



# **DATA RULES & POLICIES**

VEHICLE CONFIGURATION DATABASE (VCDB)

VERSION: 1.0

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### **Revision History**

Each time this document is modified, increment the version number appropriately and add a new row to the table below. In the Comments column, make sure to document the changes that were made and any deficiencies or outstanding issue the document may still have.

Revision Number	Revision Date	Author	Notes
1	9/12/2016		Initial draft
2	1/31/2020	Milt Grimes	Revision for newly added regions and equipment
3	6/1/2020	Milt Grimes	Revision for greater detail regarding the following: Body Type and Drive Type
4	7/6/2021	Milt Grimes	Revisions for newly added regions and systems cataloging
5	7/1/2024	Milt Grimes	Revisions to Regions, Model Name, Vehicle Type Group, Body Type and Bed Type Wheel Base section was added





## **Table of Contents**

	Overview	3
V	/Cdb Coverage	4
V	Cdb Vehicle Available Data Attributes	5
V	/Cdb Equipment Available Data Attributes	7
V	/ehicle Configuration Database (VCdb)	8
	Base Vehicle	8
	Vehicle	. 10
	Engine Base	. 10
	Engine Configuration	. 11
	Body Style	. 12
	Bed Type	. 15
	Brakes	. 16
	Class	. 16
	Drive Type	. 16
	Mfr Body Code	. 17
	Steering	. 17
	Transmission	. 17
	Wheel Base	. 17

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## **Overview**

VCdb Data Rules & Policies is an addendum to the ACES Technical Documentation. The goal of this document is to capture the many decisions and practices that govern the data values in the Vehicle Configuration database (VCdb). We aim to clearly explain the series of conditions that validate information before it is published as part of the standard. And, when exceptions are required or permitted, we shall explain the logic behind the management of the exceptions.

This document is dynamic and will be updated at regular intervals to reflect the evolving scope and role of the VCdb components.





# **VCdb Coverage**

Vehicle Type	Region	Year Range / Segment
Light Duty	USA	1896 – present
	Canada	1936 – present
	Mexico	1961 – present
	Argentina	1951 – present
	Belize	2023 – present
	Bolivia	1986 – present
	Brazil	1994 – present
	Chile	1973 – present
	Colombia	1974 – present
	Costa Rica	1960 – present
	Dominican Republic	1991 – present
	Ecuador	1990 – present
	El Salvador	2019 – present
	Guatemala	1960 – present
	Honduras	1999 – present
	Nicaragua	2017 – present
	Panama	1960 – present
	Paraguay	1986 – present
	Peru	1970 – present
	Uruguay	1960 – present
	Venezuela	1993 – present
PowerSports	USA	1920 – present
	Mexico	2006 – present
	Argentina	2016 - present
	Brazil	2016 – present
	Chile	2015 - present
	Colombia	2015 – present
	Guatemala	1981 – present
Medium / Heavy Trucks	USA	1941 – present
	Canada	1973 – present
	Mexico	1995 – present
	Argentina	2011 - present
	Brazil	2016 – present





	Chile	2013 – present
	Colombia	2014 – present
	Ecuador	2018 – present
	Guatemala	2017 – present
Equipment	USA / Canada	Agricultural
	USA / Canada	Construction
	USA / Canada	Engine
	USA / Canada	Industrial
	USA / Canada	Lawn and Garden
	USA / Canada	Marine
	USA / Canada	Power Generation

Updates in "Bold"

# **VCdb Vehicle Available Data Attributes**

Attribute Configuration	Attribute Table	Light Vehicle Pre- 1975	Light Vehicle 1975 - Present	Power Sports *	Medium / Heavy Duty
Vehicle	BaseVehicle	Y	Y	Y	Y
	Make	Y	Y	Y	Y
	Model	Y	Υ	Υ	Y
	VehicleType	Y	Υ	Υ	Y
	VehicleTypeGroup	Y	Υ	Υ	Y
	Years	Y	Υ	Υ	Y
	Vehicle	Y	Υ	Y	Y
	SubModel	Y	Υ	Υ	Y
	Region	Y	Υ	Υ	Y
Engine	EngineBase	0	Υ	Υ	Y
	Liters	0	Y	CC's Only	Y
	CC	0	Y	CC's Only	Y
	CID	0	Υ	CC's Only	Y





