



**SPECIFICATION FOR
PREPARATION OF PROVISIONING DOCUMENTATION
FOR CANADIAN FORCES EQUIPMENT**

(BILINGUAL)

(Supersedes D-01-100-214/SF-000 dated 1991-11-05)

**SPÉCIFICATION POUR
LA PRÉPARATION DES DOCUMENTS D'APPROVISIONNEMENT
EN MATÉRIEL DES FORCES CANADIENNES**

(BILINGUE)

(Remplace la D-01-100-214/SF-000 de 1991-11-05)

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SUPERSEDES

D-01-100-214/SF-000

1991-11-05

**SPECIFICATION
FOR
PREPARATION OF PROVISIONING DOCUMENTATION FOR
CANADIAN FORCES EQUIPMENT**

1. SCOPE

1.1 **Introduction.** The Department of National Defence (DND) is required to ensure that maintenance and supply support is available to sustain new weapons systems and equipments (end items) throughout life cycles. Provisioning Documentation (PD), in the form of any or all of Provisioning Parts Breakdowns (PPBs), Recommended Spare Parts Lists (RSPLs), Long Lead Time Item Lists (LLTILs) or Interim Spares Lists (ISLs), as defined in paragraph 3.1, is used by DND to select, procure and distribute a range and quantity of spare parts considered necessary to maintain the end item during an initial period of in-service use. The PD is also used to establish and maintain an automated data base, so that uninterrupted and continuing maintenance/supply support is provided during the entire life cycle.

1.2 **Purpose.** This specification describes all the data elements that may be required for inclusion in any or all of a PPB, RSPL, LLTIL or ISL and how it is to be presented. The procurement instrument will define the actual documentation and specific data elements required.

1.3 **Application.** This specification will apply to all new production contracts for end items, and will be equally binding on both the contractor and vendors/subcontractors, as the contractor is required to impose upon vendors/subcontractors the applicable requirements, terms, conditions and data requirements including Supplementary Provisioning Technical Documentation (SPTD) (refer to paragraph 3.8). Application of this specification to existing contracts will be at the discretion of DND.

1.4 **Method of reference.** This specification will be referenced in the Statement of Work (SOW) and/or will be specified in the procurement document/contract for the end item.

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1.5 **Intended use.** The PD specified in the contract, when prepared in accordance with this specification, will be used by DND as follow:

- (a) To identify, select, catalogue and procure a range and depth (quantity) of spare parts considered necessary to maintain the end item during an initial period of in-service use.
- (b) To establish a record of the end item configuration for configuration management, as detailed in the PD, on DND computer files. The computer record will form the basis of equipment support publications which are used by Canadian Forces technical and supply personnel.

2. APPLICABLE DOCUMENTS

2.1 **Government documents.** The contractor is to provide the NATO Commercial and Government Entity (NCAGE) codes for each item listed on the Provisioning Documents. The Defence Logistics Information Service (DLIS) web site (www.dlis.dla.mil/cageserv.asp) contains all NCAGE codes and they can also be contacted through this mailing address:

Defence Logistics Information Service
74 Washington Avenue North
Battle Creek MI
49017-3084

2.2 **Standards Council of Canada.** The following publication may be used in conjunction with this specification. The date of issue in effect on the date of invitation to tender will apply to the document.

Standards Council of Canada
270 Albert Street, Suite 200
Ottawa, Ontario, Canada, K1P 6N7

ANSI/IEEE 315-1975 Graphic Symbols for Electrical and Electronic Diagrams

2.3 **Definitions, abbreviations and acronyms.** For the purpose of this specification, the definitions, abbreviations and acronyms listed in Section 6 of this specification apply.

3. REQUIREMENTS

3.1 **Provisioning Documentation (PD).** The generic term used to describe the various types of documentation needed by DND to identify, select, catalogue, procure and distribute initial support spares. The types of PD that will be ordered will be based on the complexity of each system/equipment and the extent of in-service maintenance that will be performed. Based on these parameters, the contractor will be required to provide either a PPB or an RSPL, possibly together with an LLTIL and/or an ISL in support of a new system/equipment and/or its associated support equipment. The actual requirement will be specified in the contract for the end item.

