

KES

Part Structure Representation

KES N-J001

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I GENERAL

1. Purpose

This standard is intended to define the system of automotive parts and the structure representation methods aiming at supporting establishment of the correct part structure.

2. Scope of Application

This standard applies to the part structure establishing practices for the production preliminary and final stage vehicles(preliminary/final), not for the prototype vehicles(comparison lists, individual prototype structure, prototype stage structure).

3. Definition of Terms

- 1) Part structure is the representation of next assembly relationship and quantity for all parts based on the functional classification.
- 2) Next-assembly part is a part directly above a part.
- 3) Component part is a part directly below a part.
- 4) Quantity (or Quantity for next-assembly part) is the quantity of a part required for one unit of its next-assembly part.
- 5) Option part is a part selectable when producing a vehicle.
- 6) Function is the system of parts classified from the design point of view.
- 7) Soft group parts are parts assembled at vehicle assembly plants.
- 8) Hard group parts are parts assembled at any of engine, transmission, axle, and body assembly plants.
- 9) Complete assembly is a parts group fulfilling a function.
- 10) Equip number is a summary number for a set of parts for identifying the used location for the parts.
- 11) Assembly number is the number for a part comprising more than a part.
- 12) Detail part is the lowest level part in the component structure.
- 13) Shipping part is a part conveyed between a vendor and KIA, between a vendor and another, or between plants in KIA.
- 14) Service part is a part shipped to domestic or overseas dealers or vendors for service.
- 15) Vendor part detail is a component part of vendor part.
- 16) Self-procured part is a part procured by vendors.
- 17) Drop shopped part is a part supplied to vendors by KIA.
- 18) Kit number in group 84 is a summary number to represent the structure subtracting hard group parts from the standard structure and adding the corresponding parts.

II DETAILS

1. System of Structures

1-1 Group structures: Groups shall be classified by function and assembly plant, and be represented as follows:

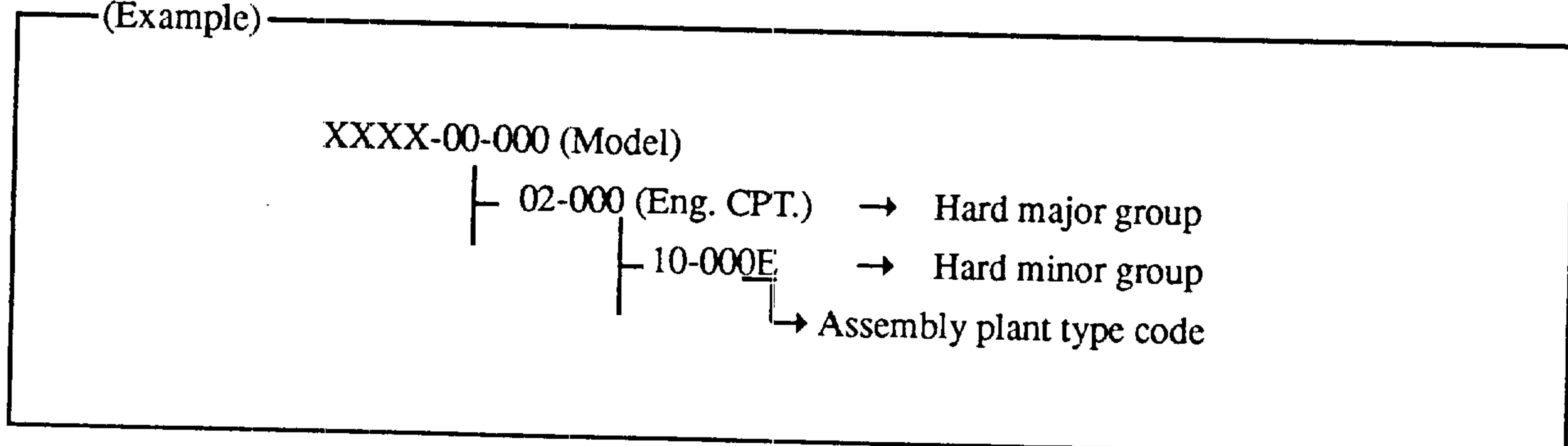
1-1-1 Group codes shall be represented in the form of XX - 000X (e.x. 10 - 000E), where the last character X denotes an assembly plant type, as shown below.

Description of Assembly Plant Codes

Code	Alphabetic Characters							Numeric Characters /Blank
	A	B,L,M,N	C,S,V,W	E	Z	Y	K	1,2,3,....
Description	Engine /trans. mating	Trans. assembly	Body assembly	Engine assembly	Out-side assembly	CKD	Over-seas	Vehicle assembly
	Assembly plant type							Function type

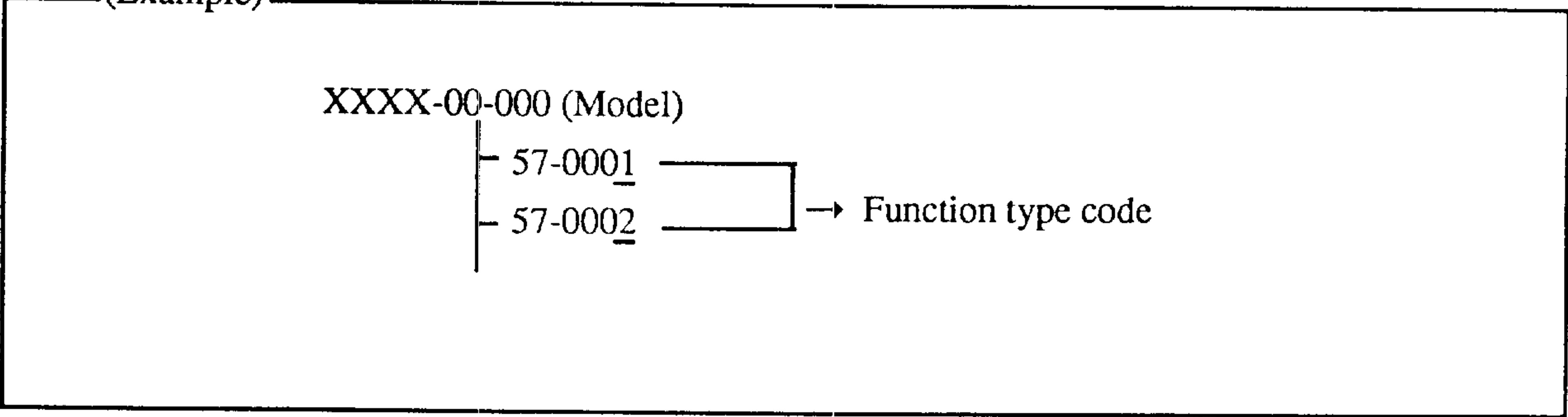
1-1-2 In case of hard groups: Hard major groups shall be established directly below a model, and hard minor groups directly below the hard major groups.

(Example)



1-1-3 In case of soft groups: Soft group shall be established directly below a model.

