

\* \* \*        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 54,000 different vehicles and 203 different manufacturers spanning more than 80 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  
8387 University Avenue  
La Mesa, CA 91942-9342

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

Web Site - [www.4N6XPRT.com](http://www.4N6XPRT.com)

Email - [4n6@4n6xpirt.com](mailto:4n6@4n6xpirt.com)

Through the use of

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

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DEVELOPED BY:  
Daniel W. Vomhof III & Daniel W. Vomhof, Ph.D.

VEHICLE DATA RESEARCH BY:  
Sheryl Cozby, Marion Vomhof, Muriel Vomhof, & Cindy Christensen

# Expert VIN DeCoder®

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Version Number 4.4.0.1

DeCoded VIN: **KNAFK4A61F5436833**

Model:	2015 Kia Forte LX 4 door Sedan		
Engine Size:	1.8 L/ 110 cu.in.		
Engine Description:	Inline 4 cylinder with Dual Overhead Cam		
Horse Power:	145 @ 6500 rpms		
Torque:	130 lb-ft at 4700 rpms		
Injection System:	Electronic Gasoline Injection (EGI)		
PSI:	N/A	Ignition:	electronic
Manufacturer:	Kia		
Assembly Plant:	Hwasung, Korea		
Drive Wheels:	This is a Front wheel Drive vehicle w/ Manual Belts w/ Driver & Passenger Airbags (Front, Side and Curtain)		

The First through Third characters (KNA) indicate a Kia Passenger Car made in Korea

The Fourth character (F) indicates a Forte

The Fifth character (K) indicates a GL series

The Sixth character (4) indicates a 4 door Sedan

The Seventh character (A) indicates Manual Belts w/ Driver & Passenger Airbags (Front, Side and Curtain)

The Eighth character (6) indicates the OEM engine: 1.8 L/ 110 cu.in., L4, DOHC

The Ninth character (the check digit) is entered as 1.

The VIN appears valid, the calculated value is 1.

The Tenth character (F) indicates the model year 2015

The Eleventh character (5) indicates the vehicle was made in the assembly plant in Hwasung, Korea

The Twelfth through Seventeenth characters (436833) indicate the Serial Number and are unique to this vehicle.

# Expert AutoStats®

Version 6.4.1.1

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PROVIDED BY:

4N6XPRT Systems

8387 University Avenue

La Mesa CA 91941

5/18/2025

2015 KIA FORTE 4 DOOR SEDAN

Curb Weight:	<input type="text" value="2786"/>	lbs.	<input type="text" value="1264"/>	kg.
Curb Weight Distribution -	Front: <input type="text" value="56"/>	%	Rear: <input type="text" value="44"/>	%
Gross Vehicle Weight Rating:	<input type="text"/>	lbs.	<input type="text"/>	kg.
Number of Tires on Vehicle:	<input type="text" value="4"/>			
Drive Wheels:	<input type="text" value="FRONT"/>			

Horizontal Dimensions	Inches	Feet	Meters
Total Length	<input type="text" value="179"/>	<input type="text" value="14.92"/>	<input type="text" value="4.55"/>
Wheelbase:	<input type="text" value="106"/>	<input type="text" value="8.83"/>	<input type="text" value="2.69"/>
Front Bumper to Front Axle:	<input type="text" value="34"/>	<input type="text" value="2.83"/>	<input type="text" value="0.86"/>
Front Bumper to Front of Front Well:	<input type="text" value="20"/>	<input type="text" value="1.67"/>	<input type="text" value="0.51"/>
Front Bumper to Front of Hood:	<input type="text" value="3"/>	<input type="text" value="0.25"/>	<input type="text" value="0.08"/>
Front Bumper to Base of windshield:	<input type="text" value="34"/>	<input type="text" value="2.83"/>	<input type="text" value="0.86"/>
Front Bumper to Top of Windshield:	<input type="text" value="73"/>	<input type="text" value="6.08"/>	<input type="text" value="1.85"/>
Rear Bumper to Rear Axle:	<input type="text" value="39"/>	<input type="text" value="3.25"/>	<input type="text" value="0.99"/>
Rear Bumper to Rear of Rear Well:	<input type="text" value="23"/>	<input type="text" value="1.92"/>	<input type="text" value="0.58"/>
Rear Bumper to Rear of Trunk:	<input type="text" value="5"/>	<input type="text" value="0.42"/>	<input type="text" value="0.13"/>
Rear Bumper to Base of Rear Window:	<input type="text" value="18"/>	<input type="text" value="1.50"/>	<input type="text" value="0.46"/>
Width Dimensions			
Maximum Width:	<input type="text" value="70"/>	<input type="text" value="5.83"/>	<input type="text" value="1.78"/>
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="62"/>	<input type="text" value="5.17"/>	<input type="text" value="1.57"/>
Vertical Dimensions			
Height:	<input type="text" value="56"/>	<input type="text" value="4.67"/>	<input type="text" value="1.42"/>
Ground to -			
Front Bumper (Top)	<input type="text" value="20"/>	<input type="text" value="1.67"/>	<input type="text" value="0.51"/>
Headlight - center	<input type="text" value="28"/>	<input type="text" value="2.33"/>	<input type="text" value="0.71"/>
Hood - top front:	<input type="text" value="27"/>	<input type="text" value="2.25"/>	<input type="text" value="0.69"/>
Base of Windshield	<input type="text" value="37"/>	<input type="text" value="3.08"/>	<input type="text" value="0.94"/>
Rear Bumper - top:	<input type="text" value="25"/>	<input type="text" value="2.08"/>	<input type="text" value="0.64"/>
Trunk - top rear:	<input type="text" value="42"/>	<input type="text" value="3.50"/>	<input type="text" value="1.07"/>
Base of Rear Window:	<input type="text" value="44"/>	<input type="text" value="3.67"/>	<input type="text" value="1.12"/>

2015 KIA FORTE 4 DOOR SEDAN

Interior Dimensions	Inches	Feet	Meters
Front Seat Shoulder width	56	4.67	1.42
Front Seat to Headliner	39	3.25	0.99
Front Leg Room - seatback to floor (max)	42	3.50	1.07
Rear Seat Shoulder width	55	4.58	1.40
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 + SIDE AIRBAGS		

Steering Data			
Turning Circle (Diameter)	420	35	10.67
Steering Ratio:	14.50:1		
Wheel Radius:			
Tire Size (OEM):	P195/65R15		

## Acceleration &amp; Braking Information

Brake Type:	ALL DISC
ABS System:	ALL WHEEL ABS

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

d = 114.0 ft    t = 2.6 sec    a = -33.9 ft/sec<sup>2</sup>    G-force = -1.05

Acceleration:

0 to 30mph	t = 2.7 sec	a = 16.3 ft/sec <sup>2</sup>	G-force = 0.51
0 to 60mph	t = 6.8 sec	a = 12.9 ft/sec <sup>2</sup>	G-force = 0.40
45 to 65mph	t = 4.2 sec	a = 7.0 ft/sec <sup>2</sup>	G-force = 0.22

Transmission Type: 6spd MANUAL

Notes:

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

N.S.D.C = 2014 - 2016

2015 KIA FORTE 4 DOOR SEDAN

## Other Information

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

1.40

Stable

\*\*\*\*

## Center of Gravity (No Load):

	Inches	Feet	Meters
behind front axle	46.64	3.89	1.18
in front of rear axle	59.36	4.95	1.51
from side of vehicle	35.00	2.92	0.89
from ground	21.98	1.83	0.56
from front corner	87.91	7.33	2.23
from rear corner	104.40	8.70	2.65
from front bumper	80.64	6.72	2.05
from rear bumper	98.36	8.20	2.50

## Moments of Inertia Approximations (No Load):

	lb*ft*sec <sup>2</sup>	kg*m*sec <sup>2</sup>
Yaw Moment of Inertia	1663.58	230.00
Pitch Moment of Inertia	1609.14	222.47
Roll Moment of Inertia	351.48	48.59

## Front Profile Information

Angle Front Bumper to Hood Front	66.8	deg
Angle Front of Hood to Windshield Base	17.9	deg
Angle Front of Hood to Windshield Top	21.1	deg
Angle of Windshield	23.6	deg
Angle of Steering Tires at Max Turn	28.9	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 = 27 CF  
(Tested for Rear/Side Impact only)

These CF values are based upon analysis of NHTSA Barrier Crash data, and from over 1000 vehicle accidents where independent 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).

# Stiffness Values and Test Data

Derived from

NHTSA Crash Test

#10688

2019 KIA FORTE

Provided By

4N6XPRT StifCalcs®

Registered to:

4N6XPRT SYSTEMS  
8387 UNIVERSITY AVENUE  
LA MESA CA 91941-3842  
24R-030201SC01301

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4N6XPRT Systems | 8387 University Avenue | La Mesa, CA 91942 | USA  
(800) 266-9778 | (619) 464-3478 | FAX: (619) 464-2206 | Email: 4n6@4n6xpert.com

## Similar Vehicle database reader

You entered: **2015 KIA FORTE**

The Similar Vehicle Year/Model list indicates the following are Similar Models

Year Range	Make	Model	Body Styles	Wheelbase
2014 - 2018 Remarks:	KIA	FORTE	4D	106
2014 - 2018 Remarks:	KIA	FORTE 5	5D	106
2014 - 2017 Remarks:	KIA	FORTE KOUPE	RDSTR	106
2019 - 2021 Remarks: REFRESH	KIA	FORTE	4D	106

The Similar Vehicle List contained in 4N6XPRT StifCalcs is an extension of the free Vehicle Interchange List provided by Gregory C. Anderson of Scalia Safety Engineering through the 2012 model year. 4N6XPRT Systems® has taken over the maintenance of the Similar Vehicle List beginning with the 2013 version of the 4N6XPRT StifCalcs program. 4N6XPRT Systems® makes no warranties, either expressed or implied, with respect to this data, its quality, performance, merchantability, or fitness for any particular purpose. The entire risk as to its quality and performance is with the user. In no event will 4N6XPRT Systems® be liable for direct, indirect, incidental, or consequential damages resulting from any data presented here, even if 4N6XPRT Systems® has been advised of the possibility of such damages. The user must agree to assume full responsibility for any decisions which are based, in whole or in part, upon information obtained by using this data. Some of the listed similarities are based on estimates or memory. Most of the data are pulled from specification tables which may contain inaccuracies of their own. Use common sense - if something seems wrong, check it (and if it is wrong, let us know!).

If you have suggestions and/or corrections, we request and urge you to contact us - [4n6@4n6xpert.com](mailto:4n6@4n6xpert.com).

**Test Information**

Test #	10688		NHTSA Test Reference Guide Version #	V5	
Test Date	2/10/2019		Contract #	DTNH22-12-D-00260	
Contract/Study Title	NEW CAR ASSESSMENT PROGRAM FRONTAL BARRIER IMPACT TEST				
Test Objective(s)	TO OBTAIN VEHICLE CRASHWORTHINESS AND OCCUPANT RESTRAINT INFORMATION				
Test Type	NEW CAR ASSESSMENT TEST		Configuration	VEHICLE INTO BARRIER	
Impact Angle	0	Side Impact Point	0	mm	0.0 inches
		Offset Distance	0	mm	0.0 inches
		Closing Speed	56.2	Km/Hr	34.93 MPH
Test Performer	CALSPAN				
Test Reference #	TR3425				
Test Track Surface	CONCRETE		Condition	DRY	
Ambient Temperature	21	C	69.8	F	Total Number of Curves 143
Data Recorder Type	DIGITAL DATA ACQUISITION		Data Link	UMB	
Test Commentary	TR3425 - M20194206 - 2019 KIA FORTE - NCAP - FRONTAL				

**Fixed Barrier Information**

Barrier Type	RIGID	Pole Barrier Diameter	0	mm	0	inches
Barrier Shape	LOAD CELL BARRIER					
Barrier Commentary	FRONTAL FLAT BARRIER WITH 36 LOADCELLS					



**2019 KIA FORTE LEFT FRONT SEAT**

Test #	<b>10688</b>	Sex	<b>MALE</b>	
Vehicle #	<b>1</b>	Age	<b>0</b>	
Location	<b>LEFT FRONT SEAT</b>	Height	<b>0.0</b> mm	<b>0.0</b> inches
Position	<b>CENTER POSITION</b>	Weight	<b>0.0</b> kg	<b>0.0</b> pounds
Type	<b>HYBRID III DUMMY</b>			
Size	<b>50 PERCENTILE</b>			

Calibration Method	<b>HYBRID III</b>
Occupant Manufacturer	<b>MFG: HUMANETICS S/N: 142</b>
Occupant Modification	<b>NO COMMENTS</b>
Occupant Description	<b>NO COMMENTS</b>
Occupant Commentary	<b>CNTRH2 = HEADREST</b>

**Head**

## Head to -

Windshield Header	<b>357.0</b> mm	<b>14.1</b> inches	Head Injury Criteria (HIC)	<b>245.0</b>
WindShield	<b>698.0</b> mm	<b>27.5</b> inches	HIC Lower Time Interval (ms)	<b>66.9</b>
Seatback	<b>0.0</b> mm	<b>0.0</b> inches	HIC Upper Time Interval (ms)	<b>81.9</b>
Side Header	<b>214.0</b> mm	<b>8.4</b> inches		
Side Window	<b>349.0</b> mm	<b>13.7</b> inches		

Neck to Seatback **0.0** mm **0.0** inches

First Contact Region (Head)	<b>AIR BAG</b>
Second Contact Region (Head)	<b>OTHER</b>

**Chest**

## Chest to -

Dash	<b>528.0</b> mm	<b>20.8</b> inches	Arm to Door	<b>117.0</b> mm	<b>4.6</b> inches
Steering Wheel	<b>305.0</b> mm	<b>12.0</b> inches	Hip to Door	<b>160.0</b> mm	<b>6.3</b> inches
Seatback	<b>0.0</b> mm	<b>0.0</b> inches			

Chest Severity Index	<b>0.0</b>	Pelvic Peak Lateral Acceleration (g's)	<b>0.0</b>
Thoracic Trauma Index	<b>0.0</b>	Thorax Peak Acceleration (g's)	<b>44.0</b>

Lap Belt Peak Load **7833.0** Newtons **1760.9** pound ForceShoulder Belt Peak Load **5301.0** Newtons **1191.7** pound Force

First Contact Region (Chest/Abdomen)	<b>AIR BAG</b>
Second Contact Region (Chest/Abdomen)	<b>NONE</b>

**Legs**

Knees to Dash	<b>190.0</b> mm	<b>7.5</b> inches	Knees to Seatback	<b>0.0</b> mm	<b>0.0</b> inches
Left Femur Peak Load	<b>-328.0</b> Newtons	<b>-73.7</b> pounds Force			
Right Femur Peak Load	<b>-588.0</b> Newtons	<b>-132.2</b> pounds Force			

First Contact Region (Legs)	<b>DASHBOARD</b>
Second Contact Region (Legs)	

**2019 KIA FORTE LEFT FRONT SEAT**

Test #	<b>10688</b>	Sex	<b>MALE</b>
Vehicle #	<b>1</b>	Age	<b>0</b>
Location	<b>LEFT FRONT SEAT</b>	Height	<b>0.0</b> mm <b>0.0</b> inches
Position	<b>CENTER POSITION</b>	Weight	<b>0.0</b> kg <b>0.0</b> pounds
Type	<b>HYBRID III DUMMY</b>		
Size	<b>50 PERCENTILE</b>		

Calibration Method	<b>HYBRID III</b>
Occupant Manufacturer	<b>MFG: HUMANETICS S/N: 142</b>
Occupant Modification	<b>NO COMMENTS</b>
Occupant Description	<b>NO COMMENTS</b>
Occupant Commentary	<b>CNTRH2 = HEADREST</b>

**Restraints**

Restraint # 1	<b>3 POINT BELT</b>
Mounted	<b>BELT - CONVENTIONAL MOUNT</b>
Deployment	<b>NOT APPLICABLE</b>
Restraint Commentary	<b>BELT PRETENSIONER &amp; LOAD LIMITER</b>
Restraint #2	<b>FRONTAL AIRBAG</b>
Mounted	<b>STEERING WHEEL</b>
Deployment	<b>DEPLOYED PROPERLY</b>
Restraint Commentary	<b>FRONTAL AIRBAG</b>

**2019 KIA FORTE RIGHT FRONT SEAT**

Test #	<b>10688</b>	Sex	<b>FEMALE</b>	
Vehicle #	<b>1</b>	Age	<b>0</b>	
Location	<b>RIGHT FRONT SEAT</b>			
Position	<b>FORWARD OF CENTER POSITION</b>			
Type	<b>HYBRID III DUMMY</b>			
Size	<b>5 PERCENTILE</b>			
Calibration Method	<b>HYBRID III</b>			
Occupant Manufacturer	<b>MFG: DENTON S/N: 139</b>			
Occupant Modification	<b>NO COMMENTS</b>			
Occupant Description	<b>NO COMMENTS</b>			
Occupant Commentary	<b>CNTRH2 = HEADREST</b>			

**Head**

Head to -						
Windshield Header	<b>282.0</b>	mm	<b>11.1</b>	inches	Head Injury Criteria (HIC)	<b>325.0</b>
WindShield	<b>587.0</b>	mm	<b>23.1</b>	inches	HIC Lower Time Interval (ms)	<b>68.3</b>
Seatback	<b>0.0</b>	mm	<b>0.0</b>	inches	HIC Upper Time Interval (ms)	<b>83.3</b>
Side Header	<b>240.0</b>	mm	<b>9.4</b>	inches		
Side Window	<b>358.0</b>	mm	<b>14.1</b>	inches		
Neck to Seatback	<b>0.0</b>	mm	<b>0.0</b>	inches		
First Contact Region (Head)	<b>AIR BAG</b>					
Second Contact Region (Head)	<b>OTHER</b>					

**Chest**

Chest to -									
Dash	<b>408.0</b>	mm	<b>16.1</b>	inches	Arm to Door	<b>113.0</b>	mm	<b>4.4</b>	inches
Steering Wheel	<b>0.0</b>	mm	<b>0.0</b>	inches	Hip to Door	<b>191.0</b>	mm	<b>7.5</b>	inches
Seatback	<b>0.0</b>	mm	<b>0.0</b>	inches					
Chest Severity Index	<b>0.0</b>				Pelvic Peak Lateral Acceleration (g's)	<b>0.0</b>			
Thoracic Trauma Index	<b>0.0</b>				Thorax Peak Acceleration (g's)	<b>47.0</b>			
Lap Belt Peak Load	<b>5934.0</b>	Newtons	<b>1334.0</b>	pound Force					
Shoulder Belt Peak Load	<b>5454.0</b>	Newtons	<b>1226.1</b>	pound Force					
First Contact Region (Chest/Abdomen)	<b>AIR BAG</b>								
Second Contact Region (Chest/Abdomen)	<b>NONE</b>								

**Legs**

Knees to Dash	<b>129.0</b>	mm	<b>5.1</b>	inches	Knees to Seatback	<b>0.0</b>	mm	<b>0.0</b>	inches
Left Femur Peak Load	<b>-772.0</b>	Newtons	<b>-173.6</b>	pounds Force					
Right Femur Peak Load	<b>-449.0</b>	Newtons	<b>-100.9</b>	pounds Force					
First Contact Region (Legs)	<b>DASHBOARD</b>								
Second Contact Region (Legs)									

**2019 KIA FORTE RIGHT FRONT SEAT**

Test #	<b>10688</b>	Sex	<b>FEMALE</b>
Vehicle #	<b>1</b>	Age	<b>0</b>
Location	<b>RIGHT FRONT SEAT</b>	Height	<b>0.0</b> mm <b>0.0</b> inches
Position	<b>FORWARD Of CENTER POSITION</b>	Weight	<b>0.0</b> kg <b>0.0</b> pounds
Type	<b>HYBRID III DUMMY</b>		
Size	<b>5 PERCENTILE</b>		

Calibration Method	<b>HYBRID III</b>
Occupant Manufacturer	<b>MFG: DENTON S/N: 139</b>
Occupant Modification	<b>NO COMMENTS</b>
Occupant Description	<b>NO COMMENTS</b>
Occupant Commentary	<b>CNTRH2 = HEADREST</b>

**Restraints**

Restraint # 1	<b>3 POINT BELT</b>
Mounted	<b>BELT - CONVENTIONAL MOUNT</b>
Deployment	<b>NOT APPLICABLE</b>
Restraint Commentary	<b>BELT PRETENSIONER &amp; LOAD LIMITER</b>
Restraint #2	<b>FRONTAL AIRBAG</b>
Mounted	<b>DASH PANEL - TOP</b>
Deployment	<b>DEPLOYED PROPERLY</b>
Restraint Commentary	<b>FRONTAL AIRBAG</b>

## Vehicle 1 2019 KIA FORTE

Test #	<b>10688</b>		
VIN	<b>3KPF24AD7KE032256</b>	NHTSA Test Vehicle Number	<b>1</b>
Year	<b>2019</b>	Vehicle Modification Indicator	<b>PRODUCTION VEHICLE</b>
Make	<b>KIA</b>	Post-test Steering Column Shear Capsule Separation	<b>NOT APPLICABLE</b>
Model	<b>FORTE</b>	Steering Column Collapse Mechanism	<b>NOT APPLICABLE</b>
Body	<b>FOUR DOOR SEDAN</b>		
Engine	<b>4 CYLINDER TRANSVERSE FRONT</b>		
Displacement	<b>2</b> Liter	Transmission	<b>AUTOMATIC - FRONT WHEEL DRIVE</b>
Vehicle Modification(s)	Description <b>NONE</b>		
Vehicle Commentary	<b>TR3425 - M20194206 - 2019 KIA FORTE - NCAP - FRONTAL</b>		
Vehicle Length	<b>4635</b> mm	<b>182.5</b> inches	CG behind Front Axle <b>1106</b> mm <b>43.5</b> inches
Vehicle Width	<b>1768</b> mm	<b>69.6</b> inches	Center of Damage to CG Axis <b>-404</b> mm <b>-15.9</b> inches
Vehicle Wheelbase	<b>2701</b> mm	<b>106.3</b> inches	Total Length of Indentation <b>1404</b> mm <b>55.3</b> inches
Vehicle Test Weight	<b>1455</b> KG	<b>3207</b> pounds	Maximum Static Crush Depth <b>421</b> mm <b>16.6</b> inches
			Pre-Impact Speed <b>56</b> kph <b>34.9</b> mph
Vehicle Damage Index	<b>12FDEW2</b>		Principal Direction of Force <b>0</b>