3.1.1 **Provisioning Parts Breakdown (PPB).** The PPB provides a topdown breakdown of the equipment in the configuration in which it is being procured. This breakdown is accomplished by listing all parts included in the end item in a lateral and descending family tree/generation breakdown. In this breakdown, all assemblies, subassemblies and parts are listed in relation to the next higher assembly. This relationship is shown by means of an indentation code as illustrated in the topdown breakdown sequence (see Figure 4). For example, an assembly with indentation code B must be followed by a detailed breakdown of all the subsequent indentation codes pertaining to that assembly before the next indentation code B assembly (if any) is, in turn, broken down.

3.1.2 **Recommended Spare Parts List (RSPL).** The RSPL is a list of spare parts deemed necessary, by the contractor, to maintain the equipment and/or, where applicable, its associated support equipment, for a period of 24 months exclusive of any warranty period.

3.1.3 Long Lead Time Item List (LLTIL). The LLTIL is a list of items which, because of complexity of design, complicated manufacturing processes or limited production, may violate procurement times so that delivery of spares would be later than the introduction of the end item. It should also include items for which a cost benefit can be realised for procurement concurrent with the manufacture of those same items for inclusion in the end item being procured.

3.1.4 Interim Spares List (ISL). The ISL is a list of essential spares which must be acquired in the event that insufficient time or documentation is available to conduct the conventional Initial Provisioning (IP) process prior to the system/equipment entering service with DND.

3.2 Delivery dates. The PD defined in the contract shall be delivered to DND within the time frame agreed upon in the terms and conditions specified in the end item contract.

3.3 Delivery of PD. The PD shall be delivered to DND under cover of a letter specifying the contract serial number, the end item name and the contractor's name.

3.4 Transmittal of PD. The PD shall be prepared electronically in accordance with detailed instructions (refer to paragraphs 3.9 through 3.9.4.19 inclusive) and be provided by the contractor on Compact Discs (CDs) or three and one half inch (3-1/2 in.) floppy diskette formatted in ASCII, MS Excel or other acceptable program.

3.5 PPBs prepared in accordance with US DoD Military Standards (MIL STDs). PPBs prepared in accordance with US MIL STD 1388-2A or Interactive Computer and Aided Provisioning System-Personal Computer version (ICAPS-PC) are acceptable to DND. PPBs prepared in accordance with US MIL STD 1552A are also acceptable provided the PPB data is current and reflects the equipment configuration being purchased by DND.

3.6 Printed hard copy requirement. PD submitted in CD or diskette format should be accompanied by a printed hard copy of the data.

3.7 Government Supplied Materiel (GSM). Materiel provided by DND to a contractor which will be incorporated in, or which may be consumed or expended in the performance of a contract, is referred to as GSM. It includes, but is not limited to, raw and processed materiel, parts, components, assemblies, tools and supplies. GSM, if applicable, shall be included as a single line item in the PPB but shall not be broken down to assembly, subassembly or part level.

3.8 Supplementary Provisioning Technical Documentation (SPTD)

3.8.1 SPTD requirement. The contractor shall provide SPTD for each item appearing on the PD (first appearance only) as follows:

- (a) For PPB verification purposes, the contractor shall provide full assembly drawings with attached parts lists, so that DND can ensure that the PPB reflects the current and complete configuration of the equipment being procured.
- (b) For item identification and cataloguing purposes, the technical data supplied for all PD must be sufficiently comprehensive to allow DND to classify and fully describe the item within the NATO codification system and must be cross-referenced to the applicable contract number.

3.8.2 SPTD provision. Provision of the SPTD shall be as follows:

- (a) SPTD shall not be sent with the PPB but shall be made available for DND use and retention at the Initial Provisioning Conference (IPC).
- (b) SPTD shall be submitted to DND with those documents.

3.8.3 Specifications, standards or engineering drawings. To satisfy this requirement, the contractor shall furnish for each item an applicable recognized industry specification or standard; or, if a specification or standard does not apply, an engineering drawing, preferably equal to Level 3, but at least equal to Level 2 (refer to definitions in Section 6). Whenever possible, the specification, standard or engineering drawing prepared by the actual manufacturer of the item shall be furnished. Regardless of whether the furnished documentation is a specification, standard or engineering drawing, it shall clearly define all applicable features of the item depicted, including:

- (a) configuration;
- (b) physical characteristics, such as dimensions, tolerances, materiel, mandatory processes, surface finish, protective coatings, etc.;
- (c) electrical characteristics;
- (d) performance data, e.g., those physical and functional characteristics under specified operating conditions (load, speeds, etc.) and the environmental conditions under which the item must operate and perform;
- (e) mounting requirements; and
- (f) special features which contribute to the uniqueness of the item.