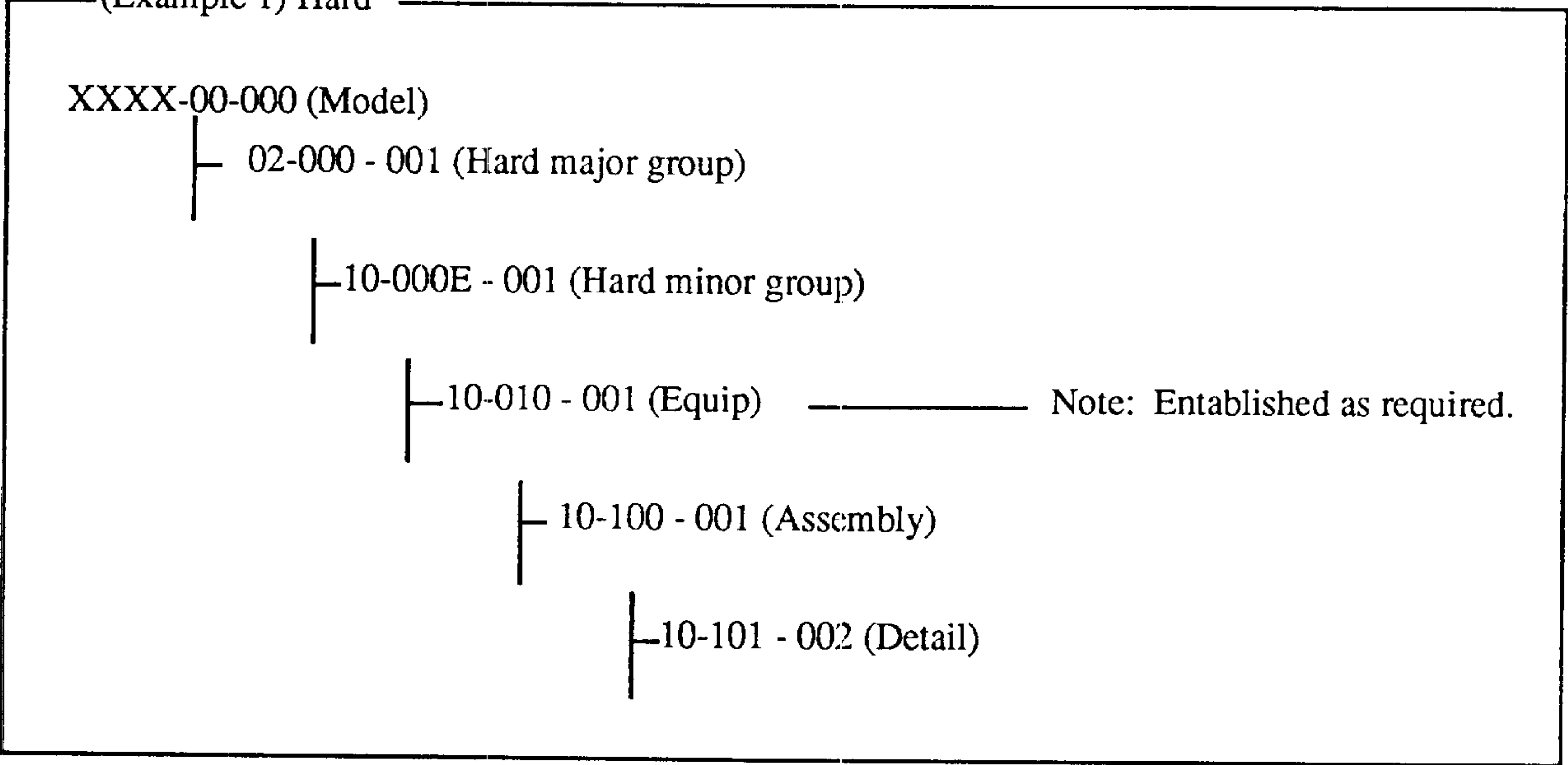
(Example)



Note: For component parts in each group, see Appendix "Standard Group Structure."

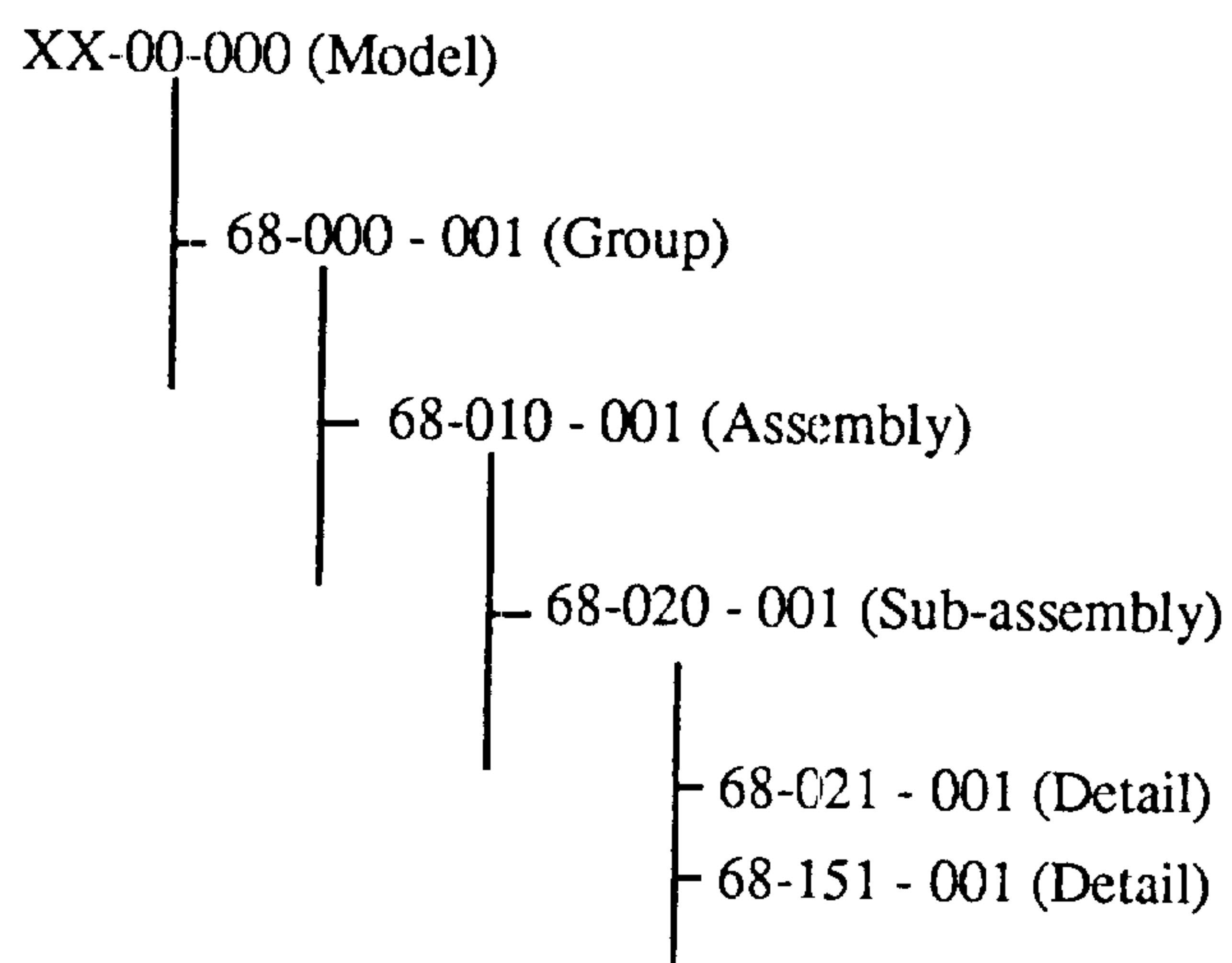
1-2 Part structure: Part structure shall be represented by linking the parts below the group structures based on the assembly chains, as shown below
(Next-assembly part) - (Part) - (Quantity) - (Option part indicator)

(Example 1) Hard



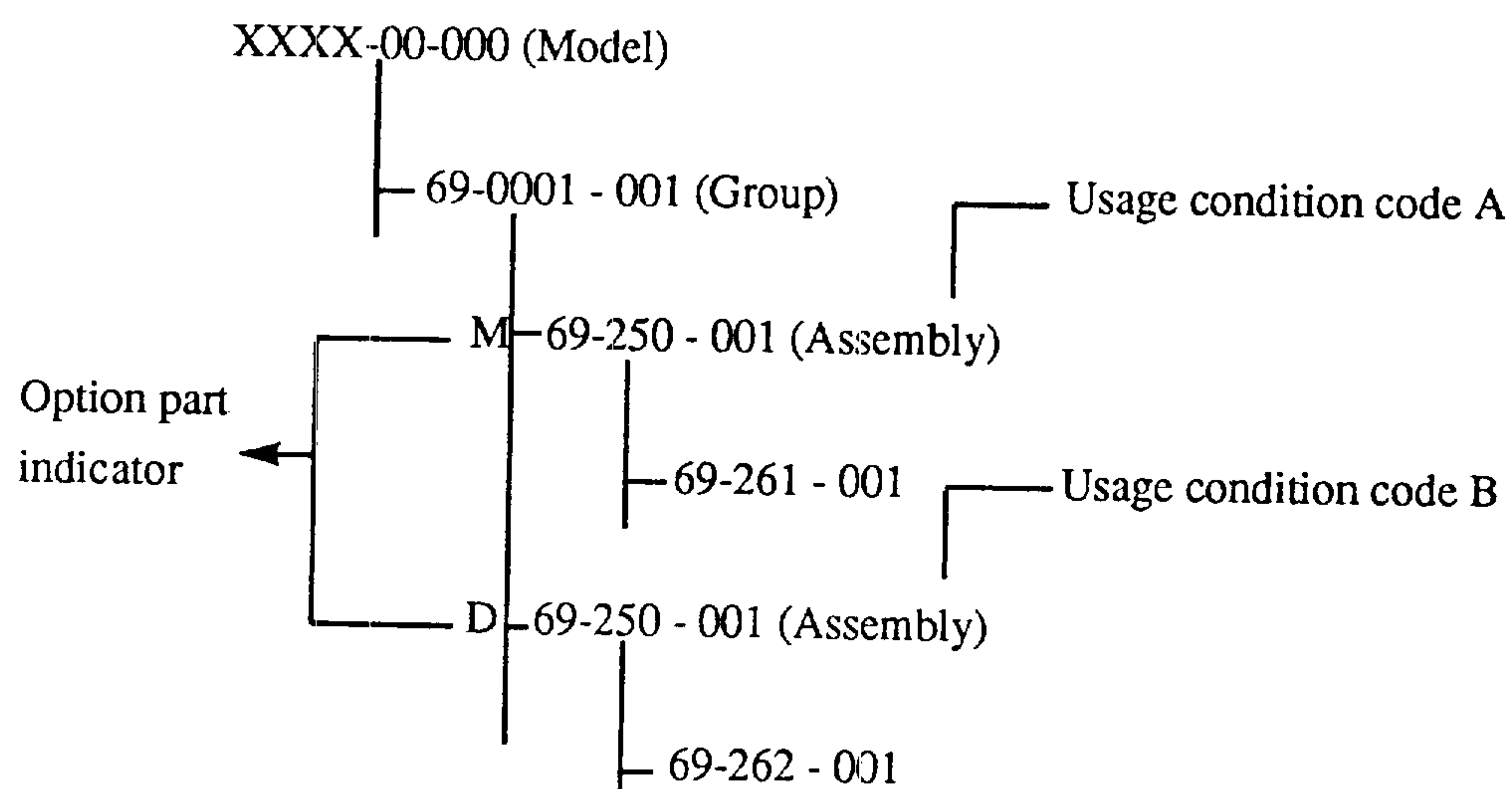
(Example 2) Soft (In the case of non-option parts)

Parts shall be established below groups established directly below a model based on the functional classification.