## Damage Profile Distance Measurements

(Measured Left-to-Right, Rear-to-Front)

DPD 1	<b>333</b> mm	<b>13.1</b> inches
DPD 2	<b>410</b> mm	<b>16.1</b> inches
DPD 3	<b>421</b> mm	<b>16.6</b> inches
DPD 4	<b>410</b> mm	<b>16.1</b> inches
DPD 5	<b>352</b> mm	<b>13.9</b> inches
DPD 6	<b>222</b> mm	<b>8.7</b> inches

## Crush from Pre &amp; Post Test Damage Measurements

	Pre-Test	Post-Test	Crush Depth
Left Bumper Corner	<b>180.7</b> inches	<b>168.2</b> inches	<b>12.5</b> inches
	<b>4589</b> mm	<b>4272</b> mm	<b>317</b> mm
Centerline	<b>182.5</b> inches	<b>166.3</b> inches	<b>16.2</b> inches
	<b>4635</b> mm	<b>4224</b> mm	<b>411</b> mm
Right Bumper Corner	<b>180.6</b> inches	<b>166.4</b> inches	<b>14.2</b> inches
	<b>4588</b> mm	<b>4227</b> mm	<b>361</b> mm

Bumper Engagement  
(Inline Impact Only)**0.0**Sill Engagement  
(Side Impact Only)**NOT APPLICABLE**A-pillar Engagement  
(Side Impact Only)**0.0**Moving Test Cart  
Angle**DIRECT ENGAGEMENT**

*Magnitude of the Tilt Angle*  
*Measured between surface of a*  
*Rollover Test Cart and the Ground*

Moving Test Cart/Vehicle  
Crabbed Angle**0.0**

*Magnitude of the Crabbed Angle*  
*Measure Clockwise from*  
*Longitudinal Vector to Velocity Vector of Vehicle*

Vehicle Orientation on Cart  
Moving Test Cart**0**

*Magnitude of the Angle*  
*Measured between the Vehicle Orientation*  
*and Direction of Test Cart Motion*

**Vehicle 1 2019 KIA FORTE**

Test #	<b>10688</b>		
VIN	<b>3KPF24AD7KE032256</b>	NHTSA Test Vehicle Number	<b>1</b>
Year	<b>2019</b>	Vehicle Modification Indicator	<b>PRODUCTION VEHICLE</b>
Make	<b>KIA</b>	Post-test Steering Column Shear Capsule Separation	<b>NOT APPLICABLE</b>
Model	<b>FORTE</b>	Steering Column Collapse Mechanism	<b>NOT APPLICABLE</b>
Body	<b>FOUR DOOR SEDAN</b>		
Engine	<b>4 CYLINDER TRANSVERSE FRONT</b>		
Displacement	<b>2</b> Liter	Transmission	<b>AUTOMATIC - FRONT WHEEL DRIVE</b>
Vehicle Modification(s)	Description <b>NONE</b>		
Vehicle Commentary	<b>TR3425 - M20194206 - 2019 KIA FORTE - NCAP - FRONTAL</b>		
Vehicle Length	<b>4635</b> mm	<b>182.5</b> inches	CG behind Front Axle <b>1106</b> mm <b>43.5</b> inches
Vehicle Width	<b>1768</b> mm	<b>69.6</b> inches	Center of Damage to CG Axis <b>-404</b> mm <b>-15.9</b> inches
Vehicle Wheelbase	<b>2701</b> mm	<b>106.3</b> inches	Total Length of Indentation <b>1404</b> mm <b>55.3</b> inches
Vehicle Test Weight	<b>1455</b> KG	<b>3207</b> pounds	Maximum Static Crush Depth <b>421</b> mm <b>16.6</b> inches
			Pre-Impact Speed <b>56</b> kph <b>34.9</b> mph
Vehicle Damage Index	<b>12FDEW2</b>		Principal Direction of Force <b>0</b>

**Pre & Post Test Damage Measurements**

(Measurements are taken in a longitudinal direction. Except for Engine Block, all measurements are take from the Rear Vehicle Surface forward.)

**Left Side**

Pre-Test		Post-Test	
mm	inches	mm	inches
<b>4589</b>	<b>180.7</b>	<b>4272</b>	<b>168.2</b>
<b>3693</b>	<b>145.4</b>	<b>3682</b>	<b>145.0</b>
<b>3288</b>	<b>129.4</b>	<b>3284</b>	<b>129.3</b>
<b>3275</b>	<b>128.9</b>	<b>3273</b>	<b>128.9</b>
<b>3351</b>	<b>131.9</b>	<b>3349</b>	<b>131.9</b>
<b>2146</b>	<b>84.5</b>	<b>2144</b>	<b>84.4</b>
<b>2164</b>	<b>85.2</b>	<b>2162</b>	<b>85.1</b>

**Centerline**

Pre-Test		Post-Test	
mm	inches	mm	inches
Length of Vehicle at Centerline			
<b>4635</b>	<b>182.5</b>	<b>4224</b>	<b>166.3</b>
Engine Block			
<b>253</b>	<b>10.0</b>	<b>253</b>	<b>10.0</b>
Front Bumper Corner			
<b>4011</b>	<b>157.9</b>	<b>3796</b>	<b>149.4</b>
Front of Engine			
<b>3674</b>	<b>144.6</b>	<b>0</b>	<b>0.0</b>
Firewall			
Upper Leading Edge of Door			
Lower Leading Edge of Door			
Bottom of 'A' Post			
Upper Trailing Edge of Door			
Lower Trailing Edge of Door			
Steering Column			
<b>2753</b>	<b>108.4</b>	<b>2823</b>	<b>111.1</b>
Center of Seering Column to 'A' Post (Horizontal)			
<b>277</b>	<b>10.9</b>	<b>282</b>	<b>11.1</b>
Center of Steering Column to Headliner (Vertical)			
<b>397</b>	<b>15.6</b>	<b>421</b>	<b>16.6</b>

**Right Side**

Pre-Test		Post-Test	
mm	inches	mm	inches
<b>4588</b>	<b>180.6</b>	<b>4227</b>	<b>166.4</b>
<b>3695</b>	<b>145.5</b>	<b>3691</b>	<b>145.3</b>
<b>3286</b>	<b>129.4</b>	<b>3291</b>	<b>129.6</b>
<b>3276</b>	<b>129.0</b>	<b>3275</b>	<b>128.9</b>
<b>3350</b>	<b>131.9</b>	<b>3355</b>	<b>132.1</b>
<b>2146</b>	<b>84.5</b>	<b>2151</b>	<b>84.7</b>
<b>2166</b>	<b>85.3</b>	<b>2168</b>	<b>85.4</b>

**2019 KIA FORTE**

NHTSA Crash Test - #10688 - Front Impact

Pre/Post Depths - Vehicle Width - Closing Speed - Trapezoidal Average

Test Vehicle Weight = 3207 pounds  
 Vehicle Closing Speed = 34.9 MPH  
 Test Crush Length = 69.6 inches

**Pre/Post Collision Crush Depths (inches)**

	Left Side Crush	Centerline Crush	Right Side Crush	
(Driver Side)	12.5	16.2	14.2	(Pass. Side)

**CRASH 3 Stiffness Coefficients****SMAC Stiffness**

Minimum Crush = 12.5 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Average Crush = 14.8 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Maximum Crush = 16.2 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Rated No Damage Speed = Impact speed with a barrier  
 resulting in no permanent vehicle deformation  
 Normal "Rated No Damage Speed" is 2.5 or 5 mph. Some Specific  
 vehicles may, however, have a higher rating

A	B	G	Kv
			289.3
239.9	249.4	115.4	
442.9	212.4	461.7	
608.8	178.4	1038.8	
737.7	147.3	1846.8	
			206.7
202.8	178.2	115.4	
374.4	151.8	461.7	
514.6	127.5	1038.8	
623.6	105.3	1846.8	
			172.1
185.0	148.3	115.4	
341.6	126.3	461.7	
469.5	106.1	1038.8	
569.0	87.7	1846.8	

A = Maximum force per inch of damage without permanent damage, lb/in

B = Crush resistance per inch of damage width (Crash), lb/in^2

G = Energy dissipated without permanent damage, lb

Kv = Crush resistance per inch of damage width (SMAC), lb/in^2

\*\*\*\*\*

**4N6XPRT System's First Approximation Crush Factor (CF)**

Speed from Crush calculation using a generic CF of 21 as suggested in Expert AutoStats

KE Speed (mph) = SQRT(30 \* CF \* max crush in feet)

Crush	Maximum Crush	Calculated KE Speed	Calculated Error	Calculated Error
Factor	(inches)	(mph)	(mph)	(%)
21	16.6	29.1	5.8	16.6

**4N6XPRT Systems Specific Crush Factor (CF Specific to this test) = 30.2**

CF = (mph \* mph) / (30 \* max crush in feet), dimensionless

**4N6XPRT Systems CF is calculated based upon the data reported and is specific to this vehicle and this test**

**2019 KIA FORTE**

NHTSA Crash Test - #10688 - Front Impact

Pre/Post Depths - Indention Length - Closing Speed - Trapezoidal Average

Test Vehicle Weight = 3207 pounds  
 Vehicle Closing Speed = 34.9 MPH  
 Test Crush Length = 55.3 inches

**Pre/Post Collision Crush Depths (inches)**

	Left Side Crush	Centerline Crush	Right Side Crush	
(Driver Side)	12.5	16.2	14.2	(Pass. Side)

**CRASH 3 Stiffness Coefficients****SMAC Stiffness**

Minimum Crush = 12.5 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Average Crush = 14.8 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Maximum Crush = 16.2 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Rated No Damage Speed = Impact speed with a barrier  
 resulting in no permanent vehicle deformation  
 Normal "Rated No Damage Speed" is 2.5 or 5 mph. Some Specific  
 vehicles may, however, have a higher rating

A	B	G	Kv
			364.3
302.1	314.0	145.3	
557.7	267.5	581.4	
766.6	224.6	1308.1	
929.0	185.5	2325.6	
			260.3
255.4	224.4	145.3	
471.4	191.1	581.4	
648.0	160.5	1308.1	
785.3	132.6	2325.6	
			216.7
233.0	186.8	145.3	
430.1	159.1	581.4	
591.3	133.6	1308.1	
716.5	110.4	2325.6	

A = Maximum force per inch of damage without permanent damage, lb/in

B = Crush resistance per inch of damage width (Crash), lb/in<sup>2</sup>

G = Energy dissipated without permanent damage, lb

Kv = Crush resistance per inch of damage width (SMAC), lb/in<sup>2</sup>

\*\*\*\*\*

**4N6XPRT System's First Approximation Crush Factor (CF)**

Speed from Crush calculation using a generic CF of 21 as suggested in Expert AutoStats

KE Speed (mph) = SQRT(30 \* CF \* max crush in feet)

Crush	Maximum Crush	Calculated KE Speed	Calculated Error	Calculated Error
Factor	(inches)	(mph)	(mph)	(%)
21	16.6	29.1	5.8	16.6

**4N6XPRT Systems Specific Crush Factor (CF Specific to this test) = 30.2**

CF = (mph \* mph) / (30 \* max crush in feet), dimensionless

**4N6XPRT Systems CF is calculated based upon the data reported and is specific to this vehicle and this test**



**Available Test Results**  
**Front Impact Test Summary**

Report Filter Settings

Year Range: 2014 - 2018

Make: KIA

Model: FORTE

Test Number	Vehicle Info	No		Closing Speed (mph)	-----V e h i c l e   W i d t h-----  -----S t i f f n e s s   V a l u e s-----				Crush Factor
		Damage Speed (mph)	Average Crush (inch)		A	B	G	Kv	
8294	2014 KIA FORTE FOUR DOOR SEDAN	5.0	17.7	34.8	311.1	104.9	461.2	143.0	27.4
10688	2019 KIA FORTE FOUR DOOR SEDAN	5.0	14.7	34.9	375.3	152.5	461.7	207.7	33.1
8909	2015 KIA FORTE FOUR DOOR SEDAN	5.0	12.7	34.8	440.7	207.8	467.4	283.2	38.4
<b>Average (AVG)</b>					<b>375.7</b>	<b>155.1</b>	<b>463.4</b>	<b>211.3</b>	<b>33.0</b>
<b>Minimum (MIN)</b>					<b>311.1</b>	<b>104.9</b>	<b>461.2</b>	<b>143.0</b>	<b>27.4</b>
<b>Maximum (MAX)</b>					<b>440.7</b>	<b>207.8</b>	<b>467.4</b>	<b>283.2</b>	<b>38.4</b>
<b>Standard Deviation (STDev-sample)</b>					<b>64.8</b>	<b>51.5</b>	<b>3.5</b>	<b>70.2</b>	<b>5.5</b>
<b>Number of Tests (n)</b>					<b>3</b>				

**Available Test Results**  
**Front Impact Test Summary**

Report Filter Settings

Year Range: 2014 - 2018

Make: KIA

Model: FORTE

Test Number	Vehicle Info	No Damage Speed (mph)	Max Crush (inch)	Closing Speed (mph)	-----V e h i c l e   W i d t h----- -----S t i f f n e s s   V a l u e s----- A                      B                      G                      Kv				Crush Factor
10687	2019 KIA FORTE FOUR DOOR SEDAN	5.0	11.7	20.0	221.3	57.0	429.5	101.3	13.7
8294	2014 KIA FORTE FOUR DOOR SEDAN	5.0	21.6	34.8	255.2	70.6	461.2	96.2	22.5
10688	2019 KIA FORTE FOUR DOOR SEDAN	5.0	16.6	34.9	333.5	120.4	461.7	164.0	29.4
8909	2015 KIA FORTE FOUR DOOR SEDAN	5.0	15.3	34.8	364.4	142.0	467.4	193.6	31.7
<b>Average (AVG)</b>					<b>293.6</b>	<b>97.5</b>	<b>454.9</b>	<b>138.8</b>	<b>24.4</b>
<b>Minimum (MIN)</b>					<b>221.3</b>	<b>57.0</b>	<b>429.5</b>	<b>96.2</b>	<b>13.7</b>
<b>Maximum (MAX)</b>					<b>364.4</b>	<b>142.0</b>	<b>467.4</b>	<b>193.6</b>	<b>31.7</b>
<b>Standard Deviation (STDev-sample)</b>					<b>66.6</b>	<b>40.3</b>	<b>17.2</b>	<b>47.8</b>	<b>8.1</b>
<b>Number of Tests (n)</b>					<b>4</b>				

# Expert VIN DeCoder®

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Version Number 4.4.0.1

DeCoded VIN: **KL1TG66626B669799**

Model:	2006 Chevrolet Aveo LT 4 door Sedan		
Engine Size:	1.6L/ 97.5cu.in.		
Engine Description:	Inline 4 with Dual Overhead Cam (DOHC)		
Horse Power:	103 @ 6000rpm		
Torque:	107lb-ft at 3600rpm		
Injection System:	Multi-Port Fuel Injection (MPI)		
PSI:	Not Available	Ignition:	Electronic
Manufacturer:	Geo/Chevrolet		
Assembly Plant:	Bupyeong, South Korea		
Drive Wheels:	This is a Front wheel Drive vehicle w/ Manual Belts w/Driver & Passenger Air Bags (Front/Side)		

The First through Third characters (KL1) indicate a Chevrolet Passenger Car made in South Korea

The Fourth through Fifth characters (TG) indicate an Aveo LT

The Sixth character (6) indicates a 4 door Sedan

The Seventh character (6) indicates Manual Belts w/Driver & Passenger Air Bags (Front/Side)

The Eighth character (6) indicates the OEM engine: 1.6L/ 97.5cu.in., L4 DOHC

The Ninth character (the check digit) is entered as 2.

The VIN appears valid, the calculated value is 2.

The Tenth character (6) indicates the model year 2006

The Eleventh character (B) indicates the vehicle was made in the assembly plant in Bupyeong, South Korea

The Twelfth through Seventeenth characters (669799) indicate the Serial Number and are unique to this vehicle.

# Expert AutoStats®

Version 6.4.1.1

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PROVIDED BY:

4N6XPRT Systems

8387 University Avenue

La Mesa CA 91941

5/18/2025

2008 CHEVROLET AVEO 4 DOOR HATCHBACK

Curb Weight:		<div>2348</div> lbs.		<div>1065</div> kg.
Curb Weight Distribution -	Front:	<div>62</div> %	Rear:	<div>38</div> %
Gross Vehicle Weight Rating:		<div>3287</div> lbs.		<div>1491</div> kg.
Number of Tires on Vehicle:		<div>4</div>		
Drive Wheels:		<div>FRONT</div>		

Horizontal Dimensions	Inches	Feet	Meters
Total Length	<div>153</div>	<div>12.75</div>	<div>3.89</div>
Wheelbase:	<div>98</div>	<div>8.17</div>	<div>2.49</div>
Front Bumper to Front Axle:	<div>33</div>	<div>2.75</div>	<div>0.84</div>
Front Bumper to Front of Front Well:	<div>19</div>	<div>1.58</div>	<div>0.48</div>
Front Bumper to Front of Hood:	<div>5</div>	<div>0.42</div>	<div>0.13</div>
Front Bumper to Base of windshield:	<div>36</div>	<div>3.00</div>	<div>0.91</div>
Front Bumper to Top of Windshield:	<div>68</div>	<div>5.67</div>	<div>1.73</div>
Rear Bumper to Rear Axle:	<div>22</div>	<div>1.83</div>	<div>0.56</div>
Rear Bumper to Rear of Rear Well:	<div>9</div>	<div>0.75</div>	<div>0.23</div>
Rear Bumper to Rear of Trunk:	<div>4</div>	<div>0.33</div>	<div>0.10</div>
Rear Bumper to Base of Rear Window:	<div>5</div>	<div>0.42</div>	<div>0.13</div>
Width Dimensions			
Maximum Width:	<div>66</div>	<div>5.50</div>	<div>1.68</div>
Front Track:	<div>57</div>	<div>4.75</div>	<div>1.45</div>
Rear Track:	<div>56</div>	<div>4.67</div>	<div>1.42</div>
Vertical Dimensions			
Height:	<div>59</div>	<div>4.92</div>	<div>1.50</div>
Ground to -			
Front Bumper (Top)	<div>21</div>	<div>1.75</div>	<div>0.53</div>
Headlight - center	<div>26</div>	<div>2.17</div>	<div>0.66</div>
Hood - top front:	<div>28</div>	<div>2.33</div>	<div>0.71</div>
Base of Windshield	<div>38</div>	<div>3.17</div>	<div>0.97</div>
Rear Bumper - top:	<div>25</div>	<div>2.08</div>	<div>0.64</div>
Trunk - top rear:	<div>38</div>	<div>3.17</div>	<div>0.97</div>
Base of Rear Window:	<div>39</div>	<div>3.25</div>	<div>0.99</div>

2008 CHEVROLET AVEO 4 DOOR HATCHBACK

## Interior Dimensions

	Inches	Feet	Meters
Front Seat Shoulder width	54	4.50	1.37
Front Seat to Headliner	39	3.25	0.99
Front Leg Room - seatback to floor (max)	41	3.42	1.04
Rear Seat Shoulder width	53	4.42	1.35
Rear Seat to Headliner	38	3.17	0.97
Front Leg Room - seatback to floor (min)	35	2.92	0.89

Seatbelts: 3pt - front and rear

Airbags: FRONT SEAT AIRBAGS

## Steering Data

Turning Circle (Diameter)	312	26	7.92
Steering Ratio:	:1		
Wheel Radius:	10	0.83	0.25
Tire Size (OEM):	P185/60R14		

## Acceleration &amp; Braking Information

Brake Type: FRONT DISC - REAR DRUM

ABS System: ALL WHEEL ABS - OPTIONAL

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

d = 146.0 ft    t = 3.3 sec    a = -26.5 ft/sec<sup>2</sup>    G-force = -0.82

## Acceleration:

0 to 30mph	t = 2.7 sec	a = 16.3 ft/sec <sup>2</sup>	G-force = 0.51
0 to 60mph	t = 10.2 sec	a = 8.6 ft/sec <sup>2</sup>	G-force = 0.27
45 to 65mph	t = 6.1 sec	a = 4.8 ft/sec <sup>2</sup>	G-force = 0.15

Transmission Type: 5spd MANUAL

## Notes:

Federal Bumper Standard Requirements: 2.5 mph

This vehicles Rated Bumper Strength: 2.5 mph

N.S.D.C = 2004 - 2011

2008 CHEVROLET AVEO 4 DOOR HATCHBACK

## Other Information

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

1.24

Reasonably Stable

\*\*\*

## Center of Gravity (No Load):

	Inches	Feet	Meters
behind front axle	37.24	3.10	0.95
in front of rear axle	60.76	5.06	1.54
from side of vehicle	33.00	2.75	0.84
from ground	22.80	1.90	0.58
from front corner	77.61	6.47	1.97
from rear corner	89.10	7.42	2.26
from front bumper	70.24	5.85	1.78
from rear bumper	82.76	6.90	2.10

## Moments of Inertia Approximations (No Load):

	lb*ft*sec <sup>2</sup>	kg*m*sec <sup>2</sup>
Yaw Moment of Inertia	1212.44	167.63
Pitch Moment of Inertia	1175.52	162.52
Roll Moment of Inertia	272.64	37.69

## Front Profile Information

Angle Front Bumper to Hood Front	54.5	deg
Angle Front of Hood to Windshield Base	17.9	deg
Angle Front of Hood to Windshield Top	24.7	deg
Angle of Windshield	30.7	deg
Angle of Steering Tires at Max Turn	36.0	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 = 27 CF  
(Tested for Rear/Side Impact only)

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

The rear Impact data with more than 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).