Note: The information provided shall include the NATO Commercial and Government Entity (NCAGE) code or the full name and address of the actual manufacturer of the item and the actual manufacturer's part/reference number.

3.8.4 Specifications, standards or engineering drawings not applicable. There may be some items listed for which it is not standard industrial practice to produce specifications, standards or engineering drawings. In that case, prior to submitting the PD, the contractor shall forward samples of the proposed SPTD to the DND NATO Cataloguing Authority (DTICS) to provide for NATO cataloguing of those items. Under such special circumstances, catalogues, catalogue descriptions or sketches/photographs with textual descriptive data will be considered. However, the contractor is advised that the data requirements are the same as those specified for specifications, standards and engineering drawings.

3.8.5 Letters of refusal. Where a manufacturer refuses to supply the contractor with data requirements for proprietary or other reasons, the contractor is not relieved of the obligation to provide the relevant data. The contractor shall further pursue the matter with the manufacturer to effect one of the following alternatives and shall advise DND of the alternative achieved at the time the PD is submitted. The alternatives are as follows:

- (a) the manufacturer will submit the data directly to DND;
- (b) the manufacturer will allow a visit to his facility to permit DND representatives to review and capture the data; and
- (c) the manufacturer will prescribe an alternative method of furnishing adequate data to enable the provisioning process to be accomplished.

Note: Should the manufacturer still refuse to supply the relevant data requirements, the contractor shall, as a last resort, obtain a letter of refusal stating the manufacturer's specific refusal to both supply the data requirements and satisfy any of the alternatives listed in paragraphs 3.8.5(a) through 3.8.5(c), and shall submit such letter(s) of refusal to DND.

3.8.6 SPTD not required. SPTD need not be provided for an item appearing on the PD which is identified as a Canadian or US Government specification and/or a Military Standard which completely describes the item including dimensional, materiel, mechanical and electrical characteristics.

3.8.7 Release of data. Data extracted from documentation furnished for NATO cataloguing purposes may be used for National and International governmental transactions. The contractor shall be responsible for advising DND of any restrictions imposed by the documentation source entity on the release of such data. Data categorized by the documentation source entity as Commercial in Confidence will not be released outside government circles without the written consent of the source entity.

3.8.8 Acceptability of SPTD for NATO cataloguing purposes. In case of disputes regarding the acceptability of SPTD furnished for NATO cataloguing purposes, the ruling of the DND NATO Cataloguing Authority shall prevail.

3.9 Detailed instructions for the preparation of the PD

Note: All definitions and acronyms are listed in Section 6 of this specification.

3.9.1 Application. These instructions are applicable to the preparation of the PD.

3.9.2 Electronically prepared PD. For CD or diskette submission, all the possible fields required, together with field lengths, are listed at Figure 1. Full descriptions of field content follow in paragraph 3.9.4.

3.9.2.1 The contractor shall specify:

- (a) the number of records;
- (b) the location of fields on the CD or diskette; and
- (c) the number of CDs or diskettes.

3.9.3 Data fields. For each item included in the PD called up in the contract and described in detail in paragraph 3.1, up to nineteen (19) data fields are required. The exact fields required for each type of PD will be specified by field number in the Provisioning Documentation Selection Sheet (PDSS), which will form a part of the procurement instrument. An example of the PDSS can be found in Figure 5. The data fields are listed in Figure 1 and described in detail in paragraphs 3.9.4.1 to 3.9.4.19. Each field has been assigned a number and is limited as to the number of characters it can contain. For quick reference purposes, an illustration of the PPB worksheet is presented in Figure 2 with the corresponding fields and an abbreviated description of data element.

3.9.4 Data elements. The data elements required for each item listed on the PD are described in the following subsections and are displayed in Figure 2.

3.9.4.1 Field 1, Item No. This field has six alphanumeric characters used for line item control. The first item is usually numbered 000100, continuing in numerical sequence in increments of one hundred (100). This permits the addition of new items, e.g., 000101, 000102, 000201 to 000299, etc. by DND.

