## Vehicle Identification Numbers

## Vehicle Identification Number (VIN)

- Every vehicle manufactured for sale in the US
- Fingerprint, a VIN is unique for every vehicle
  - ► Contains coded information about the vehicle
- Primary purpose: identify each vehicle if stolen
- ▶ Other uses:
  - ▶ Track registrations
  - Insurance coverage
  - ► Track parking tickets
  - Smog Check Vehicle Identification

#### **Pre 1981 VIN**

- First used in 1954
- From 1954 to 1981, there was no accepted standard
- Manufacturers used different formats
- Location on the vehicle was not standardized
- ► This affects 1976 to 1980 vehicles that are subject to smog inspection

# 1981: National Highway Traffic Safety Administration (NHTSA) created a unified and standardized VIN system

- Requires 17 alpha / numeric characters that uniquely identifies the vehicle
  - ▶The letters I, O or Q' cannot be used
  - if a character looks like a I, O or Q; it is a 1 or a zero
- ▶ VIN is required to have 7 sections
- Beginning with the 1980 model year, the VINs of any two vehicles
- manufactured within a 60-year period must not be identical

#### Character VIN Breakdown

- ▶ 1<sup>st</sup>: character identifies the country of origin
- ▶ 2<sup>nd</sup>: character identifies the manufacturer
- > 3<sup>rd</sup>: character identifies a division within the manufacturer

## North America Country Codes

- North American Countries are represented by numbers:
  - ▶United States (1, 4 or 5)
  - ►Canada (2)
  - ►Mexico (3)

## Characters 4 through 8

- Do not have a designated use
- Manufactures use them to describe the attributes of the vehicle
- ▶ 4<sup>th</sup> character often identifies the platform
- ▶ 5<sup>th</sup> and 6<sup>th</sup> characters identify other vehicle attributes
- 7<sup>th</sup> character usually identifies body type (ie coupe, sedan, SUV, truck)
  - Must always be alphabetic
- ▶ 8th character usually provides the engine information
- http://www.angelfire.com/ca/TORONTO/VIN/WMI.html#mfg

#### Character Breakdown

- > 9th character is always an accuracy check digit
  - ► <a href="http://www.angelfire.com/ca/TORONTO/VIN/c">http://www.angelfire.com/ca/TORONTO/VIN/c</a> heckdigit.html
- ▶ 10<sup>th</sup> character is the model year
  - ► September 1<sup>st</sup> through August 31<sup>st</sup>
- ▶ 11<sup>th</sup> is the plant code
- ► Last six characters, 12 through 17, are the production sequence numbers

## 10<sup>th</sup> Character is Model Year

Δ.	4000	1	4000	V	2000	۸	2040
Α	1980	L	1990	Y	2000	Α	2010
В	1981	M	1991	1	2001	В	2011
С	1982	N	1992	2	2002	С	2012
D	1983	Р	1993	3	2003	D	2013
E	1984	R	1994	4	2004	E	2014
F	1985	S	1995	5	2005	F	2015
G	1986	T	1996	6	2006	G	2016
Н	1987	V	1997	7	2007	Н	2017
J	1988	W	1998	8	2008	J	2018
K	1989	X	1999	9	2009	K	2019

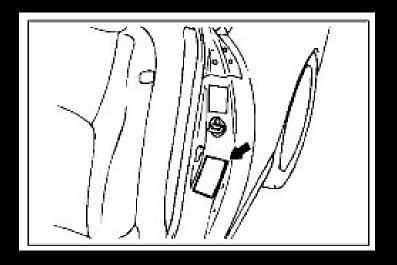
Pattern repeats every 30 years

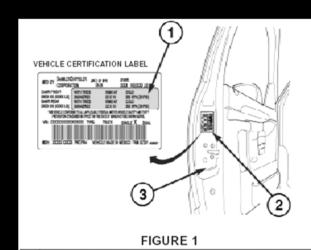
#### Standardized Location

- Driver's side dashboard visible through the windshield from outside the car
- Also located on a decal in the drivers side door jam
- ► Caution if using the VIN on the door jam

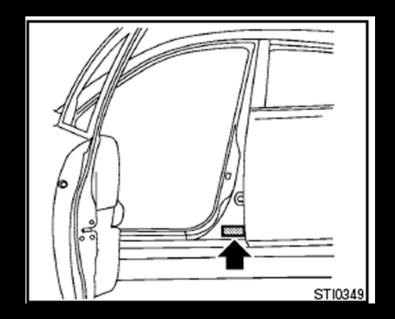
#### VEHICLE SAFETY CERTIFICATION LABEL

- Attached to the left side pillar post or on the rearward-facing section of the left front door.
- Month and year of manufacture
- Gross vehicle weight rating (GVWR)
- Gross axle weight rating (GAWR)
- ▶ Vehicle Identification Number (VIN).





- 1-2-3-APPLY OVERLAY LABEL
- VEHICLE CERTIFICATION LABEL
- DRIVER'S DOOR



Production Date

**GVWR** 

MFD BY GENERAL MOTORS CORP.

10/07

GVWR GAWR FRT GAWR RR
2908KG(6411LB) 1450KG(3196LB) 1600KG(3527LB)
THIS VEHICLE CONFORMS TO ALL APPLICABLE U.S. FEDERAL MOTOR VEHICLE SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.

VIN#

1GKER33788J185785 TYPE: M.P.V.