(Example 3) Soft (In the case of option parts)

Option parts shall be established directly below groups established directly below a model based on the functional classification.



2. Part Structure Representation

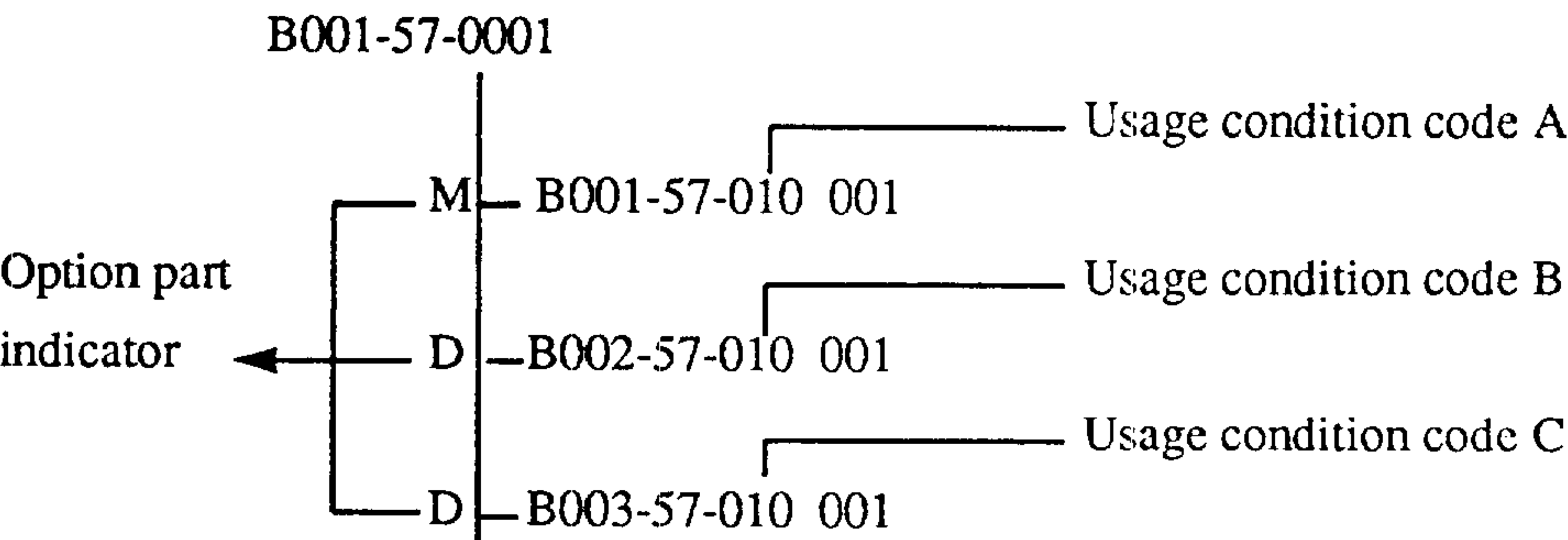
2-1 Types of option parts		[Representative][Optional]
1) Option	---- (Option part indicator	[M] , [D])
2) Color option	---- (Option part indicator	[L] , [H])
3) Vendor option	---- (Option part indicator	[J] , [K])
4) Alternate option	---- (Option part indicator	[2]) → Adjustment indicator identifies representative or optional.
5) Quantity option	---- (Option part indicator	[3])
6) Installation/alternate option	---- (Option part indicator	[5])

2-2 Structure representation of option

- 1) Option parts shall satisfy the following requirements:
 - a) Soft group part (i.e. A part installed at vehicle assembly plants).
 - b) When a hard group part is exceptionally handled as an option part, it shall be approved in advance by the activities concerned.
 - c) Option parts shall be established directly below the groups.
 - d) Parts of the same function as an option part shall be option parts in the same base specification.
 - e) Parts of the same function as an option part shall have the same part base numbers. The quantity shall be one (001) at the same time.

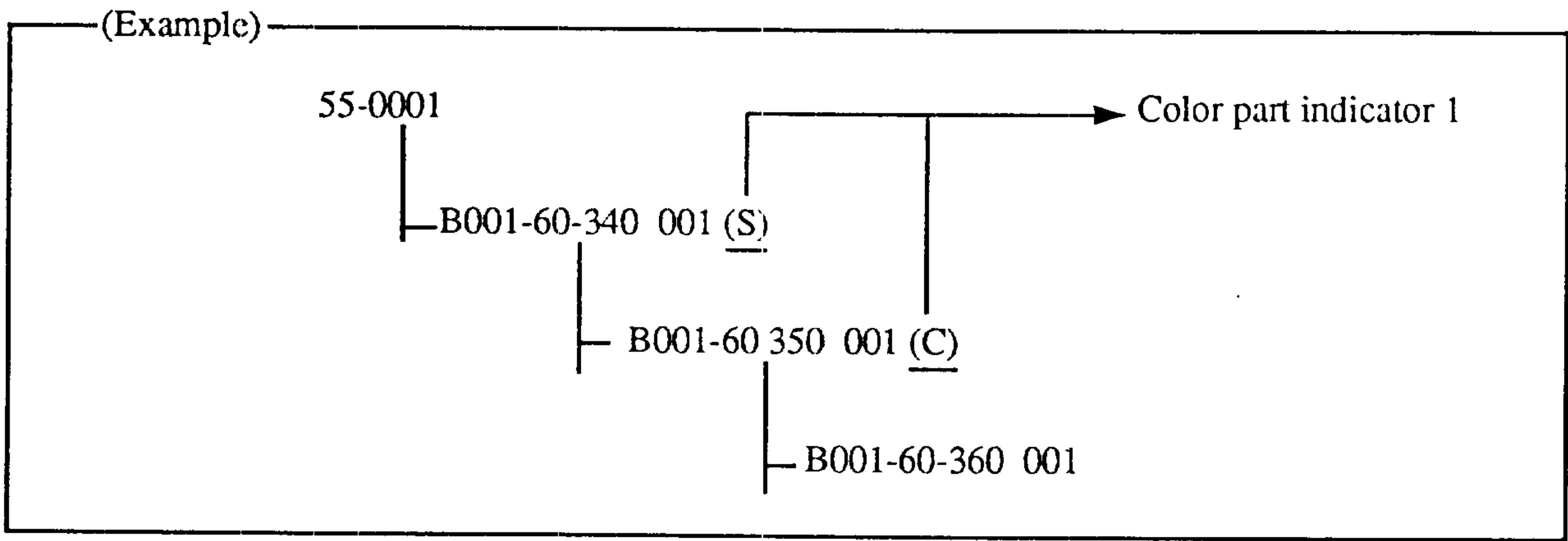
(Example)

In the representation of option parts, as shown below, option part indicator [M] shall be set for a representative option part (i.e. an option part having the highest installation rate at establishment), and [D] for the other option parts, where any of the option parts has usage condition codes.

