

**Technology Standards Committee
Parts Classification Database Task Force**

Rules and Policies Governing the PCDB

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Purpose

The Parts Classification database (PCDB) is an industry-specific, coded, hierarchy of product terminology intended to support the efficient exchange of electronic catalog and product information in the vehicle aftermarket

Use Case

The PCDB Part Terminology code is a required field in every application record of an electronic catalog file in the ACES format. This data element serves to classify and identify what part type is the subject of the application catalog record.

The PCDB Part terminology code is also a required data field in every product information item record in the PIES format.

Scope

The Parts Classification database (PCdb) supports the exchange of all electronic catalog data (application parts) as well as all application and non-application product attribute information in the vehicle aftermarket. The PCdb supports data exchange between aftermarket trading partners. Therefore, the **PCdb must include any product categories and types that may be traded by aftermarket parties**. For this reason, the scope of the PCdb includes automotive parts and supplies, heavy duty components, tools and equipment, specialty parts, accessories and components, non-application parts, supplies and accessories, appearance products, functional fluids and chemicals – virtually any product that may be stocked or traded in the aftermarket industry.

As a Classification Hierarchy, such things as performance and physical attributes, grade, quality or construction of a product are outside the scope of the Part Terminology table, and are addressed by other standards or methods. In 2011 AAIA initiated a project to define product specific attributes as an extension of the PCDB. This document will be amended to reflect that extension when the initial phase of the project is complete.

Structure

The PCDB is delivered as a fully normalized relational database in several technical formats. The hierarchy includes a number of high-level **Categories**; a number of mid-level **Subcategories**; a table of **Part Terminology** names; and a table of valid **Positions**. Parts and Positions are validated to a Category and Subcategory in the **CodeMaster** table.

The database is updated twice each month in response to user petitions for added part types and positions. The table: **PCdbChanges** itemized the new records added since the previous version.

Technology Standards Committee

Parts Classification Database Task Force

Field Definitions

Categories (CategoryID and CategoryName) – PCdb Categories are a logical collection of related vehicle components that perform together as a system or a top-level classification of similar non-application products. For example, Cooling System or Tools and Equipment

Subcategories (SubCategoryID and SubCategoryName) – PCdb Subcategories are vehicle assemblies or subsystems related to a single high level Category, and intermediate classification of related non-application products. For example, Water Pump and related Components or Tire Service Tools

Part Terminology (PartTerminologyID and PartTerminologyName)– Part Terminology defines the most granular product classification of vehicle parts and components as well as all other non-applications parts, supplies, accessories, components and consumables traded in the vehicle aftermarket industry. For example, Water Pump Pulley or Tire Valve Stem Replacement Tool

Position – The Position data element is only referenced in an ACES catalog application record. The field refers to the position of a part or component, from a forward-facing view, relative to others of the same part type on a vehicle. For example, Left Front for Brake Caliper or Inner for Wheel Bearing.

Position N/A – The default Position value for all Part Terminologies is N/A (not applicable). This is the appropriate Position when:

- 1) there is only one instance of the part type in the application or
- 2) when multiples of the same part type are symmetrical and there is no need to differentiate the position of one from another of the same part type.

It is possible for a Part Terminology to have one or more valid positions and for N/A to be valid. It depends on how the part is engineered to the vehicle Examples

<u>Part Type</u>	<u>Quantity per Car</u>	<u>Position</u>	<u>Explanation</u>
Water Pump	1	N/A	There is only one on the vehicle
Brake Caliper	1	Left Front	There is only one LF Caliper
Brake Caliper	1	Right Front	There is only one RF Caliper
Spark Plug	4	N/A	The position of one Plug to the next is irrelevant

This definition may change or expand based on the way we ultimately address multi-purpose parts.

Data Relationships

Every Part Terminology record is associated with only one Subcategory which is in turn associated with only one Category

No Part terminology shall be orphaned or left without a Subcategory and Category relationship

No Part Terminology shall have more than one Subcategory and Category relationship

Any Part terminology may have one or more Positions associated with it, in addition to the N/A Position

The database schema allows for a Part Terminology record to be associated with only one Category and Subcategory. This does not limit users of the database in listing parts

Technology Standards Committee
Parts Classification Database Task Force

under multiple categories in their user interface. The standard does not impose limits on “presentation” of content – merely on the standardized classification of terminology.

