = sec	a = ft/sec ²	G-force =

Transmission Type: 4spd AUTOMATIC

Notes:

Federal Bumper Standard Requirements:	2.5 mph
This vehicles Rated Bumper Strength:	2.5 mph

N.S.D.C = 2000 - 2005

2003 CHEVROLET IMPALA 4 DOOR SEDAN

Other Information

Tip-Over Stability Ratio =	1.35	Stable
NHTSA Star Rating (calculated)		****

Center of Gravity (No Load):

Inches behind front axle	=	42.18
Inches in front of rear axle	=	68.82
Inches from side of vehicle	=	36.50
Inches from ground	=	22.77
Inches from front corner	=	90.84
Inches from rear corner	=	122.39
Inches from front bumper	=	83.18
Inches from rear bumper	=	116.82

Moments of Inertia Approximations (No Load):

Yaw Moment of Inertia	=	2284.67	lb*ft*sec ²
Pitch Moment of Inertia	=	2206.11	lb*ft*sec ²
Roll Moment of Inertia	=	460.02	lb*ft*sec ²

Front Profile Information

Angle Front Bumper to Hood Front	=	50.2	deg
Angle Front of Hood to windshield Base	=	12.8	deg
Angle Front of Hood to windshield Top	=	19.1	deg
Angle of windshield	=	26.6	deg
Angle of Steering Tires at Max Turn	=	27.9	deg

First Approximation Crush Factors:

Speed Equivalent (mph) of Kinetic Energy (KE) used in causing crush of indentation may be evaluated using the following formula, the appropriated Crush Factor (CF), and Maximum Indentation Depth (MID), in feet:

$$V(\text{mph}) = \sqrt{(30 * CF * MID)}$$

KE Equivalent Speed (Front/Rear/Side)	=	21	CF
Bullet vehicle IMPACT SPEED estimation based on TARGET VEHICLE damage ONLY (Tested for Rear/Side Impact only)	=	27	CF

These CF values are based upon analysis of NHTSA Barrier Crash data, and from over 1000 vehicle accidents where independant evaluation of speed was possible. (These are NOT 'A', 'B', 'C', or 'G' values)

The rear Impact data with more then 2-3 inches of crush damage should be looked at carefully, since some vehicles have very weak trunk & fender strength. Therefore, on some cars, especially GM, you estimate from the rear crush data may be high by as much as 4-5 mph (on a crush of 18 inches).

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Version Number 3.1.0.3

DeCoded VIN: **1G2WP52K9YF330699**

Model: **2000 Pontiac Grand Prix GT 4 Door Sedan**

Engine Size: **3.8L / 231cu.in.**

Engine Description: **V6 Cylinder with Overhead Valves (OHV)**

Horse Power: **205 @ 5200 rpm**

Torque: **230 lb-ft at 4000 rpm**

Injection System: **Multi-Port Fuel Injection (MFI)**

PSI: **41-47 psi** Ignition: **Electronic**

Manufacturer: **Buick, Oldsmobile, Cadillac**

Assembly Plant: **Fairfax II, KS**

Drive wheels: **This is a Front wheel Drive vehicle w/ Manual Seatbelts + Driver & Passenger Air Bags**

The First through Third characters (1G2) indicate a Pontiac Car made in the U.S.A.

The Fourth and Fifth characters (WP) indicate a Grand Prix GT

The Sixth character (5) indicates a 4 Door Sedan

The Seventh character (2) indicates Manual Seatbelts + Driver & Passenger Air Bags

The Eighth character (K) indicates the OEM engine: 3.8L / 231cu.in., V6 OHV

The Ninth character (the check digit) is entered as 9.

The VIN appears valid, the calculated value is 9.

The Tenth character (Y) indicates the model year 2000

The Eleventh character (F) indicates the vehicle was made in the assembly plant in Fairfax II, KS

The Twelfth through Seventeenth characters (330699) indicate the Serial Number and are unique to this vehicle.

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9/28/2012

2000 PONTIAC GRAND PRIX 4 DOOR SEDAN

Curb Weight: lbs. kg.
 Curb Weight Distribution - Front: % Rear: %
 Gross Vehicle Weight Rating: lbs. kg.
 Number of Tires on Vehicle:
 Drive wheels:

Horizontal Dimensions

	Inches	Feet	Meters
Total Length	<input type="text" value="197"/>	<input type="text" value="16.42"/>	<input type="text" value="5.00"/>
wheelbase:	<input type="text" value="111"/>	<input type="text" value="9.25"/>	<input type="text" value="2.82"/>
Front Bumper to Front Axle:	<input type="text" value="42"/>	<input type="text" value="3.50"/>	<input type="text" value="1.07"/>
Front Bumper to Front of Front Well:	<input type="text" value="26"/>	<input type="text" value="2.17"/>	<input type="text" value="0.66"/>
Front Bumper to Front of Hood:	<input type="text" value="6"/>	<input type="text" value="0.50"/>	<input type="text" value="0.15"/>
Front Bumper to Base of windshield:	<input type="text" value="52"/>	<input type="text" value="4.33"/>	<input type="text" value="1.32"/>
Front Bumper to Top of windshield:	<input type="text" value="85"/>	<input type="text" value="7.08"/>	<input type="text" value="2.16"/>
Rear Bumper to Rear Axle:	<input type="text" value="44"/>	<input type="text" value="3.67"/>	<input type="text" value="1.12"/>
Rear Bumper to Rear of Rear Well:	<input type="text" value="31"/>	<input type="text" value="2.58"/>	<input type="text" value="0.79"/>
Rear Bumper to Rear of Trunk:	<input type="text" value="6"/>	<input type="text" value="0.50"/>	<input type="text" value="0.15"/>
Rear Bumper to Base of Rear Window:	<input type="text" value="28"/>	<input type="text" value="2.33"/>	<input type="text" value="0.71"/>