					PORTAL
	Cylinders	0	Y	CC's Only	Y
	Block Type	0	Y	CC's Only	Y
	Bore and Stroke	0	Y	CC's Only	Y
	Aspiration	0	Y	O	N
	CylinderHeadType	0	Y	0	N
	EngineDesignation	0	Y	0	Y
	EngineMfr	0	Y	0	Υ
	EngineVersion	0	Y	0	N
	EngineVIN	0	Y	0	N
	FuelDeliverySubType	0	Y	0	N
	FuelDeliveryType	0	Y	0	N
	FuelSystemControlType	0	Y	0	N
	FuelSystemDesign	0	Y	0	N
	FuelType	0	Y	0	Y
	IgnitionSystemType	0	Y	0	N
	PowerOutput	0	Y	0	N
	ValvesPerEngine	0	Y	0	N
Bed	BedLength	0	Y	0	N
	BedType	0	Y	0	N
Body	BodyNumDoors	0	Y	0	N
	BodyType	0	Y	0	Υ
Brake	BrakeABS	0	Y	0	N
	BrakeSystem	0	Y	0	Y
	FrontBrakeType	0	Y	0	N
	RearBrakeType	0	Y	0	N
DriveType	DriveType	0	Y	0	Y
MfrBodyCode	MfrBodyCode	0	Y	0	N
Spring	FrontSpringType	0	Y	0	N
	RearSpringType	0	Y	0	N
Steering	SteeringSystem	0	Y	0	N
	SteeringType	0	Y	0	N
Transmission	TransmissionBase	0	Y	0	N
	TransmissionType	0	Y	0	N
	TransmissionNumSpeeds	0	Y	0	N
	TransmissionControlType	0	Y	0	N





	TransmissionMfrCode	0	Y	0	N
	TransElecControlled	0	Y	0	N
	TransmissionMfr	0	Y	0	N
WheelBase	WheelBase	0	Y	0	N

Powersports vehicles have begun adding VCdb attributes into their model names. We will continue following this practice and will retain existing model names, however vehicle attributes contained in the model names will become an optional element and reference data and systems will be populated with this content.

# **VCdb Equipment Available Data Attributes**

Attribute Configuration	Attribute Table	Equipment
Equipment	EquipmentBase	Υ
	Mfr	Υ
	EquipmentModel	Υ
	VehicleType	Υ
	VehicleTypeGroup	Υ
	ProductionStart	0
	ProductionEnd	0
	Region	Υ
Engine	EngineBase	Υ
	Liters	0
	CC	Υ
	CID	0
	Cylinders	Υ
	Block Type	Υ
	Bore and Stroke	0
	Aspiration	0
	CylinderHeadType	0
	EngineDesignation	Υ
	EngineMfr	Υ





EngineVersion	0
EngineVIN	0
FuelDeliverySubType	0
FuelDeliveryType	0
FuelSystemControlType	0
FuelSystemDesign	0
FuelType	Υ
IgnitionSystemType	0
PowerOutput	0
ValvesPerEngine	0

# **Vehicle Configuration Database (VCdb)**

The Vehicle Configuration database (VCdb) is a standardized reference database to facilitate the management and exchange of any information that refers to a vehicle (on or off-highway) or equipment (motorized or non-motorized). The structure of the database ensures a high level of referential integrity and data validation. The rules governing the structure of ACES data files are intended to ensure the exchange of accurate, valid vehicle information files.