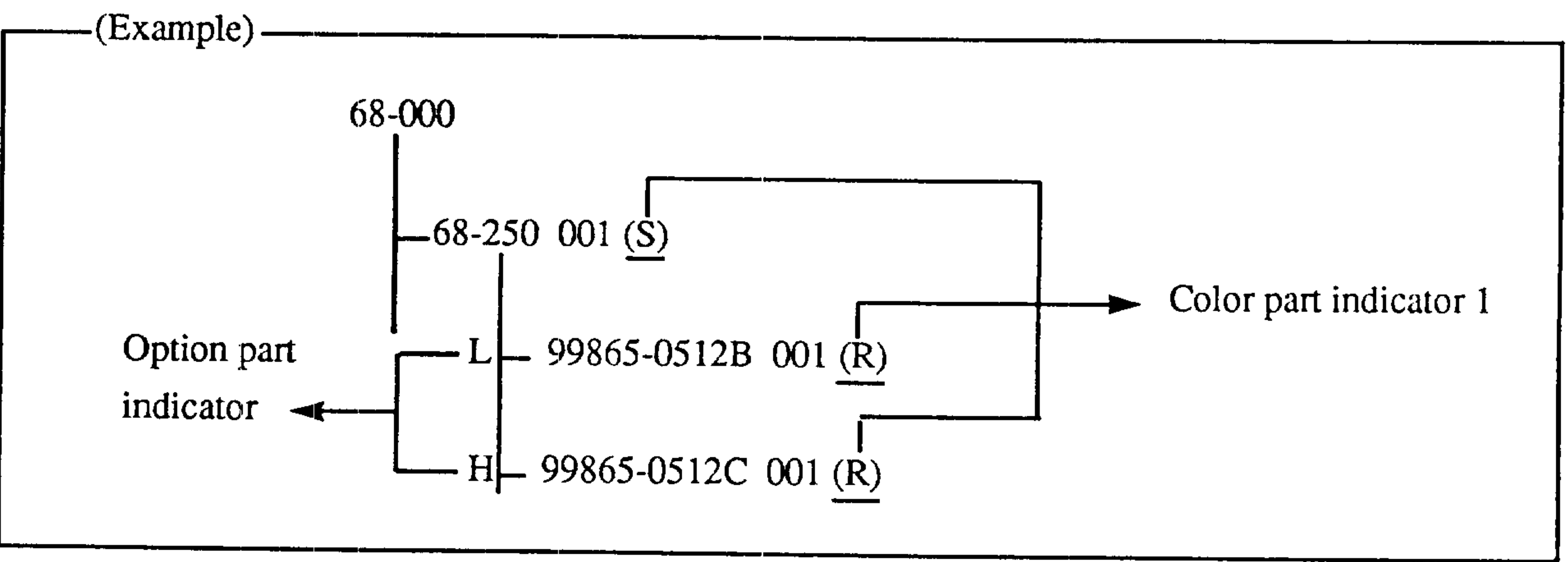


2-3 Structure representation of color option part

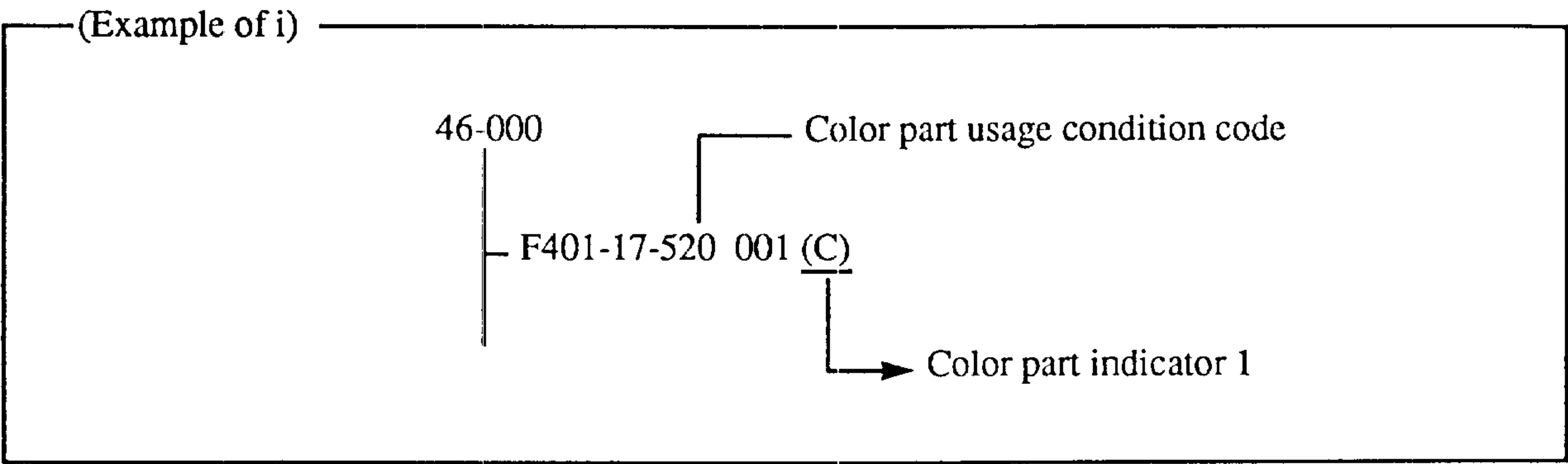
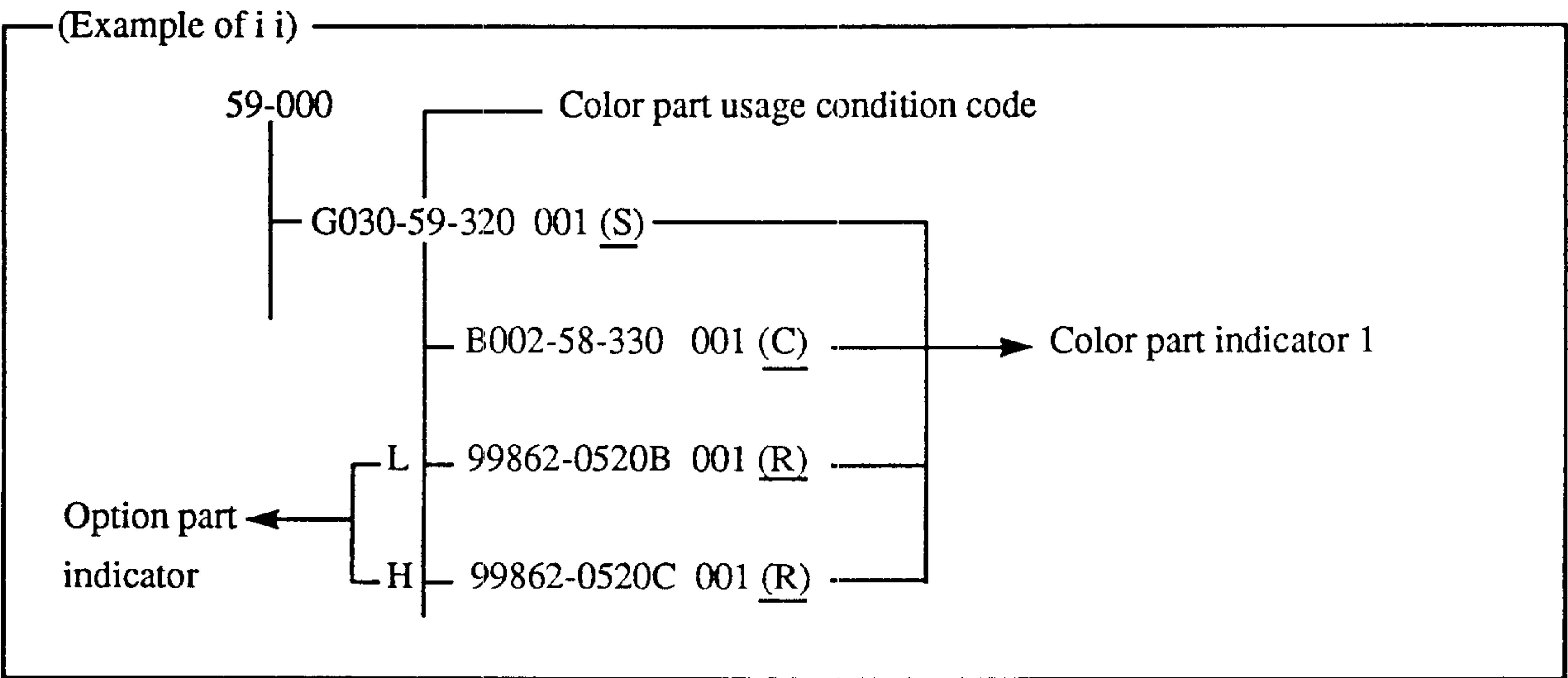
- a) The mark [C] shall be established in the color part indicator 1 for shipping or service parts, and [S] for their next-assembly parts up to the level directly below groups.



- b) The mark [R] shall be established in the color part indicator 1 for color option parts. The option part indication [L] shall be established for a representative color option part, and [H] for the others.



- c) When a color part or color option part is a model part, it shall have a color part usage condition code.
- i) When a color part is established directly below groups, the color part shall have a color part usage condition code.
- ii) When a color part or color option part is not established directly below groups, a color part usage condition code shall be established for the part number directly below groups which includes the color part or color option part.
- iii) Quantity per a vehicle for the part which has a color part usage condition code shall be always one (001).