3.9.4.1.1 Alpha prefixes may be used by the contractor to identify various main groups or assemblies and breakdowns, e.g., A00100 commences the radio receiver breakdown, B00100 commences the radio transmitter breakdown. If alpha prefixes are used, double alphas precede single alphas and single alphas precede numerics in the DND computer sort sequence, e.g., AA0100, A00100, BB0100, B00100, 000100. The letters I or O shall not be used as alpha prefixes.

3.9.4.2 Field 2, Indention Code (IND). This field has one alpha character used to indicate the relationship of the line item to its next higher assembly. Attaching parts shall be identified by using the Indention Code Y. Letters I or O shall not be used when completing this field. The following breakdown shall be used and is displayed graphically in Figure 4 of this specification.

Indentation Code	Level of Breakdown
A	System/End Item (there shall be only one indent A item)
B	Assembly
Y	Parts used to attach the assembly to a system/end item
C	Subassembly / detailed parts of an assembly
Y	Parts used to attach a subassembly to an assembly
D	Sub-subassembly / detailed parts of a subassembly
Y	The parts used to attach a sub-subassembly to a subassembly
E	Sub-sub-subassembly / detailed parts of a sub-subassembly
Y	Parts used to attach a sub-subassembly to a subassembly

3.9.4.3 **Field 3, Item Name Basic.** This field has a maximum of 19 alphanumeric characters and is used for the item name, with appropriate adjective modifier, when applicable.

3.9.4.4 **Field 4, Manufacturer's Reference Number (MRN).** This field has a maximum of 31 alphanumeric characters and is used to record the part number, drawing number or catalogue number of the original (actual) manufacturer of the line item. If a military specification or standard number exists, e.g., MIL, AN, AS, MS or NAS, it shall be used.

3.9.4.4.1 This field shall not be used to indicate the contractor's part number, control drawing number, company standard number, etc., unless the contractor is the actual manufacturer of the item; or the item as manufactured by the original manufacturer is subsequently modified by the contractor for use on the equipment or assembly procured by DND (refer to paragraph 3.9.4.6).

3.9.4.5 **Field 5, NATO Commercial and Government Entity (NCAGE) Code.** This field has five (5) alphanumeric characters and identifies the NATO number of the manufacturer of the line item whose number appears as the manufacturer's reference number in Block 4 of the PPB worksheet at Figure 2. The codes are listed at the DLIS web site referred to in paragraph 2.1.

3.9.4.5.1 If the manufacturer's NCAGE code is not available, the contractor shall provide the full name and address of the manufacturer, cross-referred to the applicable Line Item Number, on a separate list which shall accompany the PD. In such a case, the NCAGE field should be left blank.

3.9.4.6 **Field 6, Original Equipment Manufacturer's (OEM's) Part Number.** This field has a maximum of 17 alphanumeric characters and is used to reflect the original equipment manufacturer's specification control drawing number, company standards number, part number or catalogue number assigned to the line item, if it is different from the original manufacturer's reference number as entered in Field 4. If there is no difference, this field may be left blank.

3.9.4.7 **Field 7, NATO Stock Number (NSN).** This field has 16 characters consisting of 13 numerics and three dashes or spaces, formatted thus: 9999-99-999-9999 or 9999 99 999 9999. If an NSN exists and is known to the contractor, it should be provided.

3.9.4.8 **Field 8, Quantity per Assembly (QPA).** This field has a maximum of four (4) numeric characters used to record the total number of times the line item is used in the next higher assembly.

3.9.4.9 Field 9, Standard Unit Price. This field has six (6) numeric characters and three (3) numeric characters used to record the unit price of a line item. Six (6) numeric characters are used for dollars (\$) and three (3) numeric characters are used for cents (¢). Dollars must be right justified (e.g., 25 000 for \$25., 1000 for \$1., etc.). Three characters must be used for cents, 500 for 50¢, 050 for .05¢, etc. Decimal points, commas, dollar and cent signs are to be omitted. Prices exceeding \$999 999.999 shall be displayed as 999999999.

3.9.4.9.1 The prices quoted are for budgetary purposes only and are not contractually binding. The contractor shall enter the best estimated unit price for each line item without regard to quantity per unit pack or minimum buy quantity.

3.9.4.10 Field 10, Unit of Issue (UOI). This field has two (2) alpha characters used to reflect the unit of issue code