# Expert VIN DeCoder®

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Version Number 4.4.0.1

DeCoded VIN: 1C4NJCBA2GD621639

Model:	2016 Jeep Compass 4x2 Sport Hatchback		
Engine Size:	2.0 L/ 122 cu.in.		
Engine Description:	In-line 4 cylinder Double Overhead Cam		
Horse Power:	158 @ 6,400 rpm		
Torque:	141 lb-ft at 5,000 rpm		
Injection System:	Fuel Injection		
PSI:	N/A	Ignition:	Electronic
Manufacturer:	Chrysler		
Assembly Plant:	Belvidere, Illinois		
Drive Wheels:	This is a Front wheel Drive vehicle with Manual Belts w/ Front Airbags and Side Airbags		

The First through Third characters (1C4) indicate a Chrysler Multi-purpose Vehicle (MPV) made in the U.S.A.

The Fourth character (N) indicates the GVWR 4001-5000 lbs with Hydraulic Brakes and Manual Belts w/ Front Airbags and Side Airbags

The Fifth through Seventh characters (JCB) indicate a Compass Front wheel Drive and a Sport series and a Hatchback

The Eighth character (A) indicates the OEM engine: 2.0 L/ 122 cu.in., L4 DOHC

The Ninth character (the check digit) is entered as 2.

The VIN appears valid, the calculated value is 2.

The Tenth character (G) indicates the model year 2016

The Eleventh character (D) indicates the vehicle was made in the assembly plant in Belvidere, Illinois

The Twelfth through Seventeenth characters (621639) indicate the Serial Number and are unique to this vehicle.

## Expert AutoStats®

Version 6.4.1.1

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PROVIDED BY:

4N6XPRT Systems

8387 University Avenue

La Mesa CA 91941

5/18/2025

2016 JEEP COMPASS 4 DOOR 4X2 UTILITY

Curb Weight:		<input type="text" value="3150"/>	lbs.		<input type="text" value="1429"/>	kg.
Curb Weight Distribution -	Front:	<input type="text" value="59"/>	%	Rear:	<input type="text" value="41"/>	%
Gross Vehicle Weight Rating:		<input type="text" value="4435"/>	lbs.		<input type="text" value="2012"/>	kg.
Number of Tires on Vehicle:		<input type="text" value="4"/>				
Drive Wheels:		<input type="text" value="FRONT"/>				

Horizontal Dimensions	Inches	Feet	Meters
Total Length	<input type="text" value="175"/>	<input type="text" value="14.58"/>	<input type="text" value="4.44"/>
Wheelbase:	<input type="text" value="104"/>	<input type="text" value="8.67"/>	<input type="text" value="2.64"/>
Front Bumper to Front Axle:	<input type="text" value="36"/>	<input type="text" value="3.00"/>	<input type="text" value="0.91"/>
Front Bumper to Front of Front Well:	<input type="text"/>	<input type="text"/>	<input type="text"/>
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="43"/>	<input type="text" value="3.58"/>	<input type="text" value="1.09"/>
Front Bumper to Top of windshield:	<input type="text" value="70"/>	<input type="text" value="5.83"/>	<input type="text" value="1.78"/>
Rear Bumper to Rear Axle:	<input type="text" value="35"/>	<input type="text" value="2.92"/>	<input type="text" value="0.89"/>
Rear Bumper to Rear of Rear Well:	<input type="text"/>	<input type="text"/>	<input type="text"/>
Rear Bumper to Rear of Trunk:	<input type="text" value="5"/>	<input type="text" value="0.42"/>	<input type="text" value="0.13"/>
Rear Bumper to Base of Rear Window:	<input type="text" value="7"/>	<input type="text" value="0.58"/>	<input type="text" value="0.18"/>
Width Dimensions			
Maximum Width:	<input type="text" value="71"/>	<input type="text" value="5.92"/>	<input type="text" value="1.80"/>
Front Track:	<input type="text" value="60"/>	<input type="text" value="5.00"/>	<input type="text" value="1.52"/>
Rear Track:	<input type="text" value="60"/>	<input type="text" value="5.00"/>	<input type="text" value="1.52"/>
Vertical Dimensions			
Height:	<input type="text" value="65"/>	<input type="text" value="5.42"/>	<input type="text" value="1.65"/>
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="32"/>	<input type="text" value="2.67"/>	<input type="text" value="0.81"/>
Hood - top front:	<input type="text" value="38"/>	<input type="text" value="3.17"/>	<input type="text" value="0.97"/>
Base of Windshield	<input type="text" value="44"/>	<input type="text" value="3.67"/>	<input type="text" value="1.12"/>
Rear Bumper - top:	<input type="text" value="28"/>	<input type="text" value="2.33"/>	<input type="text" value="0.71"/>
Trunk - top rear:	<input type="text" value="45"/>	<input type="text" value="3.75"/>	<input type="text" value="1.14"/>
Base of Rear Window:	<input type="text" value="46"/>	<input type="text" value="3.83"/>	<input type="text" value="1.17"/>



2016 JEEP COMPASS 4 DOOR 4X2 UTILITY

## Interior Dimensions

	Inches	Feet	Meters
Front Seat Shoulder width	55	4.58	1.40
Front Seat to Headliner	41	3.42	1.04
Front Leg Room - seatback to floor (max)	41	3.42	1.04
Rear Seat Shoulder width	54	4.50	1.37
Rear Seat to Headliner	40	3.33	1.02
Front Leg Room - seatback to floor (min)	39	3.25	0.99

Seatbelts: 3pt - front and rear

Airbags: FRONT SEAT AIRBAGS + SIDE AIRBAGS

## Steering Data

Turning Circle (Diameter)	432	36	10.97
Steering Ratio:	:1		
Wheel Radius:			
Tire Size (OEM):	205/70R16		

## Acceleration &amp; Braking Information

Brake Type: FRONT DISC - REAR DRUM

ABS System: ALL WHEEL ABS

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

d =  ft    t =  sec    a =  ft/sec<sup>2</sup>    G-force = 

Acceleration:

0 to 30mph    t =  sec    a =  ft/sec<sup>2</sup>    G-force = 0 to 60mph    t =  sec    a =  ft/sec<sup>2</sup>    G-force = 45 to 65mph    t =  sec    a =  ft/sec<sup>2</sup>    G-force = 

Transmission Type: 5spd MANUAL

Notes:

Federal Bumper Standard Requirements: No Requirement

N.S.D.C = 2014 - 2021

## 2016 JEEP COMPASS 4 DOOR 4X2 UTILITY

## Other Information

Tip-Over Stability Ratio =

1.16

Reasonably Stable

NHTSA Star Rating (calculated)

\*\*\*

## Center of Gravity (No Load):

behind front axle

=

Inches

42.64

Feet

3.55

Meters

1.08

in front of rear axle

=

61.36

5.11

1.56

from side of vehicle

=

35.50

2.96

0.90

from ground

=

25.94

2.16

0.66

from front corner

=

86.28

7.19

2.19

from rear corner

=

102.69

8.56

2.61

from front bumper

=

78.64

6.55

2.00

from rear bumper

=

96.36

8.03

2.45

## Moments of Inertia Approximations (No Load):

lb\*ft\*sec<sup>2</sup>kg\*m\*sec<sup>2</sup>

Yaw Moment of Inertia

=

1901.50

262.89

Pitch Moment of Inertia

=

1871.00

258.68

Roll Moment of Inertia

=

458.00

63.32

## Front Profile Information

Angle Front Bumper to Hood Front

=

70.6

deg

Angle Front of Hood to Windshield Base

=

9.2

deg

Angle Front of Hood to Windshield Top

=

21.3

deg

Angle of Windshield

=

35.1

deg

Angle of Steering Tires at Max Turn

=

27.6

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

=

27 CF

(Tested for Rear/Side Impact only)

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

The rear Impact data with more than 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).

# Stiffness Values and Test Data

Derived from

NHTSA Crash Test

#8036

2013 JEEP COMPASS

Provided By

4N6XPRT StifCalcs®

Registered to:

4N6XPRT SYSTEMS  
8387 UNIVERSITY AVENUE  
LA MESA CA 91941-3842  
24R-030201SC01301

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4N6XPRT Systems | 8387 University Avenue | La Mesa, CA 91942 | USA  
(800) 266-9778 | (619) 464-3478 | FAX: (619) 464-2206 | Email: 4n6@4n6xpert.com

## Similar Vehicle database reader

You entered: **2016 JEEP COMPASS**

The Similar Vehicle Year/Model list indicates the following are Similar Models

Year Range	Make	Model	Body Styles	Wheelbase
2014 - 2021 Remarks:	JEEP	COMPASS	SUV	104
2006 - 2012 Remarks:	DODGE	CALIBER	5D	103.7, 133
2007 - 2017 Remarks:	JEEP	PATRIOT	SUV	103.7
2007 - 2013 Remarks:	JEEP	COMPASS		103.7

The Similar Vehicle List contained in 4N6XPRT StifCalcs is an extension of the free Vehicle Interchange List provided by Gregory C. Anderson of Scalia Safety Engineering through the 2012 model year. 4N6XPRT Systems® has taken over the maintenance of the Similar Vehicle List beginning with the 2013 version of the 4N6XPRT StifCalcs program. 4N6XPRT Systems® makes no warranties, either expressed or implied, with respect to this data, its quality, performance, merchantability, or fitness for any particular purpose. The entire risk as to its quality and performance is with the user. In no event will 4N6XPRT Systems® be liable for direct, indirect, incidental, or consequential damages resulting from any data presented here, even if 4N6XPRT Systems® has been advised of the possibility of such damages. The user must agree to assume full responsibility for any decisions which are based, in whole or in part, upon information obtained by using this data. Some of the listed similarities are based on estimates or memory. Most of the data are pulled from specification tables which may contain inaccuracies of their own. Use common sense - if something seems wrong, check it (and if it is wrong, let us know!).

If you have suggestions and/or corrections, we request and urge you to contact us - [4n6@4n6xpert.com](mailto:4n6@4n6xpert.com).

**Test Information**

Test #	<b>8036</b>		NHTSA Test Reference Guide Version #	<b>V5</b>	
Test Date	<b>10/24/2012</b>		Contract #	<b>DTNH22-12-R-00540</b>	
Contract/Study Title	<b>NEW CAR ASSESSMENT PROGRAM FRONTAL IMPACT TESTING</b>				
Test Objective(s)	<b>REDUCE THE RISK OF SERIOUS &amp; FATAL INJURY IN FRONTAL IMPACT CRASHES</b>				
Test Type	<b>NEW CAR ASSESSMENT TEST</b>		Configuration	<b>VEHICLE INTO BARRIER</b>	
Impact Angle	<b>0</b>	Side Impact Point	<b>0</b>	mm	<b>0.0</b> inches
		Offset Distance	<b>0</b>	mm	<b>0.0</b> inches
		Closing Speed	<b>56.5</b>	Km/Hr	<b>35.11</b> MPH
Test Performer	<b>TRC OF OHIO</b>				
Test Reference #	<b>121024</b>				
Test Track Surface	<b>CONCRETE</b>		Condition	<b>DRY</b>	
Ambient Temperature	<b>21</b> C	<b>69.8</b> F	Total Number of Curves	<b>136</b>	
Data Recorder Type	<b>DIGITAL DATA ACQUISITION</b>		Data Link	<b>TEL</b>	
Test Commentary	<b>COTR=BRIAN PARK</b>				

**Fixed Barrier Information**

Barrier Type	<b>RIGID</b>	Pole Barrier Diameter	<b>0</b>	mm	<b>0</b>	inches
Barrier Shape	<b>LOAD CELL BARRIER</b>					
Barrier Commentary						

**2013 JEEP COMPASS LEFT FRONT SEAT**

Test #	<b>8036</b>	Sex	<b>MALE</b>
Vehicle #	<b>1</b>	Age	<b>0</b>
Location	<b>LEFT FRONT SEAT</b>	Height	<b>0.0</b> mm <b>0.0</b> inches
Position	<b>CENTER POSITION</b>	Weight	<b>0.0</b> kg <b>0.0</b> pounds
Type	<b>HYBRID III DUMMY</b>		
Size	<b>50 PERCENTILE</b>		
Calibration Method	<b>HYBRID III</b>		
Occupant Manufacturer	<b>FIRST TECH., S/N: 037</b>		
Occupant Modification			
Occupant Description			
Occupant Commentary	<b>HIC=15 MSEC; CNTRH2=HEAD RESTRAINT</b>		

**Head**

Head to -				Head Injury Criteria (HIC)	<b>324.0</b>
Windshield Header	<b>478.0</b>	mm	<b>18.8</b>	inches	
WindShield	<b>723.0</b>	mm	<b>28.5</b>	inches	HIC Lower Time Interval (ms) <b>66.2</b>
Seatback	<b>0.0</b>	mm	<b>0.0</b>	inches	HIC Upper Time Interval (ms) <b>81.3</b>
Side Header	<b>243.0</b>	mm	<b>9.6</b>	inches	
Side Window	<b>369.0</b>	mm	<b>14.5</b>	inches	
Neck to Seatback	<b>0.0</b>	mm	<b>0.0</b>	inches	
First Contact Region (Head)	<b>AIR BAG</b>				
Second Contact Region (Head)	<b>OTHER</b>				

**Chest**

Chest to -					
Dash	<b>550.0</b>	mm	<b>21.7</b>	inches	Arm to Door <b>104.0</b> mm <b>4.1</b> inches
Steering Wheel	<b>282.0</b>	mm	<b>11.1</b>	inches	Hip to Door <b>150.0</b> mm <b>5.9</b> inches
Seatback	<b>0.0</b>	mm	<b>0.0</b>	inches	
Chest Severity Index	<b>429.0</b>				Pelvic Peak Lateral Acceleration (g's) <b>0.0</b>
Thoracic Trauma Index	<b>0.0</b>				Thorax Peak Acceleration (g's) <b>46.0</b>
Lap Belt Peak Load	<b>6168.0</b>	Newtons	<b>1386.6</b>	pound Force	
Shoulder Belt Peak Load	<b>5147.0</b>	Newtons	<b>1157.1</b>	pound Force	
First Contact Region (Chest/Abdomen)	<b>AIR BAG</b>				
Second Contact Region (Chest/Abdomen)	<b>NONE</b>				

**Legs**

Knees to Dash	<b>35.0</b>	mm	<b>1.4</b>	inches	Knees to Seatback <b>0.0</b> mm <b>0.0</b> inches
Left Femur Peak Load	<b>-3700.0</b>	Newtons	<b>-831.8</b>	pounds Force	
Right Femur Peak Load	<b>-5155.0</b>	Newtons	<b>-1158.9</b>	pounds Force	
First Contact Region (Legs)	<b>KNEE RESTRAINT</b>				
Second Contact Region (Legs)					

**2013 JEEP COMPASS LEFT FRONT SEAT**

Test #	<b>8036</b>	Sex	<b>MALE</b>	
Vehicle #	<b>1</b>	Age	<b>0</b>	
Location	<b>LEFT FRONT SEAT</b>	Height	<b>0.0</b> mm	<b>0.0</b> inches
Position	<b>CENTER POSITION</b>	Weight	<b>0.0</b> kg	<b>0.0</b> pounds
Type	<b>HYBRID III DUMMY</b>			
Size	<b>50 PERCENTILE</b>			

Calibration Method	<b>HYBRID III</b>
Occupant Manufacturer	<b>FIRST TECH., S/N: 037</b>
Occupant Modification	
Occupant Description	
Occupant Commentary	<b>HIC=15 MSEC; CNTRH2=HEAD RESTRAINT</b>

**Restraints**

Restraint # 1	<b>3 POINT BELT</b>
Mounted	<b>BELT - CONVENTIONAL MOUNT</b>
Deployment	<b>NOT APPLICABLE</b>
Restraint Commentary	
Restraint #2	<b>FRONTAL AIRBAG</b>
Mounted	<b>STEERING WHEEL</b>
Deployment	<b>DEPLOYED PROPERLY</b>
Restraint Commentary	<b>FRONTAL AIR BAG</b>

**2013 JEEP COMPASS RIGHT FRONT SEAT**

Test #	<b>8036</b>	Sex	<b>FEMALE</b>
Vehicle #	<b>1</b>	Age	<b>0</b>
Location	<b>RIGHT FRONT SEAT</b>	Height	<b>0.0</b> mm <b>0.0</b> inches
Position	<b>FORWARD OF CENTER POSITION</b>	Weight	<b>0.0</b> kg <b>0.0</b> pounds
Type	<b>HYBRID III DUMMY</b>		
Size	<b>5 PERCENTILE</b>		
Calibration Method	<b>HYBRID III</b>		
Occupant Manufacturer	<b>FTSS; S/N: 426</b>		
Occupant Modification			
Occupant Description			
Occupant Commentary	<b>CNTRH2=HEAD RESTRAINT</b>		

**Head**

Head to -				Head Injury Criteria (HIC)	<b>324.0</b>
Windshield Header	<b>393.0</b>	mm	<b>15.5</b>	inches	
WindShield	<b>736.0</b>	mm	<b>29.0</b>	inches	HIC Lower Time Interval (ms) <b>64.9</b>
Seatback	<b>0.0</b>	mm	<b>0.0</b>	inches	HIC Upper Time Interval (ms) <b>79.9</b>
Side Header	<b>262.0</b>	mm	<b>10.3</b>	inches	
Side Window	<b>391.0</b>	mm	<b>15.4</b>	inches	
Neck to Seatback	<b>0.0</b>	mm	<b>0.0</b>	inches	
First Contact Region (Head)	<b>AIR BAG</b>				
Second Contact Region (Head)	<b>OTHER</b>				

**Chest**

Chest to -					
Dash	<b>372.0</b>	mm	<b>14.6</b>	inches	Arm to Door <b>88.0</b> mm <b>3.5</b> inches
Steering Wheel	<b>0.0</b>	mm	<b>0.0</b>	inches	Hip to Door <b>169.0</b> mm <b>6.7</b> inches
Seatback	<b>0.0</b>	mm	<b>0.0</b>	inches	
Chest Severity Index	<b>435.0</b>				Pelvic Peak Lateral Acceleration (g's) <b>0.0</b>
Thoracic Trauma Index	<b>0.0</b>				Thorax Peak Acceleration (g's) <b>45.0</b>
Lap Belt Peak Load	<b>4104.0</b>	Newtons	<b>922.6</b>	pound Force	
Shoulder Belt Peak Load	<b>17326.0</b>	Newtons	<b>3895.1</b>	pound Force	
First Contact Region (Chest/Abdomen)	<b>AIR BAG</b>				
Second Contact Region (Chest/Abdomen)	<b>NONE</b>				

**Legs**

Knees to Dash	<b>37.0</b>	mm	<b>1.5</b>	inches	Knees to Seatback <b>0.0</b> mm <b>0.0</b> inches
Left Femur Peak Load	<b>-3294.0</b>	Newtons	<b>-740.5</b>	pounds Force	
Right Femur Peak Load	<b>-2406.0</b>	Newtons	<b>-540.9</b>	pounds Force	
First Contact Region (Legs)	<b>KNEE RESTRAINT</b>				
Second Contact Region (Legs)					



**2013 JEEP COMPASS RIGHT FRONT SEAT**

Test #	<b>8036</b>	Sex	<b>FEMALE</b>	
Vehicle #	<b>1</b>	Age	<b>0</b>	
Location	<b>RIGHT FRONT SEAT</b>	Height	<b>0.0</b> mm	<b>0.0</b> inches
Position	<b>FORWARD Of CENTER POSITION</b>	Weight	<b>0.0</b> kg	<b>0.0</b> pounds
Type	<b>HYBRID III DUMMY</b>			
Size	<b>5 PERCENTILE</b>			

Calibration Method	<b>HYBRID III</b>
Occupant Manufacturer	<b>FTSS; S/N: 426</b>
Occupant Modification	
Occupant Description	
Occupant Commentary	<b>CNTRH2=HEAD RESTRAINT</b>

**Restraints**

Restraint # 1	<b>3 POINT BELT</b>
Mounted	<b>BELT - CONVENTIONAL MOUNT</b>
Deployment	<b>NOT APPLICABLE</b>
Restraint Commentary	
Restraint #2	<b>FRONTAL AIRBAG</b>
Mounted	<b>DASH PANEL - TOP</b>
Deployment	<b>DEPLOYED PROPERLY</b>
Restraint Commentary	<b>FRONTAL AIR BAG</b>

**Vehicle 1 2013 JEEP COMPASS**

Test #	<b>8036</b>		
VIN	<b>1C4NJDBB0DD158488</b>	NHTSA Test Vehicle Number	<b>1</b>
Year	<b>2013</b>	Vehicle Modification Indicator	<b>PRODUCTION VEHICLE</b>
Make	<b>JEEP</b>	Post-test Steering Column Shear Capsule Separation	<b>NOT APPLICABLE</b>
Model	<b>COMPASS</b>	Steering Column Collapse Mechanism	<b>NOT APPLICABLE</b>
Body	<b>UTILITY VEHICLE</b>		
Engine	<b>4 CYLINDER TRANSVERSE FRONT</b>		
Displacement	<b>2.4</b> Liter	Transmission	<b>AUTOMATIC - FOUR WHEEL DRIVE</b>
Vehicle Modification(s)	Description <b>UNMODIFIED</b>		
Vehicle Commentary	<b>MODEL=COMPASS SPORT 4WD; MAX CRUSH AT CENTERLINE</b>		
Vehicle Length	<b>4440</b> mm	<b>174.8</b> inches	CG behind Front Axle <b>1191</b> mm <b>46.9</b> inches
Vehicle Width	<b>1810</b> mm	<b>71.3</b> inches	Center of Damage to CG Axis <b>0</b> mm <b>0.0</b> inches
Vehicle Wheelbase	<b>2630</b> mm	<b>103.5</b> inches	Total Length of Indentation <b>1115</b> mm <b>43.9</b> inches
Vehicle Test Weight	<b>1723</b> KG	<b>3798</b> pounds	Maximum Static Crush Depth <b>435</b> mm <b>17.1</b> inches
			Pre-Impact Speed <b>57</b> kph <b>35.1</b> mph
Vehicle Damage Index	<b>12FDEW2</b>		Principal Direction of Force <b>0</b>