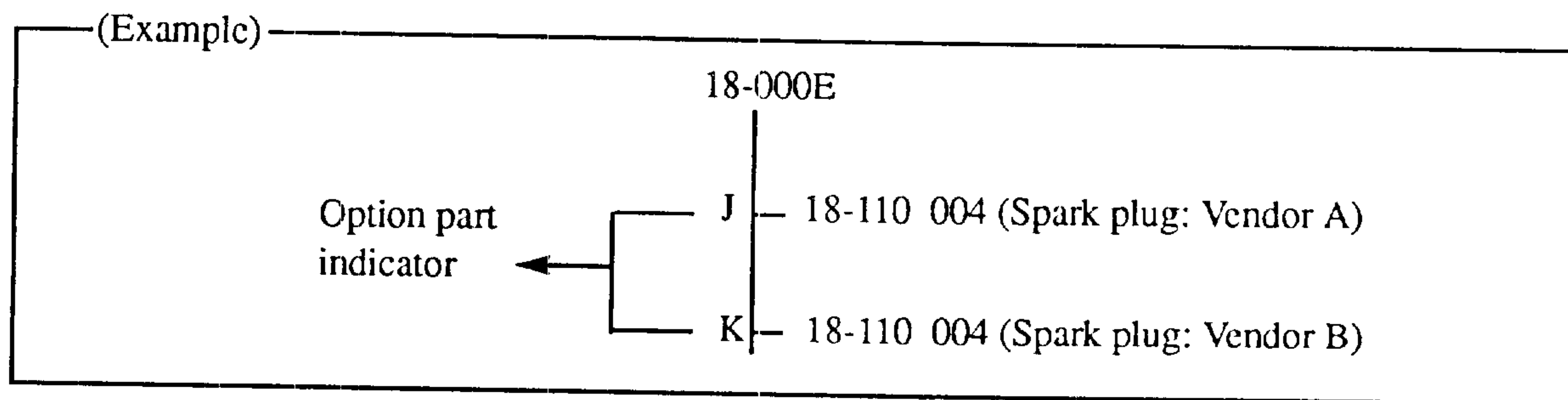


2-4 Structure representation of vendor option part

- a) When a vendor option part is a model part (i.e. part other than option parts), it shall be represented as follows:
 - i) Vendor option part shall be established in parallel (i.e. on the same level) below the same parent part. The vendor option parts may be on any level.
 - ii) The mark [J] or [K] shall be established in the option part indicator for the vendor option parts.

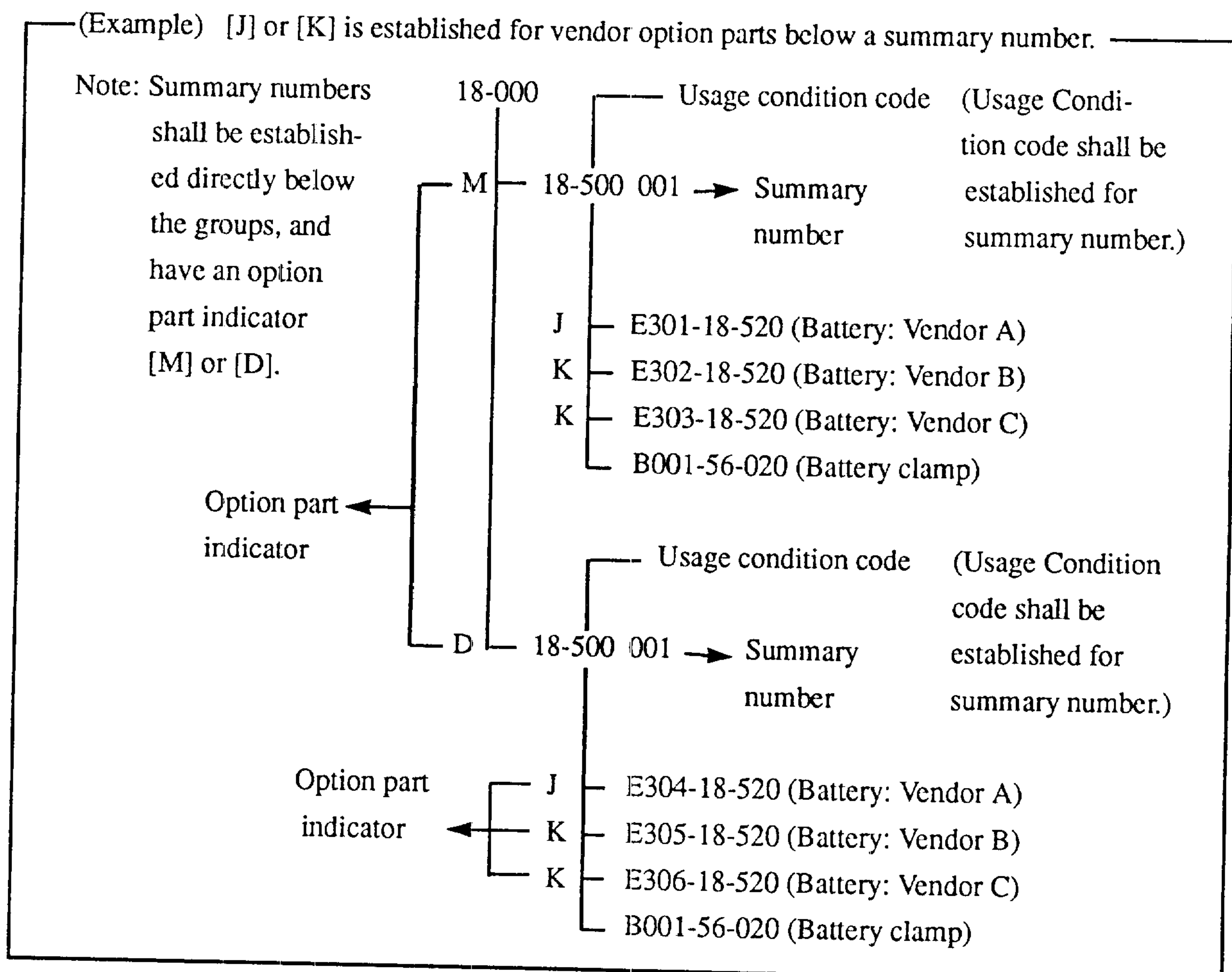
Method of Establishing Option Part Indicator J or K

Establish the option part indicator [J] to any one of vendor option part, and [K] to the others.