MODEL: R14526

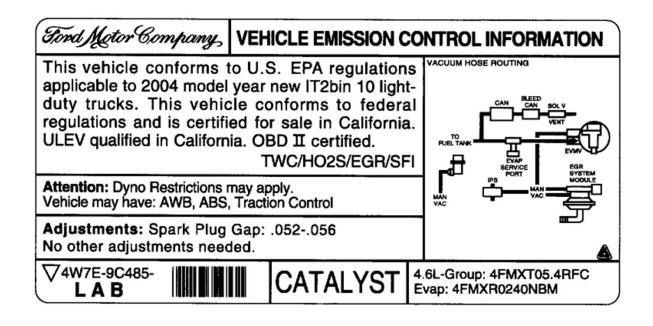
RBBM TIRE SIZE SPEED RTG RIM COLD TIRE PRESSURE

FRT P255/65R18 S 18X7.5J 240KPA(35PSI)
RR P255/65R18 S 18X7.5J 240KPA(35PSI)
SPA T145/70R17 M 17X4.5B 420KPA(60PSI)

SEE OWNER'S MANUAL ( ) FOR MORE INFORMATION.

US Safety Standards

## Vehicle Emission Control Label (VECI)



A0086703

Figure 1: Typical Vehicle Emission Control Information (VECI) Decal.

#### **VECI LABEL**

- ► Engine identification
- ► Required Emission Equipment
- Emissions standard that the vehicle meets
- ► Vacuum hose routing diagram
- ► Base ignition timing (if adjustable)
- ► Spark plug type and gap
- ► Valve lash
- Emission calibration code



Daimler Corpo

Model Year

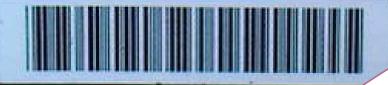
04578405AA₩

VEHICLE EN SION CONTROL INFORMATION

ULEV?

THIS VEHICLE CONFURMS TO U.S. EPA INTERIM NON-TIER 2 BIN 8 REGULATIONS APPLICABLE TO GASOLINE FUELED 2006 MODEL YEAR NEW PASSENGER CARS AND QUALIFIES AS A ULEV 1 UNDER CALIFORNIA CLEANEST VEHICLE REGULATIONS.

DAS FACT ADDI \* ADJI MAY CAUTI



27WC, 2HO2S(2), SFI, **OBDII CERTIFIED** 

6.1 SCRXV 6CRXR

Required **Emission** Equipment

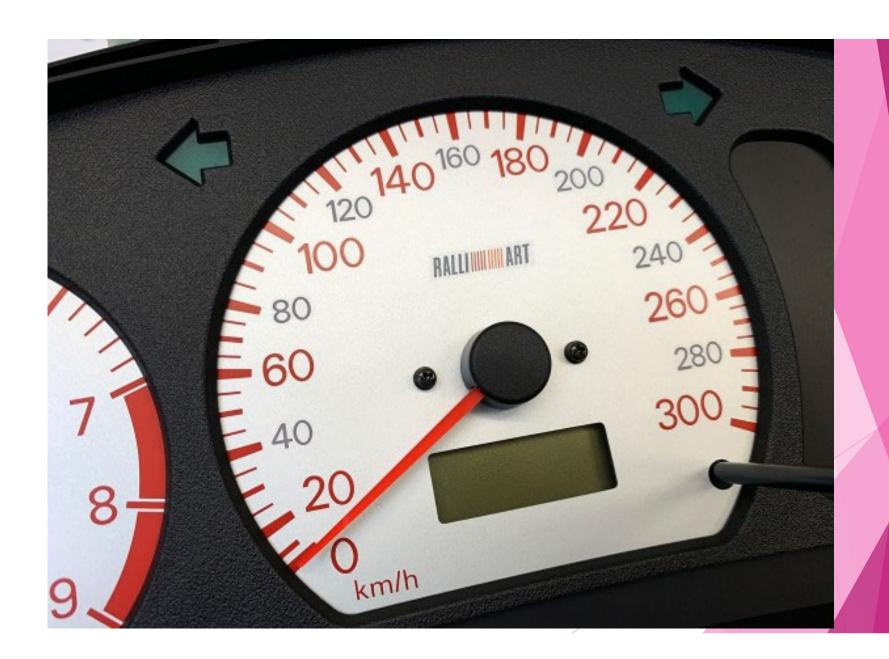
Engine Size

#### **EMISSION STANDARDS**

- ► Environmental Protection Agency (EPA)
  - In the United States, emissions standards are managed by the EPA as well as some U.S. state governments.
  - ► All vehicles sold outside of CA must meet Federal EPA emission standards.
- ► California Air Resources Board (ARB).
  - ► Regulates states emission standards.
  - ▶ The strictest standards in the world.
  - ► All vehicles sold new in California must meet these CA standards.

## Grey Market Vehicles

- Vehicle that was not designed for sale in the United States
- It does not meet US Federal Safety Standards (airbags or passive belt systems)
- Probably doesn't not meet Federal or California emission standards either.
- ▶ How do you recognize these vehicles?





### Identifying Grey Market Vehicles

- Vehicle Certification Label:
  - If the vehicle meets "Canadian Safety Standards for vehicle model year 2000" it is a Grey Market Vehicle.
  - ▶ If the speedometer is in kilometers
  - ▶ If the gauges are in liters
  - If the Vehicle Certification Label is printed in Arabic or some language other than English.
- Grey Market vehicles must be referred to the Referee for certification determination.
- ▶ If vehicle is certified by Referee, they will install a Referee label.
- This label supersedes the Emission Control Label on the vehicle.