Damage Profile Distance Measurements

(Measured Left-to-Right, Rear-to-Front)

DPD 1	<b>360</b> mm	<b>14.2</b> inches
DPD 2	<b>385</b> mm	<b>15.2</b> inches
DPD 3	<b>395</b> mm	<b>15.6</b> inches
DPD 4	<b>415</b> mm	<b>16.3</b> inches
DPD 5	<b>392</b> mm	<b>15.4</b> inches
DPD 6	<b>375</b> mm	<b>14.8</b> inches

Crush from Pre & Post Test Damage Measurements

	Pre-Test	Post-Test	Crush Depth
Left Bumper Corner	<b>170.9</b> inches	<b>156.7</b> inches	<b>14.2</b> inches
	<b>4340</b> mm	<b>3980</b> mm	<b>360</b> mm
Centerline	<b>174.8</b> inches	<b>157.7</b> inches	<b>17.1</b> inches
	<b>4440</b> mm	<b>4005</b> mm	<b>435</b> mm
Right Bumper Corner	<b>171.1</b> inches	<b>156.3</b> inches	<b>14.8</b> inches
	<b>4345</b> mm	<b>3970</b> mm	<b>375</b> mm

Bumper Engagement  
(Inline Impact Only)

**0.0**

Sill Engagement  
(Side Impact Only)

**NOT APPLICABLE**

A-pillar Engagement  
(Side Impact Only)

**0.0**

Moving Test Cart  
Angle

**NOT APPLICABLE**

*Magnitude of the Tilt Angle  
Measured between surface of a  
Rollover Test Cart and the Ground*

Moving Test Cart/Vehicle  
Crabbed Angle

**0.0**

*Magnitude of the Crabbed Angle  
Measure Clockwise from  
Longitudinal Vector to Velocity Vector of Vehicle*

Vehicle Orientation on Cart  
Moving Test Cart

**0**

*Magnitude of the Angle  
Measured between the Vehicle Orientation  
and Direction of Test Cart Motion*

**Vehicle 1 2013 JEEP COMPASS**

Test #	<b>8036</b>		
VIN	<b>1C4NJDBB0DD158488</b>	NHTSA Test Vehicle Number	<b>1</b>
Year	<b>2013</b>	Vehicle Modification Indicator	<b>PRODUCTION VEHICLE</b>
Make	<b>JEEP</b>	Post-test Steering Column Shear Capsule Separation	<b>NOT APPLICABLE</b>
Model	<b>COMPASS</b>	Steering Column Collapse Mechanism	<b>NOT APPLICABLE</b>
Body	<b>UTILITY VEHICLE</b>		
Engine	<b>4 CYLINDER TRANSVERSE FRONT</b>		
Displacement	<b>2.4</b> Liter	Transmission	<b>AUTOMATIC - FOUR WHEEL DRIVE</b>
Vehicle Modification(s)	Description <b>UNMODIFIED</b>		
Vehicle Commentary	<b>MODEL=COMPASS SPORT 4WD; MAX CRUSH AT CENTERLINE</b>		
Vehicle Length	<b>4440</b> mm	<b>174.8</b> inches	CG behind Front Axle <b>1191</b> mm <b>46.9</b> inches
Vehicle Width	<b>1810</b> mm	<b>71.3</b> inches	Center of Damage to CG Axis <b>0</b> mm <b>0.0</b> inches
Vehicle Wheelbase	<b>2630</b> mm	<b>103.5</b> inches	Total Length of Indentation <b>1115</b> mm <b>43.9</b> inches
Vehicle Test Weight	<b>1723</b> KG	<b>3798</b> pounds	Maximum Static Crush Depth <b>435</b> mm <b>17.1</b> inches
			Pre-Impact Speed <b>57</b> kph <b>35.1</b> mph
Vehicle Damage Index	<b>12FDEW2</b>		Principal Direction of Force <b>0</b>

**Pre & Post Test Damage Measurements**

(Measurements are taken in a longitudinal direction. Except for Engine Block, all measurements are take from the Rear Vehicle Surface forward.)

**Left Side**

Pre-Test		Post-Test	
mm	inches	mm	inches
<b>4340</b>	<b>170.9</b>	<b>3980</b>	<b>156.7</b>
<b>3425</b>	<b>134.8</b>	<b>0</b>	<b>0.0</b>
<b>3010</b>	<b>118.5</b>	<b>3005</b>	<b>118.3</b>
<b>2790</b>	<b>109.8</b>	<b>2923</b>	<b>115.1</b>
<b>2960</b>	<b>116.5</b>	<b>2970</b>	<b>116.9</b>
<b>1994</b>	<b>78.5</b>	<b>1990</b>	<b>78.3</b>
<b>2002</b>	<b>78.8</b>	<b>1980</b>	<b>78.0</b>

**Centerline**

Pre-Test		Post-Test	
mm	inches	mm	inches
Length of Vehicle at Centerline			
<b>4440</b>	<b>174.8</b>	<b>4005</b>	<b>157.7</b>
Engine Block			
<b>850</b>	<b>33.5</b>	<b>850</b>	<b>33.5</b>
Front Bumper Corner			
<b>3950</b>	<b>155.5</b>	<b>3705</b>	<b>145.9</b>
Front of Engine			
<b>3495</b>	<b>137.6</b>	<b>0</b>	<b>0.0</b>
Firewall			
<b>3007</b>	<b>118.4</b>	<b>3007</b>	<b>118.4</b>
<b>2935</b>	<b>115.6</b>	<b>2934</b>	<b>115.5</b>
<b>2960</b>	<b>116.5</b>	<b>2970</b>	<b>116.9</b>
<b>1994</b>	<b>78.5</b>	<b>1992</b>	<b>78.4</b>
<b>1994</b>	<b>78.5</b>	<b>1989</b>	<b>78.3</b>
Steering Column			
<b>2565</b>	<b>101.0</b>	<b>2610</b>	<b>102.8</b>
Center of Seering Column to 'A' Post (Horizontal)			
<b>320</b>	<b>12.6</b>	<b>320</b>	<b>12.6</b>
Center of Steering Column to Headliner (Vertical)			
<b>460</b>	<b>18.1</b>	<b>400</b>	<b>15.7</b>

**Right Side**

Pre-Test		Post-Test	
mm	inches	mm	inches
<b>4345</b>	<b>171.1</b>	<b>3970</b>	<b>156.3</b>
<b>3437</b>	<b>135.3</b>	<b>3390</b>	<b>133.5</b>
<b>3007</b>	<b>118.4</b>	<b>3007</b>	<b>118.4</b>
<b>2935</b>	<b>115.6</b>	<b>2934</b>	<b>115.5</b>
<b>2960</b>	<b>116.5</b>	<b>2970</b>	<b>116.9</b>
<b>1994</b>	<b>78.5</b>	<b>1992</b>	<b>78.4</b>
<b>1994</b>	<b>78.5</b>	<b>1989</b>	<b>78.3</b>

**2013 JEEP COMPASS**

NHTSA Crash Test - #8036 - Front Impact

Pre/Post Depths - Vehicle Width - Closing Speed - Trapezoidal Average

Test Vehicle Weight = 3798 pounds  
 Vehicle Closing Speed = 35.1 MPH  
 Test Crush Length = 71.3 inches

**Pre/Post Collision Crush Depths (inches)**

	Left Side Crush	Centerline Crush	Right Side Crush	
(Driver Side)	14.2	17.1	14.8	(Pass. Side)

**CRASH 3 Stiffness Coefficients****SMAC Stiffness**

Minimum Crush = 14.2 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Average Crush = 15.8 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Maximum Crush = 17.1 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Rated No Damage Speed = Impact speed with a barrier  
 resulting in no permanent vehicle deformation  
 Normal "Rated No Damage Speed" is 2.5 or 5 mph. Some Specific  
 vehicles may, however, have a higher rating

A	B	G	Kv
			262.1
245.7	226.1	133.5	
453.8	192.8	534.1	
624.2	162.1	1201.6	
756.8	134.1	2136.2	
			211.0
220.5	182.0	133.5	
407.1	155.2	534.1	
560.0	130.5	1201.6	
679.0	107.9	2136.2	
			179.5
203.4	154.9	133.5	
375.5	132.0	534.1	
516.5	111.0	1201.6	
626.4	91.8	2136.2	

A = Maximum force per inch of damage without permanent damage, lb/in

B = Crush resistance per inch of damage width (Crash), lb/in<sup>2</sup>

G = Energy dissipated without permanent damage, lb

Kv = Crush resistance per inch of damage width (SMAC), lb/in<sup>2</sup>

\*\*\*\*\*

**4N6XPRT System's First Approximation Crush Factor (CF)**

Speed from Crush calculation using a generic CF of 21 as suggested in Expert AutoStats

KE Speed (mph) = SQRT(30 \* CF \* max crush in feet)

Crush Factor	Maximum Crush (inches)	Calculated KE Speed (mph)	Calculated Error (mph)	Calculated Error (%)
21	16.3	30.0	5.1	14.6

**4N6XPRT Systems Specific Crush Factor (CF Specific to this test) = 28.8**

CF = (mph \* mph) / (30 \* max crush in feet), dimensionless

**4N6XPRT Systems CF is calculated based upon the data reported and is specific to this vehicle and this test**

**2013 JEEP COMPASS**

NHTSA Crash Test - #8036 - Front Impact

Pre/Post Depths - Indention Length - Closing Speed - Trapezoidal Average

Test Vehicle Weight = 3798 pounds  
 Vehicle Closing Speed = 35.1 MPH  
 Test Crush Length = 43.9 inches

**Pre/Post Collision Crush Depths (inches)**

	Left Side Crush	Centerline Crush	Right Side Crush	
(Driver Side)	14.2	17.1	14.8	(Pass. Side)

**CRASH 3 Stiffness Coefficients****SMAC Stiffness**

Minimum Crush = 14.2 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Average Crush = 15.8 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Maximum Crush = 17.1 inches

Using a Rated No Damage Speed of	2.5mph
Using a Rated No Damage Speed of	5.0mph
Using a Rated No Damage Speed of	7.5mph
Using a Rated No Damage Speed of	10.0mph

Rated No Damage Speed = Impact speed with a barrier  
 resulting in no permanent vehicle deformation  
 Normal "Rated No Damage Speed" is 2.5 or 5 mph. Some Specific  
 vehicles may, however, have a higher rating

A	B	G	Kv
			425.5
398.9	367.1	216.7	
736.6	313.0	866.9	
1013.2	263.1	1950.6	
1228.6	217.6	3467.7	
			342.5
357.9	295.5	216.7	
660.9	251.9	866.9	
909.0	211.8	1950.6	
1102.3	175.2	3467.7	
			291.4
330.1	251.4	216.7	
609.6	214.3	866.9	
838.5	180.2	1950.6	
1016.8	149.1	3467.7	

A = Maximum force per inch of damage without permanent damage, lb/in

B = Crush resistance per inch of damage width (Crash), lb/in^2

G = Energy dissipated without permanent damage, lb

Kv = Crush resistance per inch of damage width (SMAC), lb/in^2

\*\*\*\*\*

**4N6XPRT System's First Approximation Crush Factor (CF)**

Speed from Crush calculation using a generic CF of 21 as suggested in Expert AutoStats

KE Speed (mph) = SQRT(30 \* CF \* max crush in feet)

Crush	Maximum Crush	Calculated KE Speed	Calculated Error	Calculated Error
Factor	(inches)	(mph)	(mph)	(%)
21	16.3	30.0	5.1	14.6

**4N6XPRT Systems Specific Crush Factor (CF Specific to this test) = 28.8**

CF = (mph \* mph) / (30 \* max crush in feet), dimensionless

**4N6XPRT Systems CF is calculated based upon the data reported and is specific to this vehicle and this test**

**Available Test Results**  
**Front Impact Test Summary**

Report Filter Settings

Year Range: 2014 - 2021

Make: JEEP

Model: COMPASS

Test Number	Vehicle Info	No Damage Speed (mph)	Average Crush (inch)	Closing Speed (mph)	-----V e h i c l e----- -----S t i f f n e s s V a l u e s-----				Crush Factor
					A	B	G	Kv	
7189	2011 DODGE CALIBER FIVE DOOR HATCHBACK	5.0	20.0	35.0	305.9	91.9	509.1	125.0	24.5
8030	2013 JEEP PATRIOT UTILITY VEHICLE	5.0	18.7	35.1	352.2	113.6	545.9	154.5	26.4
8036	2013 JEEP COMPASS UTILITY VEHICLE	5.0	15.4	35.1	417.9	163.5	534.1	222.3	32.0
6530	2008 DODGE CALIBER FIVE DOOR HATCHBACK	5.0	11.6	29.8	420.9	180.4	490.9	260.4	30.7
10159	2018 JEEP COMPASS UTILITY VEHICLE	5.0	15.2	34.9	422.8	166.7	536.1	227.2	32.1
5828	2007 JEEP COMPASS UTILITY VEHICLE	5.0	15.9	35.1	422.8	160.2	558.2	217.8	31.0
5661	2007 DODGE CALIBER FIVE DOOR HATCHBACK	5.0	14.3	34.9	428.2	179.7	510.1	244.8	34.2
5967	2007 JEEP PATRIOT UTILITY VEHICLE	5.0	15.0	34.6	443.6	175.0	562.3	239.1	31.9
9107	2014 JEEP PATRIOT OTHER	5.0	8.1	24.7	507.2	248.5	517.7	390.4	30.4
<b>Average (AVG)</b>					<b>413.5</b>	<b>164.4</b>	<b>529.4</b>	<b>231.3</b>	<b>30.4</b>
<b>Minimum (MIN)</b>					<b>305.9</b>	<b>91.9</b>	<b>490.9</b>	<b>125.0</b>	<b>24.5</b>
<b>Maximum (MAX)</b>					<b>507.2</b>	<b>248.5</b>	<b>562.3</b>	<b>390.4</b>	<b>34.2</b>
<b>Standard Deviation (STDev-sample)</b>					<b>56.4</b>	<b>44.1</b>	<b>24.1</b>	<b>74.0</b>	<b>3.0</b>
<b>Number of Tests (n)</b>					<b>9</b>				

**Available Test Results**  
**Front Impact Test Summary**

Report Filter Settings

Year Range: 2014 - 2021

Make: JEEP

Model: COMPASS

Test Number	Vehicle Info	No Damage Speed (mph)	Max Crush (inch)	Closing Speed (mph)	-----V e h i c l e   W i d t h-----  -----S t i f f n e s s   V a l u e s-----				Crush Factor
					A	B	G	Kv	
7189	2011 DODGE CALIBER FIVE DOOR HATCHBACK	5.0	21.5	35.0	284.4	79.4	509.1	108.1	22.8
8030	2013 JEEP PATRIOT UTILITY VEHICLE	5.0	19.7	35.1	334.0	102.2	545.9	139.0	25.1
10159	2018 JEEP COMPASS UTILITY VEHICLE	5.0	18.5	34.9	346.5	112.0	536.1	152.6	26.3
5661	2007 DODGE CALIBER FIVE DOOR HATCHBACK	5.0	17.3	34.9	352.3	121.6	510.1	165.7	28.1
5828	2007 JEEP COMPASS UTILITY VEHICLE	5.0	18.8	35.1	357.9	114.8	558.2	156.1	26.3
6530	2008 DODGE CALIBER FIVE DOOR HATCHBACK	5.0	13.5	29.8	361.0	132.7	490.9	191.6	26.4
5967	2007 JEEP PATRIOT UTILITY VEHICLE	5.0	17.9	34.6	372.4	123.3	562.3	168.5	26.8
8036	2013 JEEP COMPASS UTILITY VEHICLE	5.0	17.1	35.1	375.5	132.0	534.1	179.5	28.8
9107	2014 JEEP PATRIOT OTHER	5.0	10.8	24.7	378.7	138.5	517.7	217.7	22.7
7322	2010 JEEP COMPASS OTHER	5.0	9.9	24.7	422.6	168.8	529.2	265.1	24.8
<b>Average (AVG)</b>					<b>358.6</b>	<b>122.5</b>	<b>529.3</b>	<b>174.4</b>	<b>25.8</b>
<b>Minimum (MIN)</b>					<b>284.4</b>	<b>79.4</b>	<b>490.9</b>	<b>108.1</b>	<b>22.7</b>
<b>Maximum (MAX)</b>					<b>422.6</b>	<b>168.8</b>	<b>562.3</b>	<b>265.1</b>	<b>28.8</b>
<b>Standard Deviation (STDev-sample)</b>					<b>35.4</b>	<b>23.6</b>	<b>22.7</b>	<b>43.5</b>	<b>2.0</b>
<b>Number of Tests (n)</b>					<b>10</b>				

# Expert VIN DeCoder®

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Version Number 4.4.0.1

DeCoded VIN: **JM1BL1VF7B1438949**

Model:	2011 Mazda Mazda3 4 door Sedan		
Engine Size:	2.0 L/ 122 cu.in.		
Engine Description:	Inline 4 cylinder with Dual Overhead Cam		
Horse Power:	148 @ 6500 rpm		
Torque:	135 lb-ft at 4500 rpm		
Injection System:	Multiport Fuel Injection (MFI)		
PSI:	35-50 psi	Ignition:	electronic
Manufacturer:	Mazda		
Assembly Plant:	Yamaguchi, Japan		
Drive Wheels:	This is a Front wheel Drive vehicle w/ Manual Belts w/ Airbags		

The First through Third characters (JM1) indicate a Mazda Car made in Japan

The Fourth through Fifth characters (BL) indicate a Mazda3

The Sixth through Seventh characters (1V) indicate a 4 door Sedan

The Eighth character (F) indicates the OEM engine: 2.0 L/ 122 cu.in., L4, DOHC

The Ninth character (the check digit) is entered as 7.

The VIN appears Valid, the calculated value is 7.

The Tenth character (B) indicates the model year 2011

The Eleventh character (1) indicates the vehicle was made in the assembly plant in Yamaguchi, Japan

The Twelfth through Seventeenth characters (438949) indicate the Serial Number and are unique to this vehicle.



## Expert AutoStats®

Version 6.4.1.1

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PROVIDED BY:

4N6XPRT Systems

8387 University Avenue

La Mesa CA 91941

5/18/2025

2011 MAZDA 3 4 DOOR SEDAN

Curb Weight:		<input type="text" value="2946"/>	lbs.		<input type="text" value="1336"/>	kg.
Curb Weight Distribution -	Front:	<input type="text" value="60"/>	%	Rear:	<input type="text" value="40"/>	%
Gross Vehicle Weight Rating:		<input type="text" value="4081"/>	lbs.		<input type="text" value="1851"/>	kg.
Number of Tires on Vehicle:		<input type="text" value="4"/>				
Drive Wheels:		<input type="text" value="FRONT"/>				

## Horizontal Dimensions

	Inches	Feet	Meters
Total Length	<input type="text" value="181"/>	<input type="text" value="15.08"/>	<input type="text" value="4.60"/>
Wheelbase:	<input type="text" value="104"/>	<input type="text" value="8.67"/>	<input type="text" value="2.64"/>
Front Bumper to Front Axle:	<input type="text" value="36"/>	<input type="text" value="3.00"/>	<input type="text" value="0.91"/>
Front Bumper to Front of Front Well:	<input type="text" value="21"/>	<input type="text" value="1.75"/>	<input type="text" value="0.53"/>
Front Bumper to Front of Hood:	<input type="text" value="7"/>	<input type="text" value="0.58"/>	<input type="text" value="0.18"/>
Front Bumper to Base of windshield:	<input type="text" value="44"/>	<input type="text" value="3.67"/>	<input type="text" value="1.12"/>
Front Bumper to Top of Windshield:	<input type="text" value="77"/>	<input type="text" value="6.42"/>	<input type="text" value="1.96"/>
Rear Bumper to Rear Axle:	<input type="text" value="41"/>	<input type="text" value="3.42"/>	<input type="text" value="1.04"/>
Rear Bumper to Rear of Rear Well:	<input type="text" value="24"/>	<input type="text" value="2.00"/>	<input type="text" value="0.61"/>
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="20"/>	<input type="text" value="1.67"/>	<input type="text" value="0.51"/>

## Width Dimensions

Maximum Width:	<input type="text" value="69"/>	<input type="text" value="5.75"/>	<input type="text" value="1.75"/>
Front Track:	<input type="text" value="60"/>	<input type="text" value="5.00"/>	<input type="text" value="1.52"/>
Rear Track:	<input type="text" value="60"/>	<input type="text" value="5.00"/>	<input type="text" value="1.52"/>

## 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="21"/>	<input type="text" value="1.75"/>	<input type="text" value="0.53"/>
Headlight - center	<input type="text" value="29"/>	<input type="text" value="2.42"/>	<input type="text" value="0.74"/>
Hood - top front:	<input type="text" value="30"/>	<input type="text" value="2.50"/>	<input type="text" value="0.76"/>
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="25"/>	<input type="text" value="2.08"/>	<input type="text" value="0.64"/>
Trunk - top rear:	<input type="text" value="45"/>	<input type="text" value="3.75"/>	<input type="text" value="1.14"/>
Base of Rear Window:	<input type="text" value="45"/>	<input type="text" value="3.75"/>	<input type="text" value="1.14"/>

2011 MAZDA 3 4 DOOR SEDAN

Interior Dimensions	Inches	Feet	Meters
Front Seat Shoulder width	55	4.58	1.40
Front Seat to Headliner	39	3.25	0.99
Front Leg Room - seatback to floor (max)	42	3.50	1.07
Rear Seat Shoulder width	54	4.50	1.37
Rear Seat to Headliner	38	3.17	0.97
Front Leg Room - seatback to floor (min)	36	3.00	0.91
Seatbelts:	3pt - front and rear		
Airbags:	FRONT SEAT AIRBAGS + SIDE AIRBAGS		

Steering Data			
Turning Circle (Diameter)	408	34	10.36
Steering Ratio:	16.20:1		
Wheel Radius:	12	1.00	0.30
Tire Size (OEM):	205/55R16		

## Acceleration &amp; Braking Information

Brake Type:	ALL DISC
ABS System:	ALL WHEEL ABS

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

d = 132.0 ft    t = 3.0 sec    a = -29.3 ft/sec<sup>2</sup>    G-force = -0.91

Acceleration:

0 to 30mph	t = 2.5 sec	a = 17.6 ft/sec <sup>2</sup>	G-force = 0.55
0 to 60mph	t = 7.5 sec	a = 11.7 ft/sec <sup>2</sup>	G-force = 0.36
45 to 65mph	t = 4.1 sec	a = 7.2 ft/sec <sup>2</sup>	G-force = 0.22

Transmission Type: 5spd MANUAL

Notes:

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

N.S.D.C = 2010 - 2011

2011 MAZDA 3 4 DOOR SEDAN

## Other Information

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

1.32

Stable

\*\*\*

## Center of Gravity (No Load):

behind front axle

=

Inches

41.60

Feet

3.47

Meters

1.06

in front of rear axle

=

62.40

5.20

1.58

from side of vehicle

=

34.50

2.88

0.88

from ground

=

22.77

1.90

0.58

from front corner

=

84.92

7.08

2.16

from rear corner

=

109.00

9.08

2.77

from front bumper

=

77.60

6.47

1.97

from rear bumper

=

103.40

8.62

2.63

## Moments of Inertia Approximations (No Load):

Yaw Moment of Inertia

=

lb\*ft\*sec<sup>2</sup>

1828.38

kg\*m\*sec<sup>2</sup>

252.78

Pitch Moment of Inertia

=

1767.54

244.37

Roll Moment of Inertia

=

380.28

52.58

## Front Profile Information

Angle Front Bumper to Hood Front

=

52.1

deg

Angle Front of Hood to Windshield Base

=

13.7

deg

Angle Front of Hood to Windshield Top

=

20.4

deg

Angle of Windshield

=

27.3

deg

Angle of Steering Tires at Max Turn

=

29.2

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

=

27 CF

(Tested for Rear/Side Impact only)

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

The rear Impact data with more than 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).