As an impartial and industry-sponsored arbiter of vehicle configuration data, the role of the VCdb is not to provide content about any specific vehicle. But it does standardize, and therefore clarify, the description of the vehicle which is the subject of the data content being exchanged. A standard reference table allows for faster and less costly integration of data content from multiple sources.

#### **Base Vehicle**

A Base Vehicle is comprised of a Year, Make, and Model and the Base Vehicle ID number is the primary method of identifying a vehicle for an application catalog file or other automotive data; such as service and repair information, maintenance intervals, fluid capacities, alignment specifications, OE parts information, Vehicle PARC data and more.

Year refers to the manufacturer's Sales Year for a particular vehicle. It is validated by the 10th digit of the Vehicle Identification Number (VIN) in the case of most North American light duty vehicles.

The VCdb does not address "split years" - these are annotated by a Qualifier statement in an ACES catalog file.





The Equipment and Systems data does not require a model year for cataloging applications, but does have optional fields for ProductionStart and ProductionEnd should they be needed to differentiate catalog applications.

Make Name is the Brand name under which vehicles are sold. For example, the VCdb lists Chevrolet and Buick – not General Motors. A Make Name may apply to vehicles in more than one Vehicle Type Group. For example, the Make Name "Honda" is used for Light Duty Cars and Trucks as well as Motorcycles.

Model Name is principally the original manufacturer's Badge name or Emblem on the vehicle. A secondary source of Model Name is the Original Equipment Manufacturer (OEM) marketing designation. Each Model Name is assigned one or more Vehicle Types (ie. Car, Truck or Van). For this reason, no reference to the vehicle Type is included in the Model Name. For example, an F-150 does not include "Pickup" in the Model Name because the Model Name record is linked to the Vehicle Type for Truck. The exception to this is when the same Year, Make, and Model Name are valid for a particular Vehicle Type Group and more than 1 Vehicle Type. For example, in 1980 Volkswagen marketed both a Rabbit pickup and a Rabbit car (both Light Duty vehicles). Therefore, the VCdb lists the pickup as Rabbit Pickup to offer unique Base Vehicles for VW in 1980 and avoid presenting Rabbit and Rabbit in a user interface that filtered on Year, Make and Model.

Model Name is intended to be faithful to the vehicle badge or marketing name and does not reflect the vehicle manufacturer's parts catalog or service sources. BMW occasionally appends a letter to their marketing model name in their Electronic Parts Catalog (EPC) and service information (T for Touring, A for Automatic Transmission and C for Convertible). However, there is no vehicle badged with 325iC and that Model is listed in the VCdb as a 325i with a Convertible Body Type.

In addition, there have been times when a vehicle manufacturer has either added or removed a space in their marketing model names and in some cases updated the order of the nomenclature within their model name. In these occurrences, we try to avoid having multiple versions of a Model Name when it is the same vehicle. In these cases we follow either the vehicle emblem or the most recent and/or popular version.

Distinct Model Names are used for vehicles from the same Make in a Model Year that do not share the same platform. For example, the Ford Explorer and Explorer Sport Trac do not share the same platform and are, therefore, distinct Model Names, contributing to distinct Base Vehicle records.

Vehicle Types are the specific class of vehicle assigned to each Model Name. Within the Light Duty Vehicle Type Group there are Car, Truck and Van Vehicle Types. The Medium/Heavy Trucks Vehicle Type Group has Medium/Heavy Truck, Motorhome/Recreational Vehicle and Multipurpose Military Vehicle Vehicle Types. The Equipment Vehicle Types are divided into multiple segments and each segment has multiple Vehicle Types available. This logic will be applied to Systems data as it becomes available for addition to the VCdb. There can be more than one Vehicle Type assigned to a Model Name.