Syntax & Rules

Independent Terminology – A Part Terminology record must be self-describing and not dependent on its relationship to a Category or Subcategory for context or uniqueness. For example, the table includes Manual Transmission Rear End Seal – not Rear End Seal – because Rear End Seal would not be unique across all transmission types

Case – All entries in the PCdb are Title Case – with the first letter of each word capitalized

Technology Standards Committee Parts Classification Database Task Force

Redundancy – The PCdb includes one unique Part Terminology record for each item in the database. The PCdb does not include brand-specific references or jargon. The PCdb does not include alias or alternative terminology. As a reference coding table, the PCdb includes a single unique record of each part type – not an exhaustive list of alternative terminology

A test of redundancy would be “Interchangeability” – if two part types can be substituted one for the other in a typical application they are redundant and only a single part type shall be listed in the database. For example, A new and remanufactured starter of the same type can be substituted on an application. Therefore the part listing should be for Starter Motor. However, a Master Cylinder (only) cannot be substituted for a Master Cylinder w/ Reservoir on an application. Therefore, both are valid part types and should appear in the Parts Terminology database

Consistency – Terminology of similar part types should be classified consistently throughout the database. For example, all Brake Hardware part types should be classified in the Subcategory: Brake Hardware, Category: Brake

Abbreviations – Commonly used abbreviations are widely used in commerce and recognized in the automotive industry. AAIA has a standardized and recognized list of acceptable abbreviations as part of the ACES documentation packet. These are the only abbreviations approved for use in the PCdb

Acronyms – Acronyms are acceptable for use in the PCdb when they are: a) widely used and recognized by most in industry b) refer to the generic (not brand-specific) part terminology and c) are used consistently throughout the PCdb for the same part type. For example, EGR is approved for reference to Exhaust Gas Recirculation provide it is used consistently for EGR Valve, EGR Valve Gasket, EGR Valve Flange, etc.

Multifunction Parts – A Multifunction Part is a single physical item that may be used in more than one way on one or more vehicles. The PCDB is used by some as the classification hierarchy for automotive catalog application data. In this use, it is important to classify Multifunction Parts and components exactly as they are used on a vehicle.

In discussion three (3) alternatives emerged:

1) Leave the PCdb the way it is today with most multi-function parts enumerated for their various uses on a vehicle

2) Include in the Part Terminology table both the specific uses and the generic part description

3) Include in the Part Terminology table only the generic part description and assign the specific uses to the Position table

Alternative Use Cases:

A particular Relay may be used in more than one way on a particular vehicle. But the Relay must be classified for each and all of the ways it is used in order to support the electronic catalog look-up of that relay by it use. For example, Wiper Motor Relay; Window Lift Motor relay; Horn Relay are all valid Part Terminologies

... or ...

For multifunction parts the PCDB includes the Generic Part Type name and links the valid Positions as the specific uses. For example, the Generic Part, Gas Lift Support would have Trunk, Hood and Rear Hatch as valid Positions for the Part Type (see the examples added to the PCDB Task Force worksheet)

Technology Standards Committee Parts Classification Database Task Force

In the use of the PCDB Part Terminology to support a PIES record of product attribute data, the application of a Multifunction part is not the subject of the record. For this reason the generic form of the Part Terminology is appropriate for use – Multifunction Relay, for example

Use of Position / Location – Reference to a position should only be part of the Part Terminology name when it is an integral component of the name and helps define an item that is found in only one location in all applications. For example, Rear Deck Cover can include the word “Rear” because there is no Deck Cover found anywhere else on any application and the word “Rear” is essential and commonly used to clarify the name of the vehicle component

Position Descriptions – Position Descriptions are used to clarify the exact location of a particular part application when the same part type may be used more than once on a vehicle. Positions always refer to a **forward-facing perspective**. For example, it is helpful to indicate the Part#1 is the *Left Front* Disc Brake Caliper and Part#2 is the *Right Front* Disc Brake Caliper

Prohibited Content in Part Terminology – The Part Terminology name should not include extended information that is conveyed in other elements of either ACES or PIES. Examples of prohibited content include:

- **OE Manufacturer references** - A/C O-Ring Green - Ford FX15 Compressor Ports
- **Aftermarket Brand references** - Kicker Shock Bracket Kit - Rear – Rancho
- **Product Attribute references** - A/C Compressor & Component Kit - New
- **Application Segment references** - Intermediate Unit Bushing – Marine
- **Position references** - Headlight Bezel Set - Right Front
- **Product Material references** - A/Trans Kit, Sealing Ring (Teflon)
- **Product Construction references** - Oil Bath Seal - Scotseal - Front - L/D Truck
- **Size references** - Exhaust Pipe Extension 5'
- **Color references** – Mud Flap, Black

Change Request Petitions – Only ACES subscribers are eligible to make online change requests and petition for new Part Types and Positions in the PCdb. Others should submit their requests to aces@aftermarket.org for consideration. The interface is found at www.enhancedstandard.org and approved changes are published every two weeks.