# Stiffness Values and Test Data

Derived from

NHTSA Crash Test

#7448

2012 MAZDA MAZDA3

Provided By

4N6XPRT StifCalcs®

Registered to:

4N6XPRT SYSTEMS  
8387 UNIVERSITY AVENUE  
LA MESA CA 91941-3842  
24R-030201SC01301

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4N6XPRT Systems | 8387 University Avenue | La Mesa, CA 91942 | USA  
(800) 266-9778 | (619) 464-3478 | FAX: (619) 464-2206 | Email: 4n6@4n6xpert.com

## Similar Vehicle database reader

You entered: **2011 MAZDA 3**

The Similar Vehicle Year/Model list indicates the following are Similar Models

Year Range	Make	Model	Body Styles	Wheelbase
2010 - 2013	MAZDA	3	4D, 5D	103.9
Remarks:				

The Similar Vehicle List contained in 4N6XPRT StifCalcs is an extension of the free Vehicle Interchange List provided by Gregory C. Anderson of Scalia Safety Engineering through the 2012 model year. 4N6XPRT Systems® has taken over the maintenance of the Similar Vehicle List beginning with the 2013 version of the 4N6XPRT StifCalcs program. 4N6XPRT Systems® makes no warranties, either expressed or implied, with respect to this data, its quality, performance, merchantability, or fitness for any particular purpose. The entire risk as to its quality and performance is with the user. In no event will 4N6XPRT Systems® be liable for direct, indirect, incidental, or consequential damages resulting from any data presented here, even if 4N6XPRT Systems® has been advised of the possibility of such damages. The user must agree to assume full responsibility for any decisions which are based, in whole or in part, upon information obtained by using this data. Some of the listed similarities are based on estimates or memory. Most of the data are pulled from specification tables which may contain inaccuracies of their own. Use common sense - if something seems wrong, check it (and if it is wrong, let us know!).

If you have suggestions and/or corrections, we request and urge you to contact us - [4n6@4n6xpert.com](mailto:4n6@4n6xpert.com).

**Test Information**

Test #	7448		NHTSA Test Reference Guide Version #	V5	
Test Date	9/15/2011		Contract #	DTNH22-09-D-00027	
Contract/Study Title	NCAP SIDE IMPACT - 2012 MAZDA 3 I-SPORT 4-DOOR SEDAN				
Test Objective(s)	TO GENERATE SIDE IMPACT PERFORMANCE INFORMATION				
Test Type	OPTIONAL NEW CAR ASSESSMENT TEST		Configuration	IMPACTOR INTO VEHICLE	
Impact Angle	270	Side Impact Point	-76	mm	-3.0 inches
		Offset Distance	0	mm	0.0 inches
		Closing Speed	61.5	Km/Hr	38.18 MPH
Test Performer	KARCO ENGINEERING				
Test Reference #	ZC5400				
Test Track Surface	CONCRETE		Condition	DRY	
Ambient Temperature	34	C	93.2	F	Total Number of Curves 62
Data Recorder Type	DIGITAL DATA ACQUISITION		Data Link	OTH	
Test Commentary	NO COMMENTS				

**Fixed Barrier Information**

Barrier Type		Pole Barrier Diameter		mm		inches
Barrier Shape						
Barrier Commentary						

**2012 MAZDA MAZDA3 LEFT FRONT SEAT**

Test #	<b>7448</b>	Sex	<b>MALE</b>	
Vehicle #	<b>2</b>	Age	<b>0</b>	
Location	<b>LEFT FRONT SEAT</b>	Height	<b>0.0</b> mm	<b>0.0</b> inches
Position	<b>CENTER POSITION</b>	Weight	<b>0.0</b> kg	<b>0.0</b> pounds
Type	<b>EUROSID 2 (ES-2RE) SIDE IMPACT DUMMY</b>			
Size	<b>50 PERCENTILE</b>			
Calibration Method	<b>SIDE IMPACT DUMMY</b>			
Occupant Manufacturer	<b>FTSS, S/N F035</b>			
Occupant Modification	<b>NO COMMENTS</b>			
Occupant Description	<b>ES2RE</b>			
Occupant Commentary	<b>NO COMMENTS</b>			

**Head**

Head to -				
Windshield Header	<b>369.0</b> mm	<b>14.5</b> inches	Head Injury Criteria (HIC)	<b>194.0</b>
WindShield	<b>615.0</b> mm	<b>24.2</b> inches	HIC Lower Time Interval (ms)	<b>29.9</b>
Seatback	<b>0.0</b> mm	<b>0.0</b> inches	HIC Upper Time Interval (ms)	<b>61.9</b>
Side Header	<b>202.0</b> mm	<b>8.0</b> inches		
Side Window	<b>340.0</b> mm	<b>13.4</b> inches		
Neck to Seatback	<b>0.0</b> mm	<b>0.0</b> inches		
First Contact Region (Head)	<b>AIR BAG</b>			
Second Contact Region (Head)	<b>HEADER - SIDE</b>			

**Chest**

Chest to -				
Dash	<b>615.0</b> mm	<b>24.2</b> inches	Arm to Door	<b>96.0</b> mm <b>3.8</b> inches
Steering Wheel	<b>327.0</b> mm	<b>12.9</b> inches	Hip to Door	<b>150.0</b> mm <b>5.9</b> inches
Seatback	<b>0.0</b> mm	<b>0.0</b> inches		
Chest Severity Index	<b>0.0</b>		Pelvic Peak Lateral Acceleration (g's)	<b>0.0</b>
Thoracic Trauma Index	<b>0.0</b>		Thorax Peak Acceleration (g's)	<b>0.0</b>
Lap Belt Peak Load	<b>0.0</b> Newtons	<b>0.0</b> pound Force		
Shoulder Belt Peak Load	<b>0.0</b> Newtons	<b>0.0</b> pound Force		
First Contact Region (Chest/Abdomen)	<b>AIR BAG</b>			
Second Contact Region (Chest/Abdomen)	<b>NONE</b>			

**Legs**

Knees to Dash	<b>115.0</b> mm	<b>4.5</b> inches	Knees to Seatback	<b>0.0</b> mm <b>0.0</b> inches
Left Femur Peak Load	<b>0.0</b> Newtons	<b>0.0</b> pounds Force		
Right Femur Peak Load	<b>0.0</b> Newtons	<b>0.0</b> pounds Force		
First Contact Region (Legs)	<b>DOOR</b>			
Second Contact Region (Legs)				

**2012 MAZDA MAZDA3 LEFT FRONT SEAT**

Test #	<b>7448</b>	Sex	<b>MALE</b>
Vehicle #	<b>2</b>	Age	<b>0</b>
Location	<b>LEFT FRONT SEAT</b>	Height	<b>0.0</b> mm <b>0.0</b> inches
Position	<b>CENTER POSITION</b>	Weight	<b>0.0</b> kg <b>0.0</b> pounds
Type	<b>EUROSID 2 (ES-2RE) SIDE IMPACT DUMMY</b>		
Size	<b>50 PERCENTILE</b>		

Calibration Method	<b>SIDE IMPACT DUMMY</b>
Occupant Manufacturer	<b>FTSS, S/N F035</b>
Occupant Modification	<b>NO COMMENTS</b>
Occupant Description	<b>ES2RE</b>
Occupant Commentary	<b>NO COMMENTS</b>

**Restraints**

Restraint # 1	<b>3 POINT BELT</b>
Mounted	<b>BELT - CONVENTIONAL MOUNT</b>
Deployment	<b>DEPLOYED PROPERLY</b>
Restraint Commentary	<b>SHOULDER BELT PRETENSIONER AND FORCE LIMITER</b>
Restraint #2	<b>CURTAIN AIRBAG</b>
Mounted	<b>HEADER - SIDE</b>
Deployment	<b>DEPLOYED PROPERLY</b>
Restraint Commentary	<b>SIDE CURTAIN AIRBAG</b>
Restraint #3	<b>TORSO/PELVIS AIRBAG</b>
Mounted	<b>SEAT BACK</b>
Deployment	<b>DEPLOYED PROPERLY</b>
Restraint Commentary	<b>SIDE TORSO/ABDOMEN/PELVIS AIRBAG</b>



**2012 MAZDA MAZDA3 LEFT REAR SEAT**

Test #	<b>7448</b>	Sex	<b>FEMALE</b>	
Vehicle #	<b>2</b>	Age	<b>0</b>	
Location	<b>LEFT REAR SEAT</b>	Height	<b>0.0</b> mm	<b>0.0</b> inches
Position	<b>NONADJUSTABLE SEAT</b>	Weight	<b>0.0</b> kg	<b>0.0</b> pounds
Type	<b>SID-IIS SIDE IMPACT DUMMY</b>			
Size	<b>5 PERCENTILE</b>			
Calibration Method	<b>SIDE IMPACT DUMMY</b>			
Occupant Manufacturer	<b>FTSS, S/N: 307</b>			
Occupant Modification	<b>NO COMMENTS</b>			
Occupant Description	<b>SID IIS-D</b>			
Occupant Commentary	<b>CNTRC1:TORSO CONTACTED THE DOOR PANEL</b>			

**Head**

Head to -				
Windshield Header	<b>0.0</b> mm	<b>0.0</b> inches	Head Injury Criteria (HIC)	<b>452.0</b>
WindShield	<b>0.0</b> mm	<b>0.0</b> inches	HIC Lower Time Interval (ms)	<b>42.4</b>
Seatback	<b>464.0</b> mm	<b>18.3</b> inches	HIC Upper Time Interval (ms)	<b>68.7</b>
Side Header	<b>242.0</b> mm	<b>9.5</b> inches		
Side Window	<b>341.0</b> mm	<b>13.4</b> inches		
Neck to Seatback	<b>0.0</b> mm	<b>0.0</b> inches		
First Contact Region (Head)	<b>AIR BAG</b>			
Second Contact Region (Head)	<b>NONE</b>			

**Chest**

Chest to -				
Dash	<b>0.0</b> mm	<b>0.0</b> inches	Arm to Door	<b>151.0</b> mm <b>5.9</b> inches
Steering Wheel	<b>0.0</b> mm	<b>0.0</b> inches	Hip to Door	<b>175.0</b> mm <b>6.9</b> inches
Seatback	<b>463.0</b> mm	<b>18.2</b> inches		
Chest Severity Index	<b>0.0</b>		Pelvic Peak Lateral Acceleration (g's)	<b>0.0</b>
Thoracic Trauma Index	<b>0.0</b>		Thorax Peak Acceleration (g's)	<b>0.0</b>
Lap Belt Peak Load	<b>0.0</b> Newtons	<b>0.0</b> pound Force		
Shoulder Belt Peak Load	<b>0.0</b> Newtons	<b>0.0</b> pound Force		
First Contact Region (Chest/Abdomen)	<b>OTHER</b>			
Second Contact Region (Chest/Abdomen)	<b>NONE</b>			

**Legs**

Knees to Dash	<b>0.0</b> mm	<b>0.0</b> inches	Knees to Seatback	<b>219.0</b> mm <b>8.6</b> inches
Left Femur Peak Load	<b>0.0</b> Newtons	<b>0.0</b> pounds Force		
Right Femur Peak Load	<b>0.0</b> Newtons	<b>0.0</b> pounds Force		
First Contact Region (Legs)	<b>DOOR</b>			
Second Contact Region (Legs)				

**2012 MAZDA MAZDA3 LEFT REAR SEAT**

Test #	<b>7448</b>	Sex	<b>FEMALE</b>
Vehicle #	<b>2</b>	Age	<b>0</b>
Location	<b>LEFT REAR SEAT</b>	Height	<b>0.0</b> mm <b>0.0</b> inches
Position	<b>NONADJUSTABLE SEAT</b>	Weight	<b>0.0</b> kg <b>0.0</b> pounds
Type	<b>SID-IIS SIDE IMPACT DUMMY</b>		
Size	<b>5 PERCENTILE</b>		

Calibration Method	<b>SIDE IMPACT DUMMY</b>
Occupant Manufacturer	<b>FTSS, S/N: 307</b>
Occupant Modification	<b>NO COMMENTS</b>
Occupant Description	<b>SID IIS-D</b>
Occupant Commentary	<b>CNTRC1:TORSO CONTACTED THE DOOR PANEL</b>

**Restraints**

Restraint # 1	<b>3 POINT BELT</b>
Mounted	<b>BELT - CONVENTIONAL MOUNT</b>
Deployment	<b>NOT APPLICABLE</b>
Restraint Commentary	<b>NO COMMENTS</b>
Restraint #2	<b>CURTAIN AIRBAG</b>
Mounted	<b>HEADER - SIDE</b>
Deployment	<b>DEPLOYED PROPERLY</b>
Restraint Commentary	<b>SIDE CURTAIN AIRBAG</b>
Restraint #3	<b>TORSO/PELVIS AIRBAG</b>
Mounted	<b>SEAT BACK</b>
Deployment	<b>DEPLOYED PROPERLY</b>
Restraint Commentary	<b>SIDE TORSO/ABDOMEN/PELVIS AIRBAG</b>

**Vehicle 1 0 NHTSA DEFORMABLE IMPACTOR**

Test #	<b>7448</b>		
VIN		NHTSA Test Vehicle Number	<b>1</b>
Year	<b>0</b>	Vehicle Modification Indicator	<b>RESEARCH VEHICLE</b>
Make	<b>NHTSA</b>	Post-test Steering Column Shear Capsule Separation	<b>NOT APPLICABLE</b>
Model	<b>DEFORMABLE IMPACTOR</b>	Steering Column Collapse Mechanism	<b>NOT APPLICABLE</b>
Body	<b>NOT APPLICABLE</b>		
Engine	<b>NOT APPLICABLE</b>		
Displacement	<b>0</b>	Liter	Transmission <b>NOT APPLICABLE</b>
Vehicle Modification(s)	Description <b>NO COMMENTS</b>		
Vehicle Commentary	<b>NHTSA SIDE IMPACT MOVING DEFORMABLE BARRIER</b>		
Vehicle Length	<b>4023</b> mm	<b>158.4</b> inches	CG behind Front Axle <b>1118</b> mm <b>44.0</b> inches
Vehicle Width	<b>1251</b> mm	<b>49.3</b> inches	Center of Damage to CG Axis <b>0</b> mm <b>0.0</b> inches
Vehicle Wheelbase	<b>2595</b> mm	<b>102.2</b> inches	Total Length of Indentation <b>0</b> mm <b>0.0</b> inches
Vehicle Test Weight	<b>1368</b> KG	<b>3015</b> pounds	Maximum Static Crush Depth <b>0</b> mm <b>0.0</b> inches
			Pre-Impact Speed <b>61</b> kph <b>38.2</b> mph
Vehicle Damage Index			Principal Direction of Force <b>0</b>

Damage Profile Distance Measurements

(Measured Left-to-Right, Rear-to-Front)

DPD 1	<b>0</b> mm	<b>0.0</b> inches
DPD 2	<b>0</b> mm	<b>0.0</b> inches
DPD 3	<b>0</b> mm	<b>0.0</b> inches
DPD 4	<b>0</b> mm	<b>0.0</b> inches
DPD 5	<b>0</b> mm	<b>0.0</b> inches
DPD 6	<b>0</b> mm	<b>0.0</b> inches

Crush from Pre & Post Test Damage Measurements

	Pre-Test	Post-Test	Crush Depth
Left Bumper Corner	<b>0.0</b> inches	<b>0.0</b> inches	<b>0.0</b> inches
	<b>0</b> mm	<b>0</b> mm	<b>0</b> mm
Centerline	<b>0.0</b> inches	<b>0.0</b> inches	<b>0.0</b> inches
	<b>0</b> mm	<b>0</b> mm	<b>0</b> mm
Right Bumper Corner	<b>0.0</b> inches	<b>0.0</b> inches	<b>0.0</b> inches
	<b>0</b> mm	<b>0</b> mm	<b>0</b> mm

Bumper Engagement  
(Inline Impact Only)

**0.0**

Sill Engagement  
(Side Impact Only)

**NOT APPLICABLE**

A-pillar Engagement  
(Side Impact Only)

**0.0**

Moving Test Cart  
Angle

**DIRECT ENGAGEMENT**

*Magnitude of the Tilt Angle  
Measured between surface of a  
Rollover Test Cart and the Ground*

Moving Test Cart/Vehicle  
Crabbed Angle

**27.0**

*Magnitude of the Crabbed Angle  
Measure Clockwise from  
Longitudinal Vector to Velocity Vector of Vehicle*

Vehicle Orientation on Cart  
Moving Test Cart

**0**

*Magnitude of the Angle  
Measured between the Vehicle Orientation  
and Direction of Test Cart Motion*

**Vehicle 1 0 NHTSA DEFORMABLE IMPACTOR**

Test #	<b>7448</b>		
VIN			
Year	<b>0</b>		
Make	<b>NHTSA</b>	NHTSA Test Vehicle Number	<b>1</b>
Model	<b>DEFORMABLE IMPACTOR</b>	Vehicle Modification Indicator	<b>RESEARCH VEHICLE</b>
Body	<b>NOT APPLICABLE</b>	Post-test Steering Column Shear Capsule Separation	<b>NOT APPLICABLE</b>
Engine	<b>NOT APPLICABLE</b>	Steering Column Collapse Mechanism	<b>NOT APPLICABLE</b>
Displacement	<b>0</b>	Liter	Transmission
		<b>NOT APPLICABLE</b>	
Vehicle Modification(s)	Description <b>NO COMMENTS</b>		
Vehicle Commentary	<b>NHTSA SIDE IMPACT MOVING DEFORMABLE BARRIER</b>		
Vehicle Length	<b>4023</b> mm	<b>158.4</b> inches	CG behind Front Axle
			<b>1118</b> mm <b>44.0</b> inches
Vehicle Width	<b>1251</b> mm	<b>49.3</b> inches	Center of Damage to CG Axis
			<b>0</b> mm <b>0.0</b> inches
Vehicle Wheelbase	<b>2595</b> mm	<b>102.2</b> inches	Total Length of Indentation
			<b>0</b> mm <b>0.0</b> inches
Vehicle Test Weight	<b>1368</b> KG	<b>3015</b> pounds	Maximum Static Crush Depth
			<b>0</b> mm <b>0.0</b> inches
			Pre-Impact Speed
			<b>61</b> kph <b>38.2</b> mph
Vehicle Damage Index			Principal Direction of Force
			<b>0</b>

**Pre & Post Test Damage Measurements**

(Measurements are taken in a longitudinal direction. Except for Engine Block, all measurements are take from the Rear Vehicle Surface forward.)