Width Dimensions

	Inches	Feet	Meters
Maximum width:	<input type="text" value="73"/>	<input type="text" value="6.08"/>	<input type="text" value="1.85"/>
Front Track:	<input type="text" value="61"/>	<input type="text" value="5.08"/>	<input type="text" value="1.55"/>
Rear Track:	<input type="text" value="61"/>	<input type="text" value="5.08"/>	<input type="text" value="1.55"/>

Vertical Dimensions

	Inches	Feet	Meters
Height:	<input type="text" value="55"/>	<input type="text" value="4.58"/>	<input type="text" value="1.40"/>
Ground to -			
Front Bumper (Top)	<input type="text" value="21"/>	<input type="text" value="1.75"/>	<input type="text" value="0.53"/>
Headlight - center	<input type="text" value="25"/>	<input type="text" value="2.08"/>	<input type="text" value="0.64"/>
Hood - top front:	<input type="text" value="26"/>	<input type="text" value="2.17"/>	<input type="text" value="0.66"/>
Base of Windshield	<input type="text" value="36"/>	<input type="text" value="3.00"/>	<input type="text" value="0.91"/>
Rear Bumper - top:	<input type="text" value="26"/>	<input type="text" value="2.17"/>	<input type="text" value="0.66"/>
Trunk - top rear:	<input type="text" value="37"/>	<input type="text" value="3.08"/>	<input type="text" value="0.94"/>
Base of Rear Window:	<input type="text" value="41"/>	<input type="text" value="3.42"/>	<input type="text" value="1.04"/>

2000 PONTIAC GRAND PRIX 4 DOOR SEDAN

Interior Dimensions

	Inches	Feet	Meters
Front Seat Shoulder width	59	4.92	1.50
Front Seat to Headliner	38	3.17	0.97
Front Leg Room - seatback to floor (max)	43	3.58	1.09
Rear Seat Shoulder width	57	4.75	1.45
Rear Seat to Headliner	37	3.08	0.94
Front Leg Room - seatback to floor (min)	30	2.50	0.76
Seatbelts:	3pt - front and rear		
Airbags:	FRONT SEAT AIRBAGS		

Steering Data

Turning Circle (Diameter)	480	40.00	12.19
Steering Ratio:	:1		
Wheel Radius:			
Tire Size (OEM):	P205/70R15		

Acceleration & Braking Information

Brake Type:	ALL DISC
ABS System:	ALL WHEEL ABS

Braking, 60 mph to 0 (Hard pedal, no skid, dry pavement):

$$d = 139.0 \text{ ft} \quad t = 3.2 \text{ sec} \quad a = -27.8 \text{ ft/sec}^2 \quad G\text{-force} = -0.86$$

Acceleration:

0 to 30mph	t = 2.4 sec	a = 18.3 ft/sec ²	G-force = 0.57
0 to 60mph	t = 6.9 sec	a = 12.8 ft/sec ²	G-force = 0.40
45 to 65mph	t = 2.7 sec	a = 10.9 ft/sec ²	G-force = 0.34

Transmission Type: 4spd AUTOMATIC

Notes:

Federal Bumper Standard Requirements:	2.5 mph
This vehicles Rated Bumper Strength:	2.5 mph

N.S.D.C = 1997 - 2003

2000 PONTIAC GRAND PRIX 4 DOOR SEDAN

Other Information

Tip-Over Stability Ratio =	1.41	Stable
NHTSA Star Rating (calculated)		****

Center of Gravity (No Load):

Inches behind front axle	=	38.85
Inches in front of rear axle	=	72.15
Inches from side of vehicle	=	36.50
Inches from ground	=	21.59
Inches from front corner	=	88.71
Inches from rear corner	=	121.75
Inches from front bumper	=	80.85
Inches from rear bumper	=	116.15

Moments of Inertia Approximations (No Load):

Yaw Moment of Inertia	=	2310.42	lb*ft*sec ²
Pitch Moment of Inertia	=	2230.86	lb*ft*sec ²
Roll Moment of Inertia	=	464.52	lb*ft*sec ²

Front Profile Information

Angle Front Bumper to Hood Front	=	39.8	deg
Angle Front of Hood to windshield Base	=	12.3	deg
Angle Front of Hood to windshield Top	=	18.9	deg
Angle of windshield	=	27.3	deg
Angle of Steering Tires at Max Turn	=	26.5	deg

First Approximation Crush Factors:

Speed Equivalent (mph) of Kinetic Energy (KE) used in causing crush of indentation may be evaluated using the following formula, the appropriated Crush Factor (CF), and Maximum Indentation Depth (MID), in feet:

$$V(\text{mph}) = \sqrt{(30 * CF * MID)}$$

KE Equivalent Speed (Front/Rear/Side)	=	21	CF
Bullet vehicle IMPACT SPEED estimation based on TARGET VEHICLE damage ONLY (Tested for Rear/Side Impact only)	=	27	CF

These CF values are based upon analysis of NHTSA Barrier Crash data, and from over 1000 vehicle accidents where independant evaluation of speed was possible. (These are NOT 'A', 'B', 'C', or 'G' values)

The rear Impact data with more then 2-3 inches of crush damage should be looked at carefully, since some vehicles have very weak trunk & fender strength. Therefore, on some cars, especially GM, you estimate from the rear crush data may be high by as much as 4-5 mph (on a crush of 18 inches).