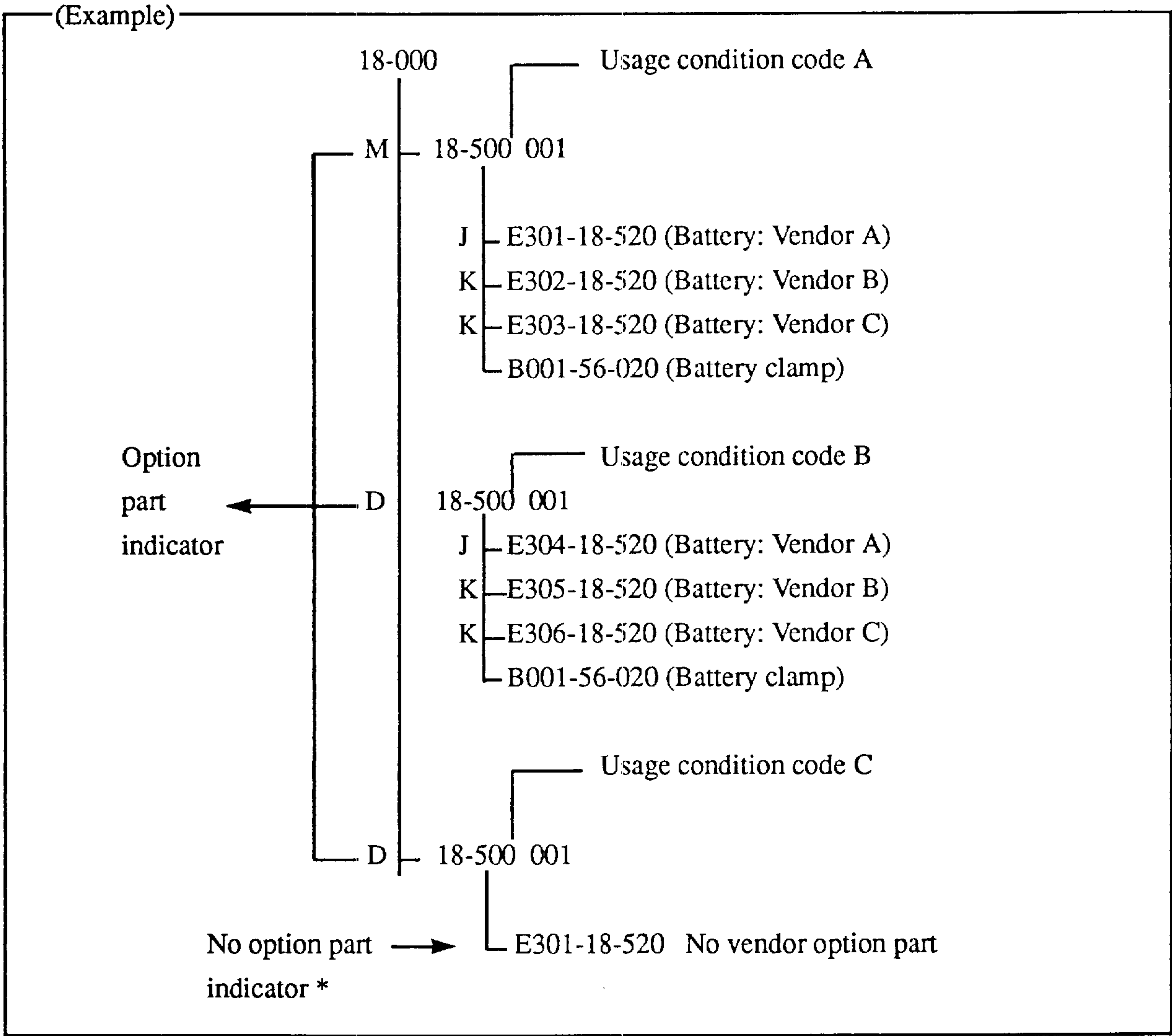


b) When vendor option parts are option parts (option part indicator M or D), the structures shall be represented as follows:

i) A summary number shall be established below the groups for each base specification. Then the vendor option parts shall be established in parallel(i.e. on the same level) below the summary numbers. (The summary numbers may include in their structures parts other than the vendor option parts.)

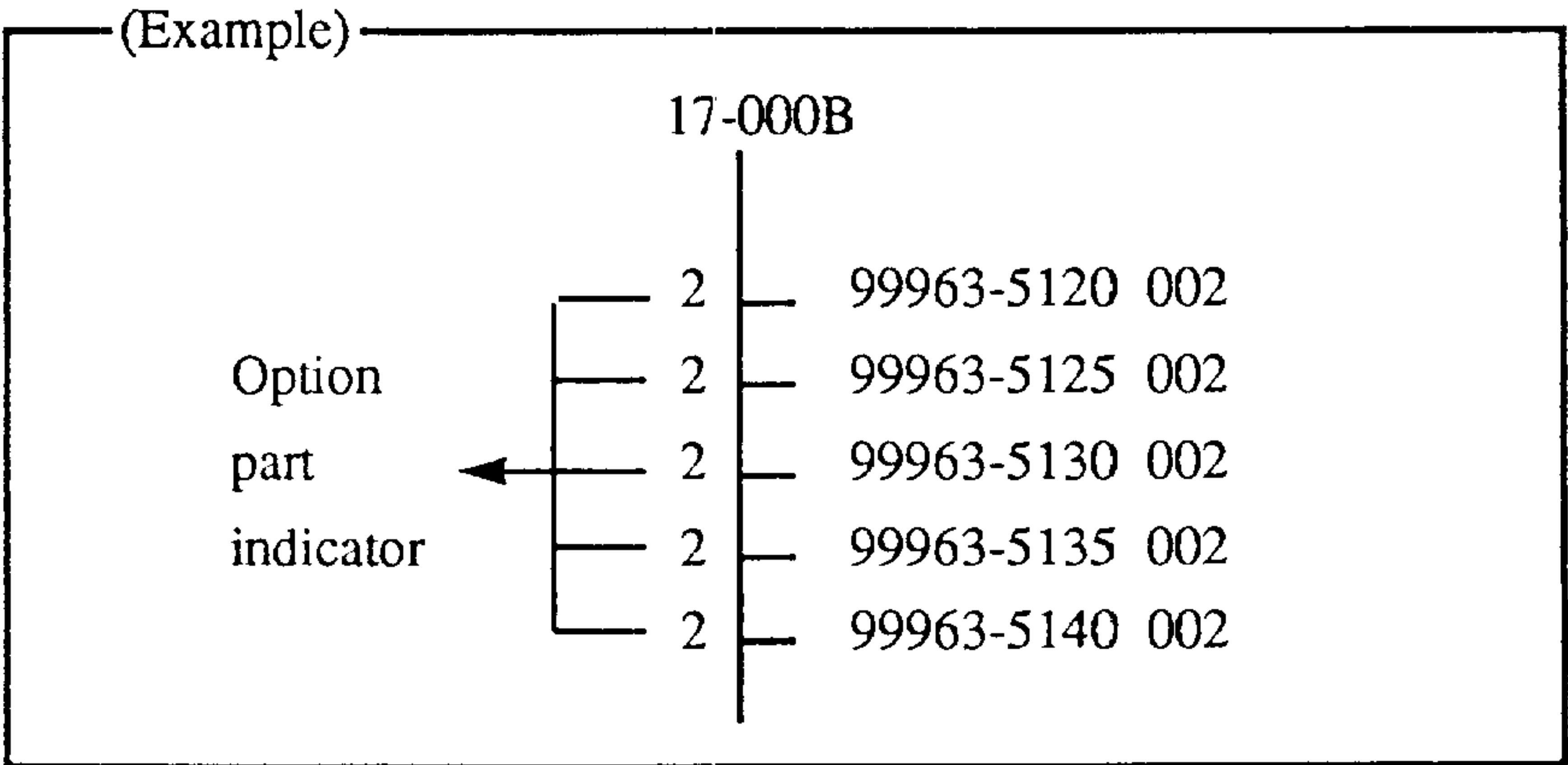


ii) When no vendor option part exists for a specification of a part commodity in the group which includes vendor option parts, [J] or [K] is not established though a summary number shall be established.

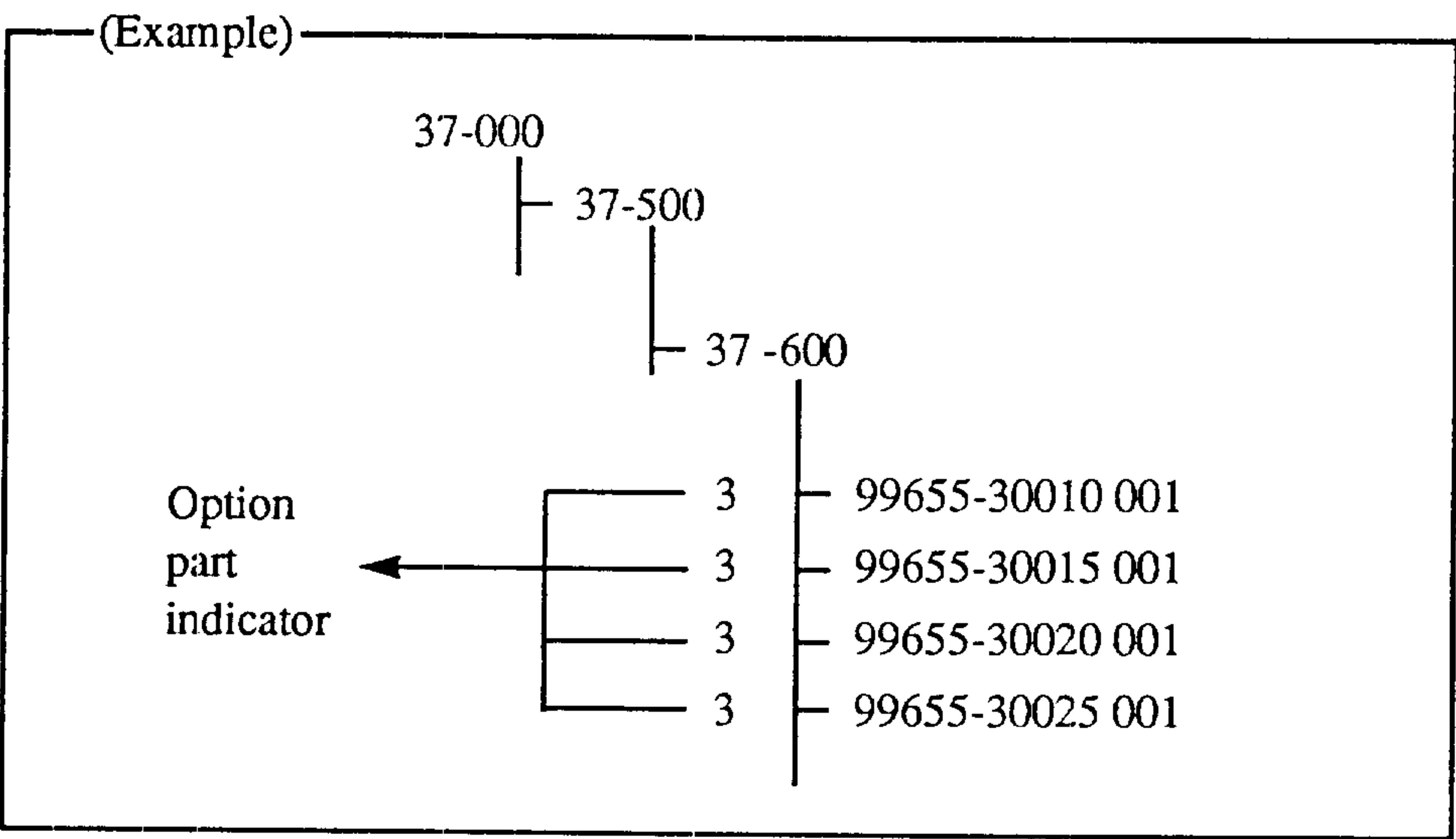


2-5 Structure representation of alternate option (A part is selected at site)

Alternate option shall be represented by establishing two or more parts required to meet designed tolerance requirements on the same level, and establishing [2] in the option part indicator.