Vehicle Type Group is a collection of related Vehicle Types useful in parsing the applications in the VCdb. There are currently ten (10) Vehicle Type Groups in the VCdb. Light Duty, Medium/Heavy Truck, Powersports and the newly added Equipment Segments (Construction, Agricultural, Engine, Industrial, Power Generation, Lawn and Garden, and Marine). The ability to catalog by Systems will be added to the VCdb by further expanding the Equipment segments to catalog Axles, Crate Engines, Trailers and Containers, Converter Dollies, Compressors, Tire Inflation Systems, Mechanical Refrigeration and Transmissions.

#### **Vehicle**

The Vehicle record introduces the Submodel and Region to Base Vehicles to produce Vehicle records. All other attributes in the VCdb are joined to the Vehicle table for valid configurations.

Region is the geographic Region of Intended Sale and the scope of the VCdb is currently the USA, Canada, Mexico, Chile, Colombia, Argentina and Brazil.

The VCdb includes vehicles imported or sold by the original manufacturers in a particular country. Grey Market or Independently Imported vehicles are not included in the VCdb. No Japanese Domestic Market (JDM) vehicles are valid in the VCdb.

Submodels are combinations of physical vehicle attributes grouped together by the manufacturer per a given Model. Industry sources will be surveyed to determine the most appropriate designation for a VCdb Submodel.

Packages are bundled optional equipment that can be applied to one or more Models and Submodels of the Vehicle. Nomenclature used by the OEM to identify such Packages, accessories, or interior trim levels will be minimized from being listed in the Submodel field.

## **Engine Base**

Engine Base is the minimum amount of meaningful information about the Engine in most applications. EngineBaseID is a valid tag in ACES catalog files that include engine-based applications.

For all Light Duty (car, truck, van) applications all fields of the Engine Base table are populated with information from OE sources.

For Medium/Heavy Truck vehicles, Engine Base may only include the Liter, CID, and Cylinders based on the availability of the vendor data.

For Powersports vehicles, Engine Base will only include the CC's.

For Equipment vehicles, Engine Base may only include CC's based on the availability of data.





Engine Displacement is expressed in Liter for all Light Duty and Medium/Heavy applications. When the Liter value from OE sources does not closely match the CC or CID displacement, the value from the badging on the vehicle may be used. For example, the Ford 302 CID engine calculates to 4.9 Liters. But, the vehicle is badged and commonly known as the 5.0. In model year 2005 and later, both the CID and the CC displacement are populated for Light Duty vehicles. Prior to 2005, the CID was populated for English-based vehicles (generally Domestics) and the CC was populated for Asian and European vehicles.

Engine Bore and Stroke is researched from OEM sources and calculated only as needed. Measurements are expressed to a minimum of one decimal points of precision or to a maximum of four decimal points of significant precision.

### **Engine Configuration**

The Engine Configuration is a valid factory-specified combination of engine attributes and is linked only to the vehicle applications where the Engine Configuration was valid and offered from the factory.

The Engine Designation Code is sometimes referred to as an Option Code or other technical designation from the OEM supplier.

For the Medium/Heavy Truck and Equipment vehicles, the Engine Manufacturer Number is captured in this table.

Engine VIN is the single character from the Vehicle Identification Number (VIN) when the OEM designates a VIN character to represent the engine.

Valves is the total number of intake and exhaust valves per engine.

Fuel Delivery Type consists only of two primary types – Carbureted or Fuel Injected.

Fuel Delivery Subtype is a secondary segmentation of the Fuel Delivery System – 4 Barrel Carburetor or Throttle Body Injection (TBI) are examples.

Fuel System Control Type is either electronically controlled by computer or mechanically controlled.

Fuel System Design is a further definition of the Fuel Delivery System and often includes reference to the original manufacturer - Rochester or Bosch, for example. The information is not provided by all OEM's.

Aspiration refers to the air intake system. . No accommodation is made for multiple Turbochargers on an engine.

Cylinder Head Type is designated by the vehicle manufacturer to describe the valve train configuration – DOHC (dual overhead cam) or OHV (overhead valve) are most common





Fuel Type is specified by the OEM. Hybrid vehicles include both Fuel Types - Electric/Gas or Electric/Flex, for example. Flex Fuel refers to E85 Ethanol blends. Plug-in Electric vehicles do not require other attributes reserved for internal combustion engines. The Chevrolet Volt is listed as a Hybrid because it has both a Gas Engine and Electric propulsion. Bi-Fuel designates a vehicle designed to switch between separate fuel delivery systems - Compressed Natural Gas (CNG) and Gas, for example. CNG, LPG or Bi-Fuel are only listed as the Fuel Type for vehicles so equipped from the factory. No allowance is made for aftermarket retrofits.

**Ignition Type** refers to the technology of the primary ignition system – With a Distributor, Distributorless (coil on plug) or Distributor-Breakerless (solid state), for example

The Engine Manufacturer is listed only for those engines when it is provided by the Vehicle Manufacturer

Engine Version refers to a Family of Engines as designated by the Manufacturer – EcoBoost, Cleveland and Windsor, for example

Power Output is represented in SAE Horsepower (HP) as specified by the OEM manufacturer and then converted to Kilowatts (Kw) by calculation. This field value is populated for European Makes only between 1985 and 2009. Power Output is published for all Light Duty applications 2010 and later. In the case of a Hybrid vehicle, the Power Output is the sum of the electric motors and the gasoline engine

## **Body Style**

Body Number of Doors is defined as the number of passenger entry doors – a hatch, liftgate or rear cargo door is not a door for passenger entry. For the Body Type "Stripped Chassis", the number of Doors is Zero.

Body Type is the generally accepted industry designation – not a marketing name or brand-specific designation. The Dodge "Mega Cab" is an Extended Crew Cab and the Nissan "King Cab" is an Extended Cab, for example.

Cars, Trucks and Vans are produced with a number of different body styles. Below is an explanation of these body styles.

#### Sedan

A Sedan has 2 or 4 doors, seating for 4 or more persons and a conventional trunk or a sloped back with a hinged trunk lid that opens upwards.

Examples of a Sedan include the Ford Fusion, Toyota Camry and Chevrolet Malibu.

### Coupe





A Coupe has 2 doors and a conventional trunk or a sloped back with an upward opening hinged hatch. Many Coupes have only 2 seats, but some offer a rear passenger seat with very tight quarters, also known as a "2 + 2". Some manufacturers like Mercedes-Benz and Volkswagen are getting creative in the classifying of their body styles and are marketing a "4-Door Coupe". This is nothing more than a 4 Door Sedan that has a sloped roofline to add a sporty look similar to a Coupe. These are classified as 4 Door Sedans, not a Coupe.

Examples of a Coupe include the Chevrolet Camaro, Ford Mustang and Audi R8.

#### Convertible

A Convertible is a car with a removable top. Convertibles are sometimes referred to as Cabriolets or Roadsters. This may be a removable hardtop, retractable hardtop or a retractable soft top.

Examples of a Convertible include the Miata MX-5, Ford Mustang and Nissan 370Z.

#### Hatchback

A Hatchback is a car with 2 or 4 doors, a sloped rear body and a hinged cargo door that opens upward. This "hatch" provides access to a cargo area in the rear of the car. This body style differs from a wagon in that the cargo area will be smaller due to the body behind the rear doors is shorter or more steeply angled.

Examples of a Hatchback include the Volkswagen Golf, Ford Focus and Fiat 500.

#### Wagon

A Wagon is similar to a Sedan, but offers additional cargo space behind the rear seat. Some Wagons will offer additional passenger seating with a third-row seat. The easier way to determine if a vehicle is a Wagon is that the roofline will continue past the rear doors. A Wagon will also have a rear liftgate, hatch, tailgate or door to provide access to the rear cargo area.

Examples of a Wagon include the Ford Flex, BMW 3 Series and Audi allroad.

#### **Sport Utility**

The Sport Utility (SUV) is traditionally a full sized truck based platform which is available as front wheel drive (FWD), rear wheel drive (RWD), 4-wheel drive (4WD) or all wheel drive (AWD). Over the years, the Sport Utility Vehicle has been available in smaller sizes and the platform is similar to a car. The body on frame construction is still available on the full size vehicles, while unibody construction is more common on the smaller versions. Sport Utility Vehicles are available in both 2 and 4 door versions with a liftgate or tailgate and generally have a higher ground clearance. A newer version of a Sport Utility has been added to differentiate the Sport Utility from the Sport Utility Coupe now offered on some models. Sport Utility Vehicles are also known as Crossover Utility Vehicles (CUV) or Sport Activity Vehicles (SAV).





Examples of a Sport Utility Vehicle are the Chevrolet Suburban, Ford Explorer, Honda Pilot, Dodge Durango and Jeep Cherokee

#### **Pickup**

The Pickup is available with 2, 3 or 4 doors and has an open cargo bed. Rear wheel drive (RWD), 4wheel drive (4WD) and all wheel drive (AWD) drivetrains are offered. Many body style configurations are offered with various cab styles, bed lengths and wheelbases. Pickups are offered in various sizes and cargo capacities.

Examples of a Pickup include the Ford F-150, Chevrolet Silverado, Ram 1500, Toyota Tacoma and Nissan Frontier.

Pickup trucks have been produced with a number of different configurations or body styles. Below is an explanation of these cab types or body styles.

For the most part, there are three basic cab configurations. First is the standard cab, which typically has a bench seat and two traditional doors. You won't find any special names, like Club Cab or Quad Cab, for this utilitarian setup, but you will for the other two. Up next is an extended cab version that has two traditional full-sized doors and two mini doors. Finally, there is the four-door cab configuration that has four regular-sized doors.

#### **Standard Cab Pickup**

A Standard Cab Pickup has a single row of seats and a single set of doors, one on each side.

Other commonly used names: Regular Cab

#### **Extended Cab Pickup**

Extended Cab Pickups add an extra space behind the main seat. These originally had only two doors and access was gained to the rear seat by tilting the front seat forwards. More recent extended cab pickups have featured rear hinged, rearward opening doors on one or both sides for access. The third variation of the extended cab is the front hinged, forward opening door that is less than a full-size door. This will have an outside door handle like the crew cab, but the door is smaller in size.

Other commonly used names: Club Cab, Double Cab, King Cab, Super Cab, Cab Plus, Quad Cab and Access Cab

#### **Crew Cab Pickup**

A true four-door pickup is a Crew Cab Pickup. It features four full-size, forward opening doors.

Other commonly used names: Crew Max and Super Crew





#### **Extended Crew Cab Pickup**

The Extended Crew Cab Pickup is true four-door pickup with added space in the passenger compartment, usually behind the rear seat. It features four full-size, forward opening doors.

Other commonly used names: Mega Cab

#### Van

The Van is a large box shaped vehicle that is used transport people or cargo. It is available in many different configurations with 2, 3 or 4 doors. Cargo doors are usually found in the rear of the vehicle. The side passenger doors can be hinged or sliding doors. Cargo Vans will have no side windows, while a passenger Van will have side windows. Most full size Vans are rear wheel drive (RWD), but 4-wheel drive (4WD) is sometimes an option.

Examples of a Van include the Ford E Series and Transit, Chevrolet Express, Mercedes-Benz Sprinter and Ram ProMaster.

#### Minivan

The Minivan is a smaller version of the full size Van. It is generally a unibody design and is available in both cargo and passenger versions. Minivans are offered with front wheel drive (FWD), rear wheel drive (RWD) and all wheel drive (AWD). Several different passenger door configurations and rear cargo doors or liftgates are available. Passenger vans will typically have side and rear windows, while cargo vans will have no rear windows.