**Left Side****Centerline****Right Side**

Pre-Test		Post-Test		Pre-Test		Post-Test		Pre-Test		Post-Test	
mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches
Length of Vehicle at Centerline											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Engine Block											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Front Bumper Corner											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Front of Engine											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Firewall											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Steering Column											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Center of Seering Column to 'A' Post (Horizontal)											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Center of Steering Column to Headliner (Vertical)											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>

## Vehicle 2 2012 MAZDA MAZDA3

Test #	<b>7448</b>		
VIN	<b>JM1BL1UG1C1507209</b>	NHTSA Test Vehicle Number	<b>2</b>
Year	<b>2012</b>	Vehicle Modification Indicator	<b>PRODUCTION VEHICLE</b>
Make	<b>MAZDA</b>	Post-test Steering Column Shear Capsule Separation	<b>UNKNOWN</b>
Model	<b>MAZDA3</b>	Steering Column Collapse Mechanism	<b>UNKNOWN</b>
Body	<b>FOUR DOOR SEDAN</b>		
Engine	<b>ROTARY</b>		
Displacement	<b>2</b> Liter	Transmission	<b>AUTOMATIC - FRONT WHEEL DRIVE</b>
Vehicle Modification(s) Description	<b>NO COMMENTS</b>		
Vehicle Commentary	<b>NO COMMENTS</b>		
Vehicle Length	<b>4273</b> mm	<b>168.2</b> inches	CG behind Front Axle <b>1145</b> mm <b>45.1</b> inches
Vehicle Width	<b>1753</b> mm	<b>69.0</b> inches	Center of Damage to CG Axis <b>-288</b> mm <b>-11.3</b> inches
Vehicle Wheelbase	<b>2644</b> mm	<b>104.1</b> inches	Total Length of Indentation <b>3000</b> mm <b>118.1</b> inches
Vehicle Test Weight	<b>1493</b> KG	<b>3291</b> pounds	Maximum Static Crush Depth <b>264</b> mm <b>10.4</b> inches
			Pre-Impact Speed <b>0</b> kph <b>0.0</b> mph
Vehicle Damage Index	<b>10LPAW3</b>		Principal Direction of Force <b>297</b>

Damage Profile Distance Measurements

(Measured Left-to-Right, Rear-to-Front)

DPD 1	<b>10</b> mm	<b>0.4</b> inches
DPD 2	<b>162</b> mm	<b>6.4</b> inches
DPD 3	<b>254</b> mm	<b>10.0</b> inches
DPD 4	<b>254</b> mm	<b>10.0</b> inches
DPD 5	<b>158</b> mm	<b>6.2</b> inches
DPD 6	<b>4</b> mm	<b>0.2</b> inches

Crush from Pre & Post Test Damage Measurements

	Pre-Test	Post-Test	Crush Depth
Left Bumper Corner	<b>0.0</b> inches	<b>0.0</b> inches	<b>0.0</b> inches
	<b>0</b> mm	<b>0</b> mm	<b>0</b> mm
Centerline	<b>0.0</b> inches	<b>0.0</b> inches	<b>0.0</b> inches
	<b>0</b> mm	<b>0</b> mm	<b>0</b> mm
Right Bumper Corner	<b>0.0</b> inches	<b>0.0</b> inches	<b>0.0</b> inches
	<b>0</b> mm	<b>0</b> mm	<b>0</b> mm

Bumper Engagement  
(Inline Impact Only)

**27.0**

Sill Engagement  
(Side Impact Only)

**DIRECT ENGAGEMENT**

A-pillar Engagement  
(Side Impact Only)

**90.0**

Moving Test Cart  
Angle

**NOT APPLICABLE**

*Magnitude of the Tilt Angle  
Measured between surface of a  
Rollover Test Cart and the Ground*

Moving Test Cart/Vehicle  
Crabbed Angle

**0.0**

*Magnitude of the Crabbed Angle  
Measure Clockwise from  
Longitudinal Vector to Velocity Vector of Vehicle*

Vehicle Orientation on Cart  
Moving Test Cart

**0**

*Magnitude of the Angle  
Measured between the Vehicle Orientation  
and Direction of Test Cart Motion*

## Vehicle 2 2012 MAZDA MAZDA3

Test #	<b>7448</b>		
VIN	<b>JM1BL1UG1C1507209</b>	NHTSA Test Vehicle Number	<b>2</b>
Year	<b>2012</b>	Vehicle Modification Indicator	<b>PRODUCTION VEHICLE</b>
Make	<b>MAZDA</b>	Post-test Steering Column Shear Capsule Separation	<b>UNKNOWN</b>
Model	<b>MAZDA3</b>	Steering Column Collapse Mechanism	<b>UNKNOWN</b>
Body	<b>FOUR DOOR SEDAN</b>		
Engine	<b>ROTARY</b>		
Displacement	<b>2</b> Liter	Transmission	<b>AUTOMATIC - FRONT WHEEL DRIVE</b>
Vehicle Modification(s) Description	<b>NO COMMENTS</b>		
Vehicle Commentary	<b>NO COMMENTS</b>		
Vehicle Length	<b>4273</b> mm	<b>168.2</b> inches	CG behind Front Axle <b>1145</b> mm <b>45.1</b> inches
Vehicle Width	<b>1753</b> mm	<b>69.0</b> inches	Center of Damage to CG Axis <b>-288</b> mm <b>-11.3</b> inches
Vehicle Wheelbase	<b>2644</b> mm	<b>104.1</b> inches	Total Length of Indentation <b>3000</b> mm <b>118.1</b> inches
Vehicle Test Weight	<b>1493</b> KG	<b>3291</b> pounds	Maximum Static Crush Depth <b>264</b> mm <b>10.4</b> inches
			Pre-Impact Speed <b>0</b> kph <b>0.0</b> mph
Vehicle Damage Index	<b>10LPAW3</b>		Principal Direction of Force <b>297</b>

## Pre &amp; Post Test Damage Measurements

(Measurements are taken in a longitudinal direction. Except for Engine Block, all measurements are take from the Rear Vehicle Surface forward.)

## Left Side

## Centerline

## Right Side

Pre-Test		Post-Test		Pre-Test		Post-Test		Pre-Test		Post-Test	
mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches
Length of Vehicle at Centerline											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Engine Block											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Front Bumper Corner											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Front of Engine											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Firewall											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Steering Column											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Center of Seering Column to 'A' Post (Horizontal)											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
Center of Steering Column to Headliner (Vertical)											
<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>

**2012 MAZDA MAZDA3**

NHTSA Crash Test - #7448 - Side Impact

Damage Profile Distances - Indention Length - KE Equivalent Speed - Trapezoidal Average

Test Vehicle Weight = 3291 pounds                      Impactor Weight = 3015  
 KE Equivalent Speed = 26.4 MPH                      Impactor Test Speed = 38.2  
 Test Crush Length = 118.1 inches

**Damage Profile Distance Collision Crush Depths (inches)**

	DPD1	DPD2	DPD3	DPD4	DPD5	DPD6	
(Rear)	0.4	6.4	10.0	10.0	6.2	0.2	(Front)

**CRASH 3 Stiffness Coefficients****SMAC Stiffness**

Minimum Crush = 0.2 inches

Using a Rated No Damage Speed of 1.0mph  
 Using a Rated No Damage Speed of 2.0mph  
 Using a Rated No Damage Speed of 3.0mph  
 Using a Rated No Damage Speed of 5.0mph

Average Crush = 6.6 inches

Using a Rated No Damage Speed of 1.0mph  
 Using a Rated No Damage Speed of 2.0mph  
 Using a Rated No Damage Speed of 3.0mph  
 Using a Rated No Damage Speed of 5.0mph

Maximum Crush = 10.0 inches

Using a Rated No Damage Speed of 1.0mph  
 Using a Rated No Damage Speed of 2.0mph  
 Using a Rated No Damage Speed of 3.0mph  
 Using a Rated No Damage Speed of 5.0mph

Rated No Damage Speed = Impact speed with a barrier  
 resulting in no permanent vehicle deformation  
 Normal "Rated No Damage Speed" is 2.5 or 5 mph. Some Specific  
 vehicles may, however, have a higher rating

<u>A</u>	<u>B</u>	<u>G</u>	<u>Kv</u>
			627862.6
3603.0	581203.6	11.2	
6922.4	536345.9	44.7	
9958.1	493289.5	100.5	
15178.4	412580.6	279.2	
			360.2
86.3	333.4	11.2	
165.8	307.7	44.7	
238.5	283.0	100.5	
363.6	236.7	279.2	
			155.7
56.7	144.1	11.2	
109.0	133.0	44.7	
156.8	122.3	100.5	
239.0	102.3	279.2	

A = Maximum force per inch of damage without permanent damage, lb/in

B = Crush resistance per inch of damage width (Crash), lb/in^2

G = Energy dissipated without permanent damage, lb

Kv = Crush resistance per inch of damage width (SMAC), lb/in^2

\*\*\*\*\*

**4N6XPRT System's First Approximation Crush Factor (CF)**

Speed from Crush calculation using a generic CF of 21 as suggested in Expert AutoStats

KE Speed (mph) = SQRT(30 \* CF \* max crush in feet)

Crush Factor	Maximum Crush (inches)	Calculated KE Speed (mph)	Calculated Error (mph)	Calculated Error (%)
21	10.0	22.9	3.5	13.2

**4N6XPRT Systems Specific Crush Factor (CF Specific to this test) = 27.9**

CF = (mph \* mph) / (30 \* max crush in feet), dimensionless

**4N6XPRT Systems CF is calculated based upon the data reported and is specific to this vehicle and this test**

# Available Test Results

## Side Impact Test Summary

Report Filter Settings

Year Range: 2010 - 2013

Make: MAZDA

Model: 3

Test Number	Vehicle Info	No			-----I n d e n t i o n L e n g t h-----				Crush Factor
		Damage Speed (mph)	Average Crush (inch)	KEES (mph)	-----S t i f f n e s s V a l u e s-----				
					A	B	G	Kv	
7107	2011 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	19.8	20.2	40.7	18.7	44.4	23.0	8.2
6657	2010 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	8.1	19.7	120.5	131.8	55.1	163.3	19.2
7448	2012 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	6.6	26.4	165.8	307.7	44.7	360.2	42.4
7106	2011 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	7.8	26.6	187.6	297.0	59.3	347.2	36.4
6721	2010 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	7.3	26.7	201.3	339.4	59.7	396.5	39.0
6651	2010 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	3.7	26.9	307.8	1024.6	46.2	1195.8	77.4
Average (AVG)					170.6	353.2	51.6	414.3	37.1
Minimum (MIN)					40.7	18.7	44.4	23.0	8.2
Maximum (MAX)					307.8	1024.6	59.7	1195.8...	77.4
Standard Deviation (STDev-sample)					88.8	351.3	7.3	408.6	23.7
Number of Tests (n)					6				



**Available Test Results**  
**Side Impact Test Summary**

Report Filter Settings

Year Range: 2010 - 2013

Make: MAZDA

Model: 3

Test Number	Vehicle Info	No Damage Speed (mph)	Max Crush (inch)	KEES (mph)	-----I n d e n t i o n   L e n g t h-----   -----S t i f f n e s s   V a l u e s-----				Crush Factor
					A	B	G	Kv	
7107	2011 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	19.8	20.2	40.7	18.7	44.4	23.0	8.2
6657	2010 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	18.2	19.7	53.5	25.9	55.1	32.1	8.5
7448	2012 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	10.4	26.4	104.9	123.1	44.7	144.1	26.8
6651	2010 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	9.8	26.9	117.0	147.9	46.2	172.7	29.4
7106	2011 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	10.0	26.6	145.9	179.6	59.3	209.9	28.3
6721	2010 MAZDA MAZDA3 FOUR DOOR SEDAN	2.0	9.4	26.7	156.9	206.2	59.7	240.9	30.4
<b>Average (AVG)</b>					<b>103.2</b>	<b>116.9</b>	<b>51.6</b>	<b>137.1</b>	<b>21.9</b>
<b>Minimum (MIN)</b>					<b>40.7</b>	<b>18.7</b>	<b>44.4</b>	<b>23.0</b>	<b>8.2</b>
<b>Maximum (MAX)</b>					<b>156.9</b>	<b>206.2</b>	<b>59.7</b>	<b>240.9</b>	<b>30.4</b>
<b>Standard Deviation (STDev-sample)</b>					<b>47.5</b>	<b>78.5</b>	<b>7.3</b>	<b>91.0</b>	<b>10.6</b>
<b>Number of Tests (n)</b>					<b>6</b>				

## **4N6XPRT Systems**

Expert System Software for Litigation

8387 University Avenue  
La Mesa, CA 91942

Phone: (619) 464-3478  
Fax: (619) 464-2206  
Toll Free: 1- 800-266-9778

Web Site: <http://www.4n6xpert.com>

E-Mail: [4n6@4n6xpert.com](mailto:4n6@4n6xpert.com)

Dear Conference Attendee,


We at 4N6XPRT Systems were pleased to be able to provide you with the preceding data for the crash test vehicles.

Information regarding the Services available to you through our company, as well as the Programs used to create the data report follows this page.

We look forward to providing you similar information in the near future.

Sincerely,

Daniel W. Vomhof III  
Daniel W. Vomhof, Ph.D.



## Expert AutoStats®

Expert AutoStats® is a program that has over 50,000 cars, pick-ups, vans, and utility vehicles that range in years from the 1940's to the present. Expert AutoStats® has specifications that can assist in reconstructing accidents when the data for the vehicle is unavailable or the vehicle is too severely damaged to get correct measurements.


For many vehicles mid-1960's to present, data such as bumper height, front and rear overhang, hood height, etc., are also included.

Model	Data Page 1	Data Page 2	Data Page 3	Printer	File Output	DXF Output
-------	-------------	-------------	-------------	---------	-------------	------------

2011 FORD POLICE INTERCEPTOR (3.27) MSP POLICE PKG 4 DOOR SEDAN

Horizontal Dimensions		Vertical Dimensions	
Length	212 in.	Height	58 in.
Wheelbase	115 in.	Ground to:	
Front Bumper to Front Axle	43 in.	Front Bumper (Top)	23 in.
Front Bumper to Front of Hood	8 in.	Headlight - Center	27 in.
Front Bumper to Base of Windshield	65 in.	Hood - Top Front	31 in.
Front Bumper to Top of Windshield	91 in.	Base of Windshield	39 in.
Front Bumper to Front Wheel Well	26 in.	Rear Bumper (Top)	25 in.
Rear Bumper to Rear of Trunk	8 in.	Trunk - Top Rear	39 in.
Rear Bumper to Base of Rear Window	38 in.	Base of Rear Window	40 in.
Rear Bumper to Rear Well	38 in.		
Rear Bumper to Rear Axle	54 in.		
Depth Dimensions		Weight Dimensions	
Width	78 in.	Curb Weight	4184 lbs.
Front Track	63 in.	Curb Weight Distribution:	
Rear Track	66 in.	Front =	56 %
		Rear =	44 %
		Gross Vehicle Weight Rating	5500 lbs.

## 4N6XPRT BioMeknx®



Collecting the Biomechanical data of importance to the Accident Investigator into one easily accessible reference location

Biomechanics is the application of physics to describe, evaluate, or model living tissue and biological materials. Originally it was the application of the part of physics known as Mechanics to living systems. This is the same portion of physics which is used as the basis for much of accident reconstruction.

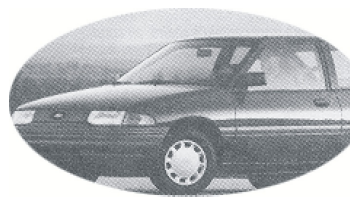
Biomechanics is important in many aspects of forensic work from vehicle accident reconstruction to slip-trip-stumble-fall cases. This particular program contains modules containing information on a variety of biomechanics and injury modalities, physical data found in the literature for failure of bone and tissue, calculation modules to evaluate individual specific parameters, and definitions and terminology used in the literature and found in medical reports.

4N6XPRT BioMeknx® is a program designed for the accident investigator. The BioMeknx program incorporates information from a number of different sources, as well as over 30 years of reconstruction experience. 4N6XPRT BioMeknx™ compiles into one source a number of items of information to assist in reconstructing accidents by tying in the human component more tightly without the need to be a BioMechanics expert. Identification of body location, body part illustrations, failure threshold limits, definitions of terms, calculation modules for body link lengths, weights, stride lengths, and formulas for other types of calculations are only some of the material included in the program.

To gather into your library the material included in the 4N6XPRT BioMeknx™, you would need a minimum of 10-15 Anatomy and Physiology, Human Factors, and Biomechanics books, as well as conduct over 50 hours of internet research.

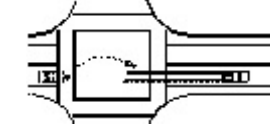
## 3FAPP1280MR117253

## Expert VIN DeCoder®




Expert VIN DeCoder® is a program that “DeCodes” the 17 character VIN number for Cars, Vans, Pickups, and Utility vehicles manufactured from 1981 to the present.

<u>Cars/Vans/Utility/Lt. Trucks</u>	<u>Modules: 1981 to Present</u>
Ford	Chevrolet/Geo
Mercury/Lincoln	Pontiac / Buick / Oldsmobile
Chrysler/AMC/Jeep	Cadillac/Saturn
European Import	Asian Import



## 4N6XPRT Ped & Bike Calcs®

The 4N6XPRT Ped & Bike Calcs®) program is a program that provides FIRST ESTIMATE calculations to evaluate the speed of a vehicle involved in striking a pedestrian or bicyclist, IF Vehicle, scene, and pedestrian {or pedestrian and bicycle in a vehicle-bike accident} measurements are available. This program may also be used when skateboards or roller skates are involved.




## Expert Qwic Calcs®

Expert Qwic Calcs® quickly provides answers to questions important in vehicle collision litigation. The user inputs data in response to relevant questions, Expert Qwic Calcs® performs the mathematical calculations required. Both the input data and the calculated result are then displayed, and may be “dumped” to a printer.

>>>Calculate Time given D & V<<<  
Enter Distance (in feet) : 45  
Enter Velocity (in mph) : 6

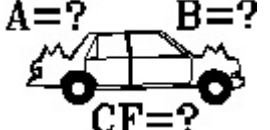
When the law enforcement accident report gives insufficient information to do a full - blown accident reconstruction, Expert Qwic Calcs® may be used to “scope out”the parameters of speeds, times, and distances to determine these relationships in a vehicle accident.



## Expert TireStuf®

The Expert TireStuf® program is a Menu Driven program which has 19 modules explaining the various tire size designation systems, the information which MAY be in the DOT tire number, the DOT mandated Tire Grading system, Lug Nut Tightening and Tire Rotation schemes, Mix and Match precautions, a glossary of Tire Terms, and Addresses of a few of the sources of additional information on tires and rims.

Also included is a calculation of the number of revolutions in one mile given the tire dimensions.



## 4N6XPRT StifCalcs®

4N6XPRT StifCalcs®. Is a program which puts the NHTSA Crash Test database at your fingertips with no need to access the internet in order to obtain Stiffness Values!

In addition to the NHTSA Crash Test data, the program includes a “Similar Vehicle List Reader” which allows quick retrieval of the data for the desired and “similar” vehicle(s). This will drive the initial selection of the available tests. Alternatively, we have an ADVANCED SEARCH module which allows the creation of “Class” vehicles.

**WITHOUT THE INTERNET** the user can:

- ★ Lookup individual tests and get basic front, side, and rear **STIFFNESS VALUES** from these tests. The values are based on the reported crush depths and lengths within each test.
- ★ Obtain Similar Vehicle group summary **STIFFNESS** data with Statistical measures.
- ★ Create “CLASS” vehicles and get summary **STIFFNESS** data with Statistical measures.

**FRONTAL STATISTICAL MEASURES EXAMPLE:**

	Vehicle Width			
	Stiffness Values			
	A	B	G	Kv
Average (AVG)	305.7	93.5	523.6	143.1
Minimum (MIN)	115.0	13.2	465.2	23.5
Maximum (MAX)	461.6	200.0	614.1	387.3
Standard Deviation (STDev-sample)	73.4	38.4	36.2	72.8
Number of Tests (n)	53			


**WITH THE INTERNET** the user can:

- ★ **RESEARCH** and **download** the **PICTURES, VIDEOS**, and and **REPORTS** available for individual tests.

Please use this order form when ordering. Due to conditions and rising costs beyond our control, Shipping & Handling for program orders must be paid per the included schedule.

Contact Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Company/Organization: \_\_\_\_\_  
Street: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Phone: (\_\_\_\_) \_\_\_\_\_ FAX: (\_\_\_\_) \_\_\_\_\_  
E-Mail: \_\_\_\_\_

PAYMENT BY: Check\_\_\_\_ Money Order\_\_\_\_ Govt. Purchase Order\_\_\_\_  
for Credit Card Orders, **please circle Credit Card type: Am. Express / Visa / MasterCard**, then complete the following:

Card Number: \_\_\_\_\_ Expiration Date ( MM/YY): \_\_\_\_ / \_\_\_\_  
Security code (card ID) on **back of Visa/MasterCard** card or **front of American Express** Card:  


Address for where the **credit card bill is sent:** \_\_\_\_\_  
( This is the address that the credit card bill would go to, not where we would send the data or product to )  
Zip for where the **credit card bill is sent:** \_\_\_\_\_  
( This is the zip code that the credit card bill would go to, not where we would send the data or product to )

PROGRAM ORDER FORM: (Pricing effective as of 5/3/20 - prices subject to change without notice)		
Expert AutoStats®:	\$ 675.00 *	\$ _____
4N6XPRT BioMeknx®:	\$ 550.00 *	\$ _____
4N6XPRT Ped & Bike Calcs®:	\$ 375.00 *	\$ _____
Expert Qwic Calcs®:	\$ 275.00 *	\$ _____
Expert TireStuf®:	\$ 85.00 *	\$ _____
4N6XPRT StifCalcs®:	\$ 700.00 *	\$ _____
Expert VIN DeCoder®:	\$ 575.00 *	\$ _____

**SUB-TOTAL** \$ \_\_\_\_\_  
Handling \*\*: \$ \_\_\_\_\_  
( Cash or Check with order = \$5.00, Credit Card = \$10.00 ,  
Govt. Purchase Order = \$15.00 )  
Notarized Affidavit Filing Requirement \$ \_\_\_\_\_  
( \$25.00 per required Notarized Signature )

Normal delivery is via electronic download  
☐ - Deliver via electronic download link (e-mail address required) \$ 0.00  
☐ - Deliver on USB - **additional cost of \$50.00 / disk / program** \$ \_\_\_\_\_  
**SUB-TOTAL** \$ \_\_\_\_\_  
California shipping addresses add **8.5%** sales tax \$ \_\_\_\_\_  
(California orders delivered electronically **DO NOT** owe sales tax)  
**TOTAL** \$ \_\_\_\_\_

Authorized signature: \_\_\_\_\_

# Individual Vehicle Data Search Service®

## Charges & Services

**Individual Vehicle Specifications**  
**\$50.00-First vehicle\***, \$40.00/Additional Vehicles\*,  
\$30.00/Additional Similar Model\*

**Medium/Heavy Truck Specifications**  
**\$50.00-First vehicle\***, \$40.00/Additional Vehicles\*,  
\$30.00/Additional Similar Model\*

**Motorcycle Specifications (1970+)**  
**\$50.00-First cycle\***, \$40.00/Additional cycles\*,  
\$30.00/Additional Similar Model\*

**NHTSA Crash Test Results**  
**\$50.00 per test** - Includes A, B, & G values  
Calculations are based on the test results

**Individual Vehicle Specifications**  
Now you can get the Expert AutoStats® data for the vehicles  
in your case **QUICKLY, EASILY**, and **ECONOMICALLY**,  
instead of guessing, or begging a printout from a friend.