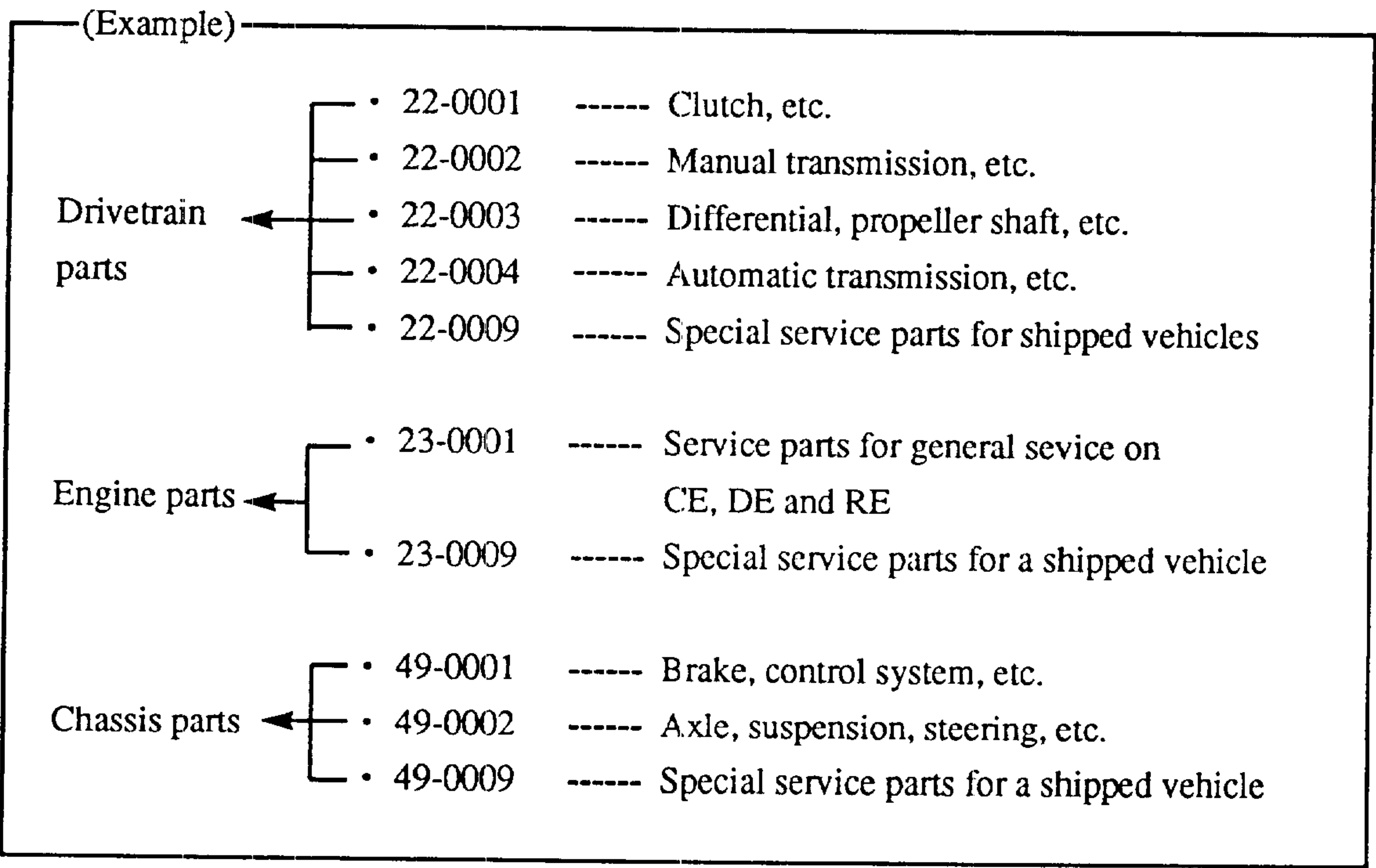
2-6 Structure representation of quantity option (Quantity for a part is selected at site): Quantity option shall be represented by establishing average quantity required to meet designed tolerance requirements, and establishing [3] in the option part indicator.



3. Structure Representation for Special Groups

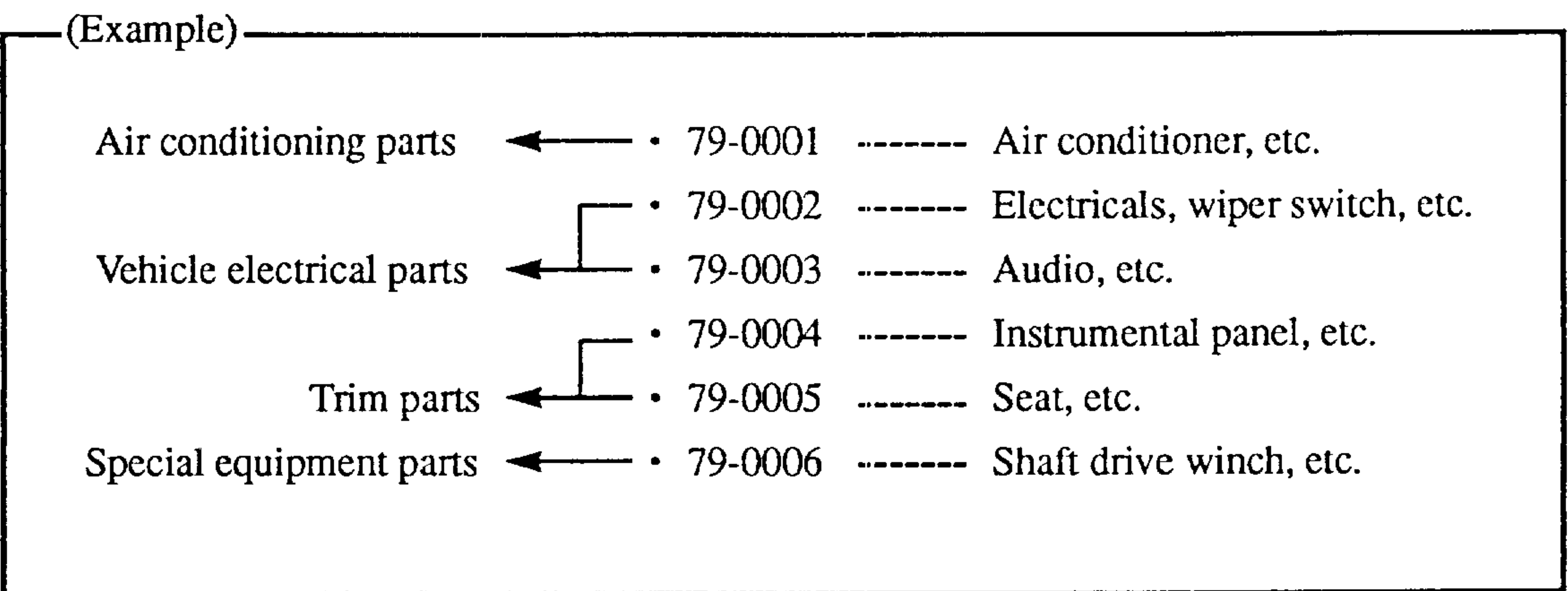
3-1 Service Parts Groups

a) Service parts groups shall be established, as shown below, to include service parts for repair in Korea and overseas based on the classification by function.



3-2 Dealer Option Groups

- a) Domestic dealer option groups shall be established, as shown below, to include parts to be added or replaced by dealers based on the classification by function.



- b) Overseas dealer option parts, or KIA genuine option or repair parts procured overseas and installed or sold by overseas subsidiaries or distributors, shall be established in the group 79K to distinguish them from the parts handled directly by KIA.
 - 1) The group 79K shall be established for a base specification when required, and shall include all the option parts and repair parts purchased from overseas for installation on models in the base specification.
 - 2) The group 79K shall be established in all models in the base specification.
 - 3) The part prefix of the group 79K shall be the same as the representative model code in the base specification.