Examples of a Minivan include the Dodge Caravan, Honda Odyssey, Ford Transit Connect and Toyota Sienna.

The addition of the Body Type for Medium/Heavy Trucks has introduced the compound Body Type into the VCdb due to the different Cab Configurations available for a single Body Type (Tractor Truck – Long Conventional and Tractor Truck – High Tilt are 2 examples)

### **Bed Type**

Pickup beds are offered in 2 basic styles, Fleetside / Styleside and Flareside / Stepside. The Fleetside / Styleside beds are slabsided beds where the pickup box extends over the rear wheels offering greater cargo space. Styleside has been consolidated under a single term of Fleetside. The Flareside / Stepside beds offer a squarer, more narrow pickup box with the rear wheels outside of the bed and covered by fenders. Flareside has been consolidated under a single term of Stepside. The bed types consolidated were based on Make nomenclature and there is no physical difference between the two.





In addition to these 2 basic styles, Stake Bed, Fold-Out Side Walls, Flat Platform and Box have been added as valid Bed Types to accommodate the multiple Bed Types offered for different vehicles.

The N/R Bed Type is used for all cars and vans. It is also used when there is a Cab & Chassis Body Type available on a vehicle and it is also used on Trucks where a Pickup Body Type has a bed-delete option when a vehicle is ordered from the vehicle manufacturer.

#### **Brakes**

2-Wheel ABS Brake System is defined as ABS on the Front and non-ABS on the Rear.

#### **Class**

A vehicle's Class is listed as 1-8 and is determined by the Gross Vehicle Weight (GVW) of the Vehicle.

Class	Weight Ranges	Vehicle Classification
1	0 – 6,000	Light Duty
2	6,001 – 10,000	Light Duty
3	10,001 – 14,000	Light Duty
4	14,001 – 16,000	Medium Duty
5	16,001 – 19,500	Medium Duty
6	19,501 – 26,000	Medium Duty
7	26,001 – 33,000	Heavy Duty
8	33,001 and up	Heavy Duty

## **Drive Type**

**Drive Type** is the generally accepted industry designation – not a marketing name or brand-specific designation. The Jeep "Command-Trac" system will not be captured in the VCdb as this is a 4WD system.

Light Duty vehicles may have the following drive types: 4WD / AWD / FWD / RWD.

4WD and AWD are sometimes used synonymously by vehicle manufacturers in their marketing literature. In regards to the VCdb drive type, we do not always follow the way a vehicle is marketed regarding drive type like we do with Model and Submodel names. Our method for determining a vehicle's drive type is if the vehicle controls the traction to each of the 4 wheels (in any of the available modes), we consider that an AWD system. If the driver controls whether the traction is going to all 4 wheels (in any of the available modes) or only 2 wheels, we consider that a 4WD system.

The Medium/Heavy Truck market utilizes a different methodology of describing the drive type of a vehicle. Medium/Heavy Trucks utilize a numeric combination of the total number of wheel positions by the drive wheel positions.





Examples include: 4x2 / 4x4 / 6x2 / 6x6 etc.

## **Mfr Body Code**

The Manufacturer Body Code is an OEM designation of the chassis or vehicle platform.

## **Steering**

Steering Type "Gear" is also known as Recirculating Ball. "Rack" is Rack and Pinion.

### **Transmission**

A Transmission is arranged longitudinally in the vehicle. A Transaxle includes the differential. A Continuously Variable Transmission (CVT) is listed with the number of Speeds as (N/R - Not Required) the Nissan Quest is an example. Transmission Control Types are: Automatic, Manual, Automatic CVT or Automatic Dual Clutch. Clutchless Manual Transmissions are listed as Manual.

Electric Drive Vehicles may specify 1-speed Transmission.

## Wheel Base

Wheel Base is populated with valid values on Trucks and Vans. Wheel Base is populated with "-" which is the default value for this table.