Our vehicle database includes dimensions on over 50,000 Cars,  
Vans, Lt. Pickups, and Utility Vehicles covering 1945 to the  
present.

Minimum Vehicle specifications include:

Overall Length	Curb Weight
Overall Width	Weight Distribution
Overall Height	Front/Rear Track
Wheelbase	CG Location
Model years with No Significant Dimensional Changes VIN DeCoding when VIN is provided Information available	
Mid-60's to present <b>also includes</b> (when available)	
Front/Rear Overhang	Bumper Heights
Hood height	Turning Circle
Bumper-to-hood	Ground-to-hood

Dimensions are given in both Imperial and metric (SI) units.  
Motorcycle specifications will be similar to the Vehicle  
specifications with appropriate changes where applicable.

**NHTSA Crash Test Results**  
Test results include: General Test information, Barrier Data  
when provided, Vehicle Data as reported by the testing  
organization, Occupant (Dummy) data when provided, and  
A-B-G Stiffness calculations based on the test results.

# 4N6XPRT Systems®

Providing Vehicle dimensional data, VIN DeCoding,  
and NHTSA Crash Test Results as a service to the  
Litigation community, in the form of:

Expert Systems Software Programs for Litigation

**Expert AutoStats®**  
**4N6XPRT StifCalcs®**  
**4N6XPRT BioMeknx®**  
**4N6XPRT Ped & Bike Calcs®**  
**Expert Qwic Calcs®**  
**Expert TireStuf®**  
**Expert VIN DeCoder®**

Vehicle Data Service

## Individual Vehicle Data Search Service®

8387 University Avenue, Suite P  
La Mesa, CA 91942-9342

Phone: 1-800-266-9778

Fax: (619) 464-2206

E-Mail: **4n6@4n6xpirt.com**

Web: **http://www.4n6xpirt.com**



## Expert VIN DeCoder®

Expert VIN DeCoder® is a program that "DeCodes" the 17 character VIN number for vehicles manufactured from 1981 to the present.

### Modules: 1981 to Present

Control Module - One Required per Set

Ford Cars (includes Festiva & Merkur)  
Mercury/Lincoln Cars  
Ford vans/Utility/Lt. Trucks

Chevrolet/Geo Cars  
Pontiac/GM of Canada Cars  
Oldsmobile Cars  
Buick Cars  
Cadillac/Saturn Cars  
General Motors Vans/Utility/Lt. Trucks

Chrysler/AMC/Jeep Cars  
Chrysler/Jeep Vans/Utility/Lt. Trucks

European Import Cars/Vans/Utility/Lt. Trucks  
Asian Import Cars/Vans/Utility/Lt. Trucks

## SYSTEM REQUIREMENTS

Expert VIN DeCoder® has been tested on a wide variety of IBM laptop and desktop clones ranging from 8088 through Pentium® chips. A math co-processor chip is NOT required. Expert VIN DeCoder® has also been tested under the various versions of MS-DOS 3.0 thru 7.0, DrDOS 6.0, and PC DOS 7.0. It also works as a DOS program under Windows 3.x, Windows 95, Windows 98, Windows NT, OS/2 2.x, OS/2 Warp, and various versions of LINUX.

A variety of dot matrix printers emulating the EPSON series have been used with no difficulty. The output is also compatible with the Hewlett-Packard II, IIP, III and IIIP Laser printers. Expert VIN DeCoder® works with monochrome and color monitors.

As of April 1995 the 4N6XPRT Systems® programs Expert AutoStats®, Expert Qwic Calcs®, Expert TireStuf®, 4N6XPRT Ped & Bike Calcs®, and Expert VIN DeCoder® are accessible from within RECTEC.

## PLEASE PRINT

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Expert VIN DeCoder®

\_\_\_\_\_ (copies) x \$575.00 . . . . . = \$ \_\_\_\_\_

Handling \*\*: \_\_\_\_\_ \$ \_\_\_\_\_

( Check with order = \$5.00, Credit Card = \$10.00 , Govt. P.O.r = \$15.00 )

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Signature: \_\_\_\_\_

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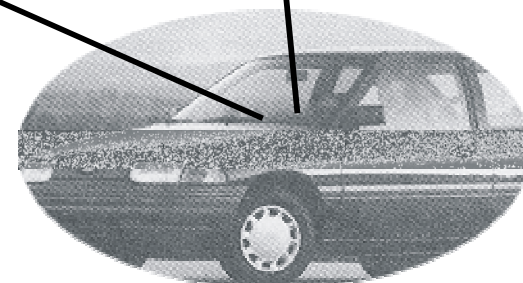
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# Expert VIN DeCoder®

3FAPP1280MR117253



User Friendly Software to provide interpretation of the 17 character VIN Number on Cars, Lt. Pickups, Utility Vehicles, and Vans.

## 4N6XPRT Systems®

Forensic Expert Software  
8387 University Avenue  
La Mesa, CA 91942-9342

**Web: <http://www.4n6xpirt.com>**

**E-Mail: [VIN@4n6xpirt.com](mailto:VIN@4n6xpirt.com)**

**1-800-266-9778**

## Expert VIN DeCoder® example

---

### INPUT:

1) Enter VIN Numbers to be DeCoded: 3FAPP1280MR117253

-----

**3FA PP128 0 MR 117253**

2) Is this the VIN Number to be DeCoded (Y/N)? **Y**

---

### OUTPUT:

#### EXPERT VIN DeCoder

The VIN Number is 3FA PP128 0 MR 117253

The vehicle should be a 1991 Ford

The model: Escort 2/3-door Hatchback GT

The assembly plant: Hermosillo, Mexico

The 4 passenger vehicle had : Passive (Automatic) Front Belts

The OEM engine was: In-line 4 cylinder with Double Overhead Cam

Engine Displacement/Type = 1.8 L/ 112 cu.in. L4, DOHC

Brake Horsepower (SAE) = 127 @ 6500 rpm

Torque (SAE) = 114 lb-ft at 4500 rpm

Engine manufacturer = Mazda

The fuel distribution system: Electronic Fuel Injection (EFI)

Fuel pump/line pressure = 35-45 psi

The ignition system = electronic

This is a Front Wheel Drive vehicle.

The first three characters {3, F, A} indicates that the vehicle was a Ford made in Mexico

The fourth character {P} indicates the vehicle had Passive (Automatic) Front Belts

The fifth character {P} indicates it was a Passenger Car

The sixth with the seventh character {12} indicates a Escort 2/3-door Hatchback GT

The eighth character {8} indicates the OEM engine : 1.8 L/ 112 cu.in. L4, DOHC

The 9th Character { the Check Digit } is 0

The calculated Check Digit value is 0

The tenth character {M} indicates the Model Year was 1991

The eleventh character {R} indicates it was made at the assembly plant in Hermosillo, Mexico

The twelveth through the seventeenth characters { 117253 } is the Serial Number unique to this vehicle.

## Expert AutoStats®

The Expert AutoStats® program contains data on more than 50,000 cars, pick-ups, vans, and utility vehicles that range in years from the 1940's to the present. The Expert AutoStats® base information can assist in reconstructing accidents when the data for the vehicle is unavailable or the vehicle is too severely damaged to get correct measurements. The program is currently relied upon by over 700 private and 300 Government entities within the United States for this very purpose. Additionally, for many vehicles mid-1960's to present, data such as bumper height, front and rear overhang, hood height, etc., are also included.

As of April 1995 the 4N6XPRT Systems® programs Expert AutoStats®, Expert Qwic Calcs®, Expert TireStuf®, and Expert VIN DeCoder® are accessible from within RECTEC.

### SYSTEM REQUIREMENTS

Expert AutoStats® has been tested on a wide variety of IBM laptop and desktop clones ranging from 8088 through Pentium® chips. A math co-processor chip is NOT required. Expert AutoStats® has also been tested under the various versions of MS-DOS 3.0 thru 7.0, DrDOS 6.0, and PC DOS 7.0. It also works as a DOS program under Windows 3.x, Windows, 95, Windows 98, Windows NT, Windows Me, Windows 2000, Windows XP, Windows Vista/7/8/10, OS/2 2.x, OS/2 Warp, and various versions of LINUX.

A variety of dot matrix printers emulating the EPSON series have been used with no difficulty. The output is also compatible with the Hewlett-Packard II, IIP, III and IIIP Laser printers and Hewlett-Packard Desk Jet inkjet printers. Expert AutoStats® works with monochrome and color monitors.

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AutoStats® \_\_\_\_\_ (copies) x \$675.00 .. = \$ \_\_\_\_\_  
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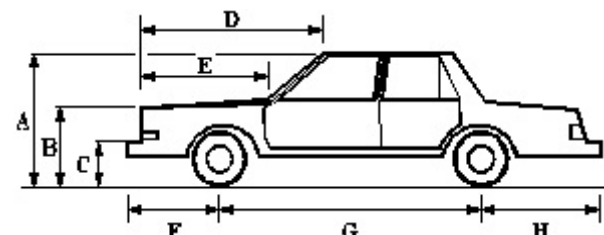
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# Expert AutoStats®



Over 50,000 cars, pick-ups, vans, and utility vehicles 1940's to the present are represented.

### 4N6XPRT Systems®

Forensic Expert Software  
8387 University Avenue  
La Mesa, CA 91942-9342

**Web: <http://www.4n6xpirt.com>**  
**E-Mail: [autostats@4n6xpirt.com](mailto:autostats@4n6xpirt.com)**

1-800-266-9778

## Select Your Vehicle

After typing in the Make, Year, and Type of vehicle, you are presented with the vehicles which are available for that year.

## Screen 1

The first screen of data contains exterior dimensions and weight data. Length, Height, Wheelbase, Width, and Weight Distribution are published dimensions. Curb Weight is an average of published curb weights for the given vehicle. Detail dimensions such as the bumper heights and Front Bumper to Front of

Hood are measurements obtained by our staff from actual vehicles.

## Screen 2

The second screen of data contains interior dimensions and various performance data. The data contained in the second screen comes from various published sources.

## Screen 3

The third and last screen contains a number of calculated items of information which may be of use depending upon the type of case, the

other software that you use, and the questions which need to be answered.

## DXF Output Screen

From within the Expert AutoStats program you have the ability to output the data to a 2-D DXF file for importation into your CAD Scene Drawings. The screen below shows an import of the DXF file with Text into the CAD Zone program.

## CADZONE Import



4N6XPRT StifCalcs®

Introducing ..... 4N6XPRT StifCalcs®. A program which puts the NHTSA Crash Test database at your fingertips with no need to access the internet in order to obtain Stiffness Values!

In addition to the NHTSA Crash Test data, the program includes a “Similar Vehicle Reader”. Initially developed in cooperation with Greg Anderson and maintained by 4N6XPRT Systems starting with the 2013 version. The reader allows quick retrieval of vehicles similar to the desired vehicle. The Reader drives the initial selection of the available tests. Alternatively, we have an ADVANCED SEARCH module which allows the creation of “CLASS” vehicles.

**STIFFNESS DATA**, based on the selected test or test grouping is automatically calculated based on the reported crush depths and widths for front, side, and rear tests.

The User can - **WITHOUT the need for the internet:**

- ★ Lookup individual tests and get basic front, side, or rear (as appropriate to the test) **STIFFNESS VALUES** from the selected test. The values are based on the reported crush depths and lengths within each test.
- ★ Obtain Similar Vehicle group summary **STIFFNESS VALUES** with Statistical measures.
- ★ Create “CLASS” vehicles and get summary **STIFFNESS VALUES** with Statistical measures.

FRONTAL STATISTICAL MEASURES  
EXAMPLE:

	-----Vehicle Width-----			
	-----Stiffness Values-----			
	A	B	G	Kv
Average (AVG)	305.7	93.5	523.6	143.1
Minimum (MIN)	115.0	13.2	465.2	23.5
Maximum (MAX)	461.6	200.0	614.1	387.3
Standard Deviation (STDev-sample)	73.4	38.4	36.2	72.8
Number of Tests (n)	53			

**WITH an internet connection** the User will also be able to -

- ★ **RESEARCH** and **download** the **PICTURES,  
VIDEOS,  
and  
REPORTS**

that are available for the individual tests

**SYSTEM REQUIREMENTS**

4N6XPRT StifCalcs® is a MS-Windows program designed to work under a 32 **or** 64-bit ( 2000/XP/Vista/7/8/10) Windows System.

PLEASE PRINT

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Fax: \_\_\_\_\_  
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StifCalcs® \_\_\_\_\_ (copies) x \$700.00 . . . = \$ \_\_\_\_\_  
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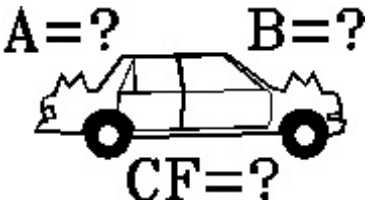
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All prices are in U.S. Dollars, and subject to change **WITHOUT NOTICE.**  
Orders outside of U.S.A. shipped via E-Mail attachment **ONLY.***

4N6XPRT  
StifCalcs®



Quick, Convenient, Easy access to the NHTSA Crash Test data on your own MS-Windows computer without the need for an internet connection.

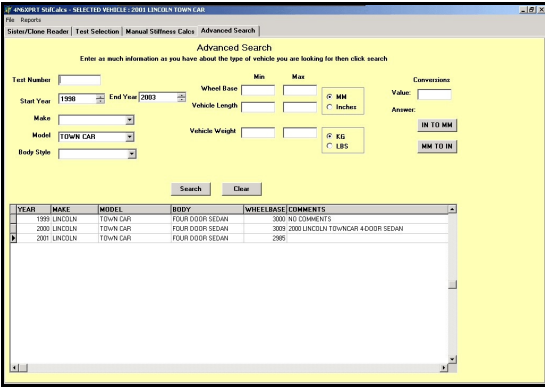
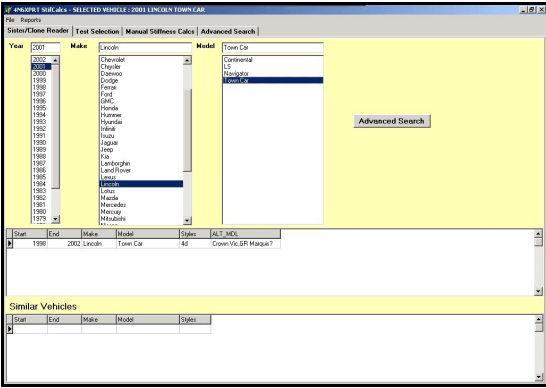
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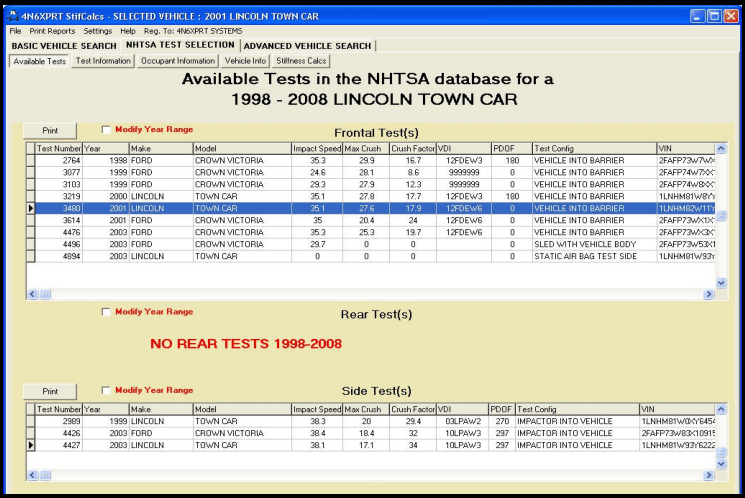
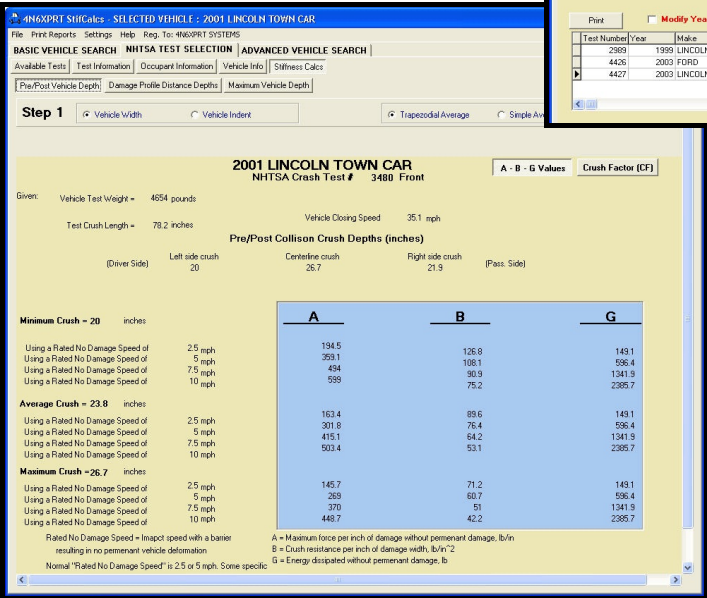
# BASIC VEHICLE CRASH TEST SEARCH

Select the desired vehicle through our **SIMILAR VEHICLE READER**



Once the desired vehicle is found/selected, click on the Test Selection tab. From here, select the test to be viewed

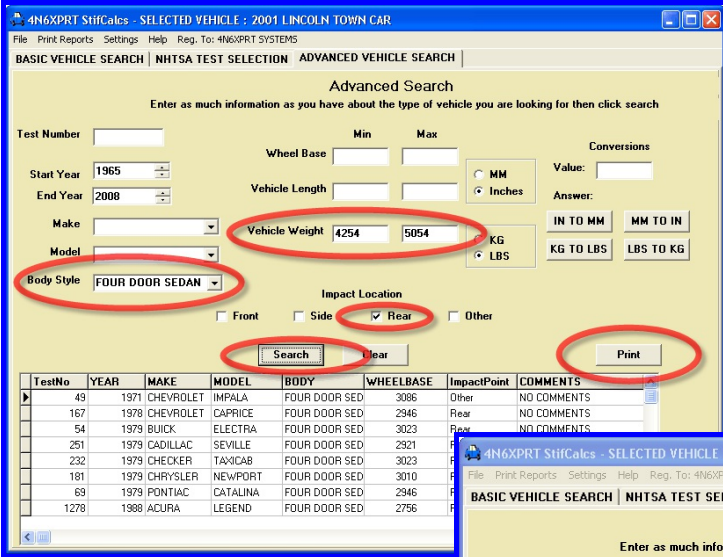
Once a test is selected, the available data



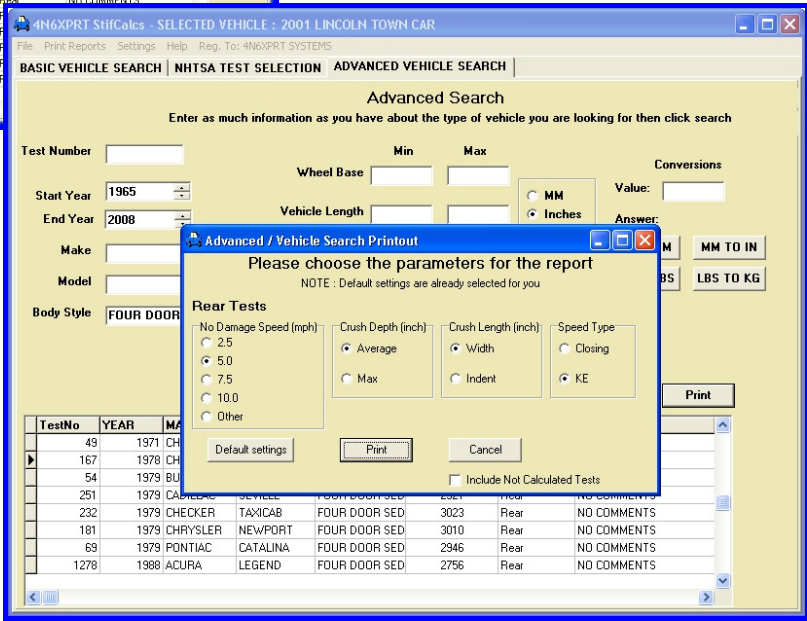
for the Test, Occupant(s), Vehicle(s), and Stiffness data can be viewed. The stiffness values are automatically generated from the available test data.

# "CLASS" VEHICLE CRASH TEST SEARCH

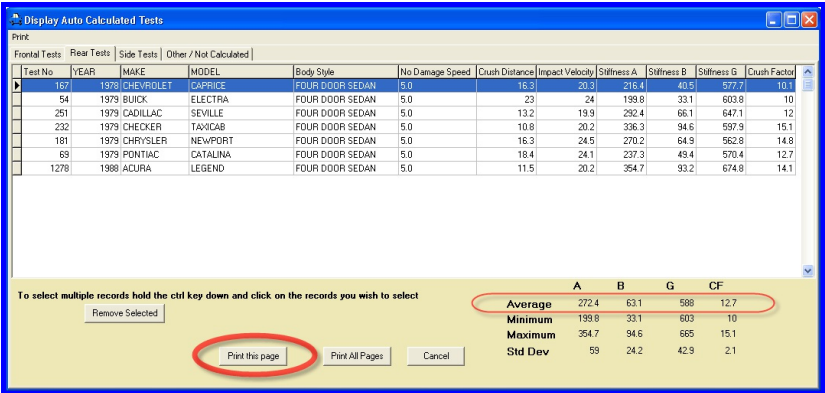
Using the **ADVANCED SEARCH** tab, you can also create a **CLASS** of vehicle for when there are no tests available for the specific vehicle and test type. To create a class of **REAR IMPACT** stiffness values for the Lincoln, first set the **weight range**, **body style**, and **test type**, then **search** the database, when you have a sufficient number of tests (that is, more than one or two) that have been found, click the **PRINT** button:



Now Set your calculation parameters - **No Damage Speed** - **Crush Depth** - **Indentation** (**Crush**) **Length** - and **Speed**, then view your results, and if desired, print them to hard copy



The program will calculate the



**AVERAGE, MINIMUM, MAXIMUM, and Standard Deviation** of the Stiffness Values calculated based upon the parameters you set in the preceding step.

# 4N6XPRT Systems

Expert System Software for Litigation

8387 University Avenue  
La Mesa, CA 91942-9342

FED Tax ID No.: 95-3121248

Phone: 1- 800-266-9778

Fax: (619) 464-2206

Web Site: <http://www.4n6xpert.com>

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Expert Qwic Calcs® - Expert TireStuf® - 4N6XPRT Ped & Bike Calcs®**

Please use this order form when ordering your programs. Due to conditions and rising costs beyond our control, Shipping & Handling must be paid per the included schedule.

Contact Name: \_\_\_\_\_

Title: \_\_\_\_\_

Company/Organization: \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ FAX: (\_\_\_\_) \_\_\_\_\_

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4N6XPRT Ped & Bike Calcs®:	\$ 375.00 *	\$ _____
Expert Qwic Calcs®:	\$ 275.00 *	\$ _____
Expert TireStuf®:	\$ 85.00 *	\$ _____
4N6XPRT StifCalcs®:	\$ 700.00 *	\$ _____
Expert VIN DeCoder®:	\$ 575.00 *	\$ _____
		=====

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Card # \_\_\_\_\_ Expires \_\_\_\_\_ SecCode \_\_\_\_\_

Billing Add. : \_\_\_\_\_ Billing Zip: \_\_\_\_\_

Name on Card: \_\_\_\_\_ Signature: \_\_\_\_\_

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- California orders cannot be shipped without sales tax included.
- Written Purchase Orders must be received in office before shipping.

\* Prices are subject to change without notice. Call for Multi-program and package purchase discounts.

\*\* Orders will normally be shipped within 10 working days. Other shipping methods may cost extra. The Handling charge listed is for the first program, add \$5.00 per additional program ordered at the same time and shipped to the same address.

Please make checks, money orders or Purchase Orders Payable to: **4N6XPRT Systems®**  
You may call or fax your order to us if paying by credit card.



## THE PRODUCT

We are now offering a new resource to our customers at what we believe to be a reasonable price. We are currently offering our models for the price of \$100.00 USD per model.

The models are to be purchased through the online shopping cart, and downloaded directly to your computer. We have placed no “locks” on the actual models, so our anticipation is that there is no need for you to purchase more than one of any model at a given time, as you can just reuse the single model purchased (as long as you don’t make significant editing changes). If you do happen to somehow mess up the purchased model, you can download the purchased model up to 5 times within a 90 day time period.

The point cloud models are just that, point clouds. We do not offer the models in a mesh format at this time.

Our intent in offering this new service/product is to:

- \* Provide exemplar Point Clouds to our customers in a somewhat “universal” format (E57). The point cloud format can easily be converted using a program called CLOUD COMPARE if the user has a need to do so. This program can be downloaded at no charge from the internet.
- \* Provide the models at a reasonable cost, especially for the lower budget cases.
- \* Provide something that is Ideal for use as exemplars for crush analysis.
- \* Allow users to obtain detail dimensions not readily available through other means.

## CAUTIONS & LEGAL STUFF

® Denotes a Trademark registered with the USPTO. All of the program materials are copyrighted under U.S. and International Law.

- The E57 Point Cloud model is being provided “As Is”.
- We are not responsible for the mis-use or mis-representation of the scan data provided, nor the information extracted based on that mis-use or mis-representation.
- The Scan units were “inches”. Depending on your Point cloud program, the import units may be Meters, Inches, or Feet. You should be sure to check a “known” dimension, such as wheelbase, to verify what your Point Cloud units are before working with the point cloud.
- The Point Cloud is provided “As Scanned”. No Scaling has been done to the point cloud. If “exact” measurements are important to you, it is suggested that you scale the Point Cloud to match published or measured Overall Length, Wheelbase, or some other dimension that is important to you.
- Some manufacturers have production “problems” (eg – “deer hunter”/“deer hunting season” production or last minute design changes) which lead to dimensions on the actual vehicle which may differ significantly from published information for a specific vehicle, make, or model series.

• **You DO** have the right to bill your clients for the Point Cloud model as an expense.

• **You DO NOT** have the right to resell the point clouds purchased from us as your own product.

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offered by

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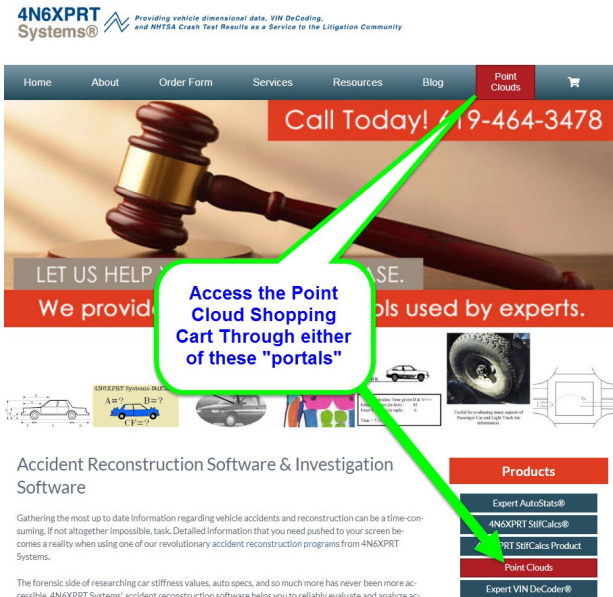
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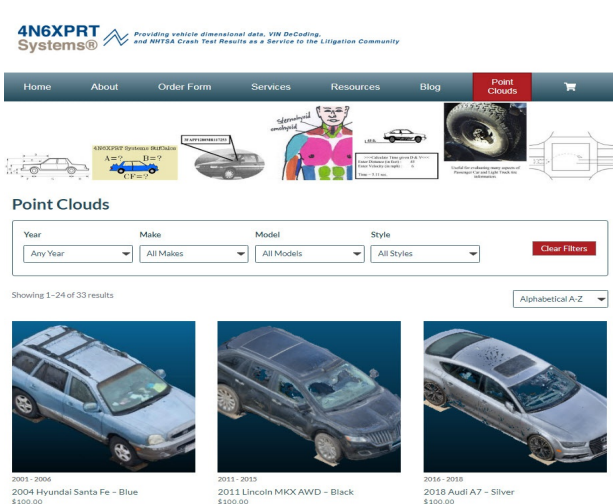
email: [4n6@4n6xpert.com](mailto:4n6@4n6xpert.com)

**[www.4N6XPRT.com](http://www.4N6XPRT.com)**

You can enter the Point Cloud Shopping Cart page through two different “portals” on our web site, one along the top menu bar, the other down the right side menu bar.



After entering the shopping cart, you are able to filter the available models, or just scroll down to view.



## FILTERS:

**YEAR** - will bring up all available models where the year range spans the selected year

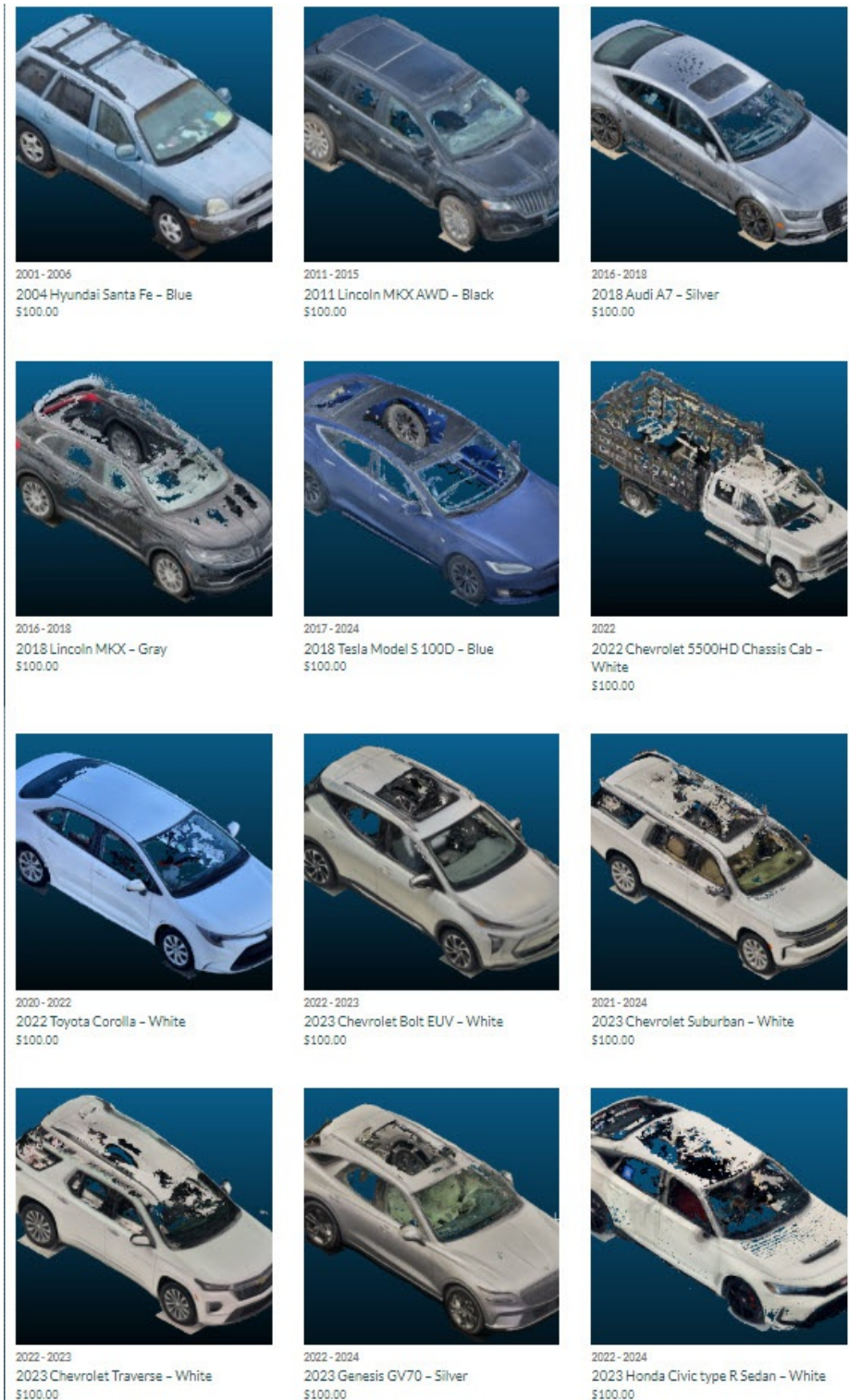
**MAKE** - Will bring up all the models available for a given manufacturer.

**MODEL** - The filter is set for a “base” model. So, for instance, ATLAS will bring up all of the ATLAS and ATLAS CROSS models for Volkswagen, as well as any other manufacturers which have a model with ATLAS in the model name.

**STYLE** - This is meant as a generic classification - Car Truck / Utility / Van.

As of 4-20-2024 we have 33 models available for sale and download. We will be adding additional models weekly for the foreseeable future.

12 of the models we have already uploaded can be seen to the right.



# 4N6XPRT Systems

Expert System Software for Litigation

8387 University Avenue  
La Mesa, CA 91942-9342

FED Tax ID No.: 95-3121248

Phone: 1- 800-266-9778

Fax: (619) 464-2206

Web Site: <http://www.4n6xpert.com>

E-Mail: [4n6@4n6xpert.com](mailto:4n6@4n6xpert.com)

Dear Customer,

Due to the governments desire ( both U.S. & California ) to “protect us” we will need the following information from you in order to process your credit card(s). Please complete this form and return it with your order.

Card type: Am. Express / Visa / MasterCard

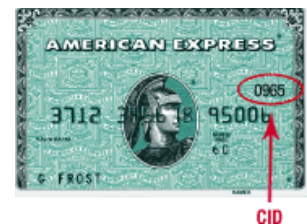
Card Number: \_\_\_\_\_

Expiration Date ( MM/YY): \_\_\_\_/\_\_\_\_



←Visa/MasterCard

American Express →



Security code (card ID) on back of Visa/MasterCard card or front of American Express Card:

Address for where the **credit card bill is sent**:

\_\_\_\_\_  
( This is the address number - for instance, ours would be **8387 University Avenue** - that the credit card bill would go to,  
not where we would send the data or product to )

City/State/Zip for where the **credit card bill is sent**:

\_\_\_\_\_  
( - for instance, ours would be **La Mesa, CA 91941** - that the credit card bill would go to,  
not where we would send the data or product to )

Authorized signature: \_\_\_\_\_

We appreciate your cooperation in supplying us with this information and understanding that it is being required of us to obtain the information.

Sincerely,

A handwritten signature in black ink that reads 'Daniel W. Vomhof III'.

Daniel W. Vomhof III  
General Manager/Technical Support



# Individual Vehicle Data Search Service® Charges & Services

## Individual Vehicle Specifications

**\$50.00-First vehicle\***, \$40.00/Additional Vehicles\*,  
\$30.00/Additional Similar Model\*

## Medium/Heavy Truck Specifications

**\$50.00-First vehicle\***, \$40.00/Additional Vehicles\*,  
\$30.00/Additional Similar Model\*

## Motorcycle Specifications (1970+)

**\$50.00-First cycle\***, \$40.00/Additional cycles\*,  
\$30.00/Additional Similar Model\*

## NHTSA Crash Test Results

**\$50.00 per test** - Includes A, B, & G values  
Calculations are based on the test results

## NHTSA Crash Test Results

Test results include: General Test information, Barrier Data when provided, Vehicle Data as reported by the testing organization, Occupant (Dummy) data when provided, and A-B-G Stiffness calculations based on the test results.

You may make your request by phone or fax or Email. Our fax machine is on 24 hours/day and can be reached at:

**(619) 464-2206**

## FAX/Order Form

- ☐ Expert VIN Decoder & Expert AutoStats
- ☐ NHTSA Crash Test Results
- ☐ BOTH

*Please circle ALL OPTIONS that apply*

YEAR & MAKE: \_\_\_\_\_

MODEL: \_\_\_\_\_

If you are requesting

**VIN DeCoder & AutoStats**

please also provide the following information:

No. of Doors: 2/3/4/5  
Body Style: Coupe/Conv./Sedan/Wagon  
SUV & P/U: 4x2 / 4x4 / Dual Rear Wheel  
PICKUPS: Std. / Extra / Super / Crew Cab  
Short Bed / Long Bed  
VANS: Cargo / Passenger  
Short / Long Wheelbase

VIN Information

1	2	3	4	5	6	7	8	9
10	11	12	13	14	15	16	17	

## NHTSA Crash Test Information

Impact location - Front / Side / Rear

## PAYMENT INFORMATION

**Visa/MasterCard / American Express:**

Expires: \_\_\_\_ / \_\_\_\_ Sec.Code \_\_\_\_\_

Name & Address: \_\_\_\_\_

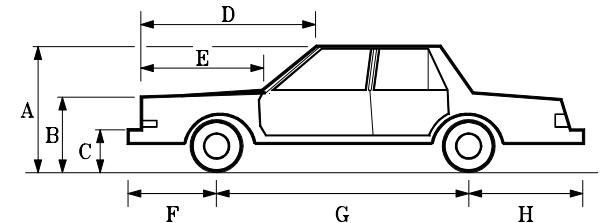
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_

Email: \_\_\_\_\_

Case Reference Name/Number: \_\_\_\_\_

# Individual Vehicle Data Search Service®



Providing Vehicle dimensional data, VIN DeCoding, and NHTSA Crash Test Results as a service to the Litigation community.

E-Mail: [ivdss@4n6xpirt.com](mailto:ivdss@4n6xpirt.com)

**FAX: (619) 464-2206**

**Phone: (619) 464-3478 / 1-800-266-9778**

**4N6XPRT Systems®**

Forensic Expert Software

8387 University Avenue, Suite P

La Mesa, CA 91942-9342

**Web: <http://www.4n6xpirt.com>**

## VIN DeCoding Information

How often have you been confronted with the following on a Traffic Collision Report - “87 Ford, 4 door, Blue”? We have the answer to the problem of determining WHICH Ford 4 door model this was!

We will DeCode the VIN number and provide you with the information contained within that VIN number

Information generally includes:

Year	OEM Engine
Make	Displacement/Type
Model	Rated Horsepower
Drive Wheels	Rated Torque
Rated Pass. Load	Ignition System
Plant of Manufacture	Fuel Line Pressure

Also (*when provided by VIN*)

Gross Vehicle Weight	Safety Equipment
Transmission	

A DMV search for a vehicle identification from the registration will typically cost less than \$10.00 and will give the VIN number, Make, and Year of vehicle. However, to also obtain the vehicle Model requires a “Manual Search” which will typically cost \$30.00/vehicle/year searched or more.

With our service, you will be able to find out the model of vehicle as well as all of the other information mentioned above. This information will be faxed to you, typically in less than one working day, and the hard copy will follow in the mail.

Allow us to help you have all the information you require in your next Accident, Personal Injury, Criminal, Domestic, or Product Liability case.

## Individual Vehicle Specifications

Now you can get the Expert AutoStats® data for the vehicles in your case **QUICKLY, EASILY,** and **ECONOMICALLY**, instead of guessing, or begging a printout from a friend.

Our vehicle database includes dimensions on over 35,000 Cars, Vans, Lt. Pickups, and Utility Vehicles covering 1945 to the present.

Minimum Vehicle specifications include:

Overall Length	Curb Weight
Overall Width	Weight Distribution
Overall Height	Front/Rear Track
Wheelbase	CG Location

Model years with No Significant Dimensional Changes  
VIN DeCoding when VIN is provided Information available

Mid-60's to present **also includes** (*when available*)

Front/Rear Overhang	Bumper Heights
Hood height	Turning Circle
Bumper-to-hood	Ground-to-hood

Dimensions are given in both Imperial and metric (SI) units. Motorcycle specifications will be similar to the Vehicle specifications with appropriate changes where applicable.

While the VIN number contains much information, it does not contain everything needed to identify a particular vehicle in every situation. Therefore, we would appreciate you providing as much of the information on the order form as possible.

If you are not sure of the specific model, we will provide dimensions on the similar model vehicles matching the provided data for a small additional cost per model\*.

## SERVICE

You may make your request by phone or fax. Our fax machine is on 24 hours, 7 days a week, and can be reached at (619) 464-2206. A request may also be made by e-mail, which reaches us when we are “on the road” as well as in the office..

Upon receiving your request, we will research your request and **e-mail or fax the information to you at NO ADDITIONAL CHARGE!** Normal response time is one working day or less. Your hard copy will follow in the mail.

Please include the vehicle information on the sample order form when requesting your Individual Vehicle Data Search. Please also be sure to provide a Visa, MasterCard, or American Express number, name as it appears on the card, Expiration date, and the billing address # and Zip.

\*Pricing is for multiple vehicles on same Order/Request. Similar Vehicles may be required when it is not possible to determine the exact model of vehicle requested, based upon the information provided.



# Individual Vehicle Data Search Service® Charges & Services

You may make your request by phone, fax, or Email.  
Our fax machine is on 24 hours/day and can be  
reached at

**(619) 464-2206**

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**\$50.00-First vehicle\***, \$40.00/Additional Vehicles\*,  
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**\$50.00-First cycle\***, \$40.00/Additional cycles\*,  
\$30.00/Additional Similar Model\*

## NHTSA Crash Test Results

**\$50.00 per test** - Includes A, B, & G values  
Calculations are based on the test results

Contact Name & Address:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_

Fax: (\_\_\_\_) \_\_\_\_\_

E-Mail \_\_\_\_\_

## **PAYMENT INFORMATION** **Visa/MasterCard / American Express:**

Expires: \_\_\_\_ / \_\_\_\_

Credit Card billing address and Zip:

Address: \_\_\_\_\_

Zip: \_\_\_\_\_

Security Code # \_\_\_\_\_

## FAX/Order Form

- ☐ Expert VIN Decoder & Expert AutoStats  
☐ NHTSA Crash Test Results  
☐ BOTH

*Please circle ALL OPTIONS that apply*

YEAR & MAKE:

MODEL: \_\_\_\_\_

If you are requesting  
**VIN DeCoder & AutoStats**  
please also provide:

No. of Doors: 2/3/4/5  
Body Style: Coupe/Conv./Sedan/Wagon  
SUV - P/U: 4x2 / 4x4 / Dual Rear Wheel  
PICKUPS: Std. / Extra / Super / Crew Cab  
Short Bed / Long Bed  
VANS: Cargo / Passenger  
Short / Long Wheelbase

### VIN Information

1	2	3	4	5	6	7	8	9
10 11			12 13 14 15 16 17					

## NHTSA Crash Test Information

YEAR & MAKE:

MODEL: \_\_\_\_\_

Impact location - Front / Side / Rear

Case

Reference/Number: \_\_\_\_\_

## FAX/Order Form

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*Please circle ALL OPTIONS that apply*

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Card type: Am. Express / Visa / MasterCard

Card Number: \_\_\_\_\_

Expiration Date ( MM/YY): \_\_\_\_/\_\_\_\_



←Visa/MasterCard

American Express →



Security code (card ID) on back of Visa/MasterCard card or front of American Express Card:

Address for where the **credit card bill is sent**:

\_\_\_\_\_  
( This is the address number - for instance, ours would be **8387 University Avenue** - that the credit card bill would go to,  
not where we would send the data or product to )

City/State/Zip for where the **credit card bill is sent**:

\_\_\_\_\_  
( - for instance, ours would be **La Mesa, CA 91941** - that the credit card bill would go to,  
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Authorized signature: \_\_\_\_\_

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Sincerely,

A handwritten signature in black ink that reads 'Daniel W. Vomhof III'.

Daniel W. Vomhof III  
General Manager/Technical Support