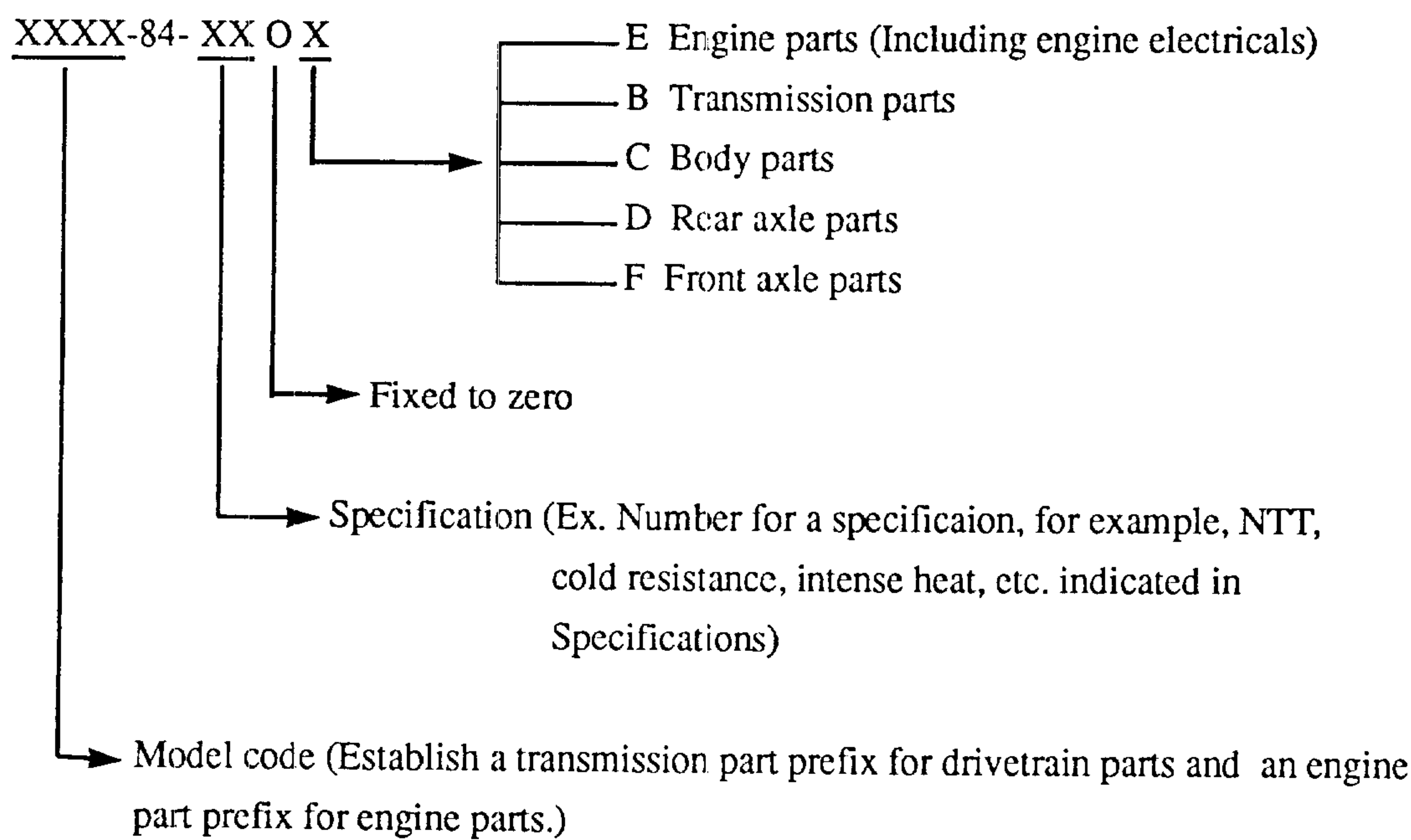
Note: For detailed list of components for each group, see Appendix "Standard Group Structure."

3-3 Hard Special Groups(84-000)

- a) Establishment of the group 84 is possible only when its feasibility has been confirmed.(The group 84 should be avoided if possible.)
- b) Hard group parts (i.e. engine, transmission, chassis and body parts) shall be established directly below a model based on the classification by function when they are handled as option parts.
- c) Kit numbers for the intended specification shall be established directly below the groups.
- d) System of hard special groups

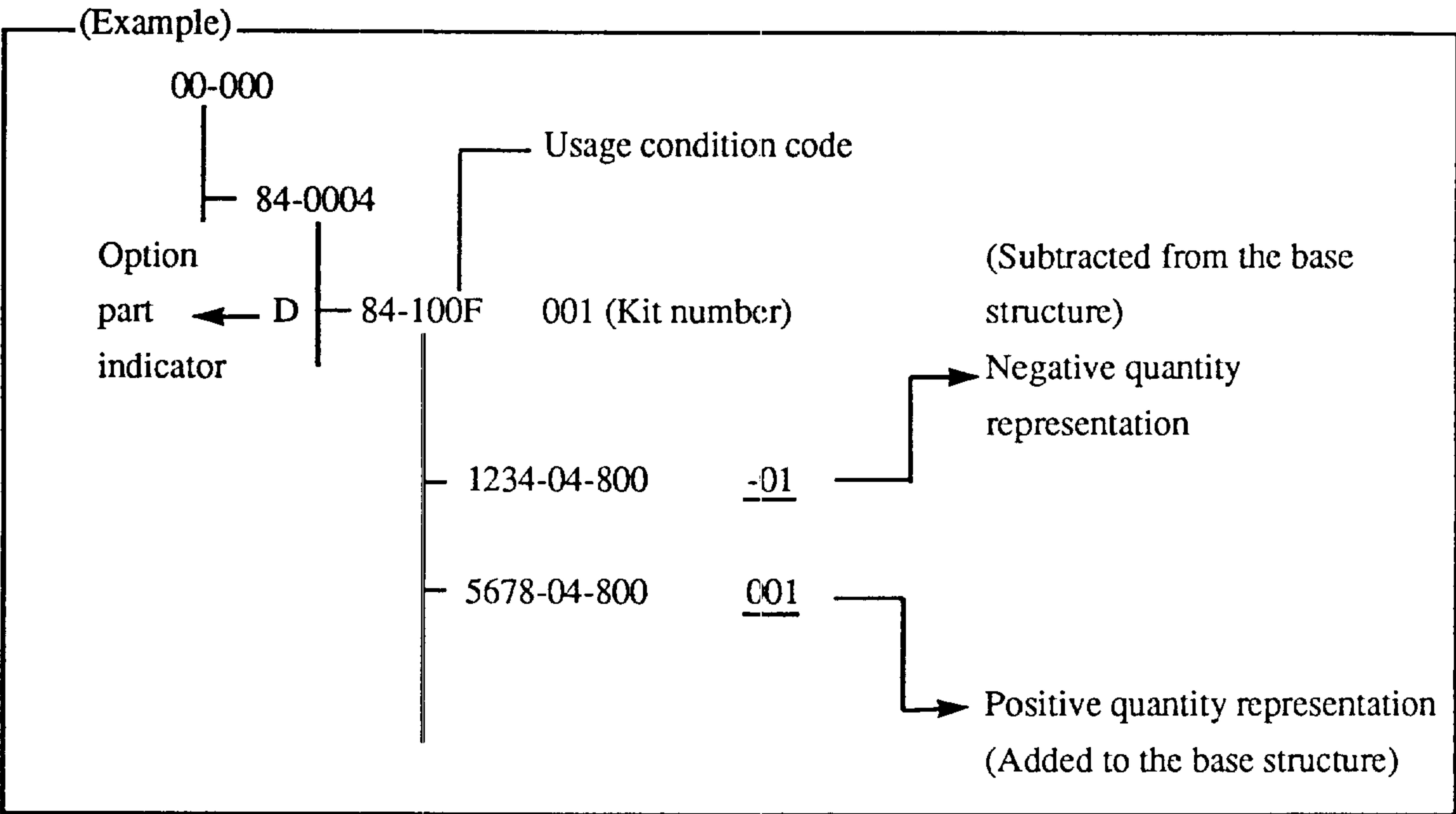
Model	Group	Kit Number	Major Parts
00-000	84-0001	84-XXOE	Engine parts (Including engine electricals)
	84-0002	84-XXOB	Drivetrain parts
	84-0003	84-XXOC	Body parts
	84-0004	84-XX0D	Rear axle parts
	84-0005	84-XX0F	Front axle parts

e) Kit number shall be represented as follows:



f) Structure representation of hard group parts

i) When option parts are related to only one Designing Department, they are represented as follows:



ii) When option parts are related to two or more Designing Departments, summary numbers are added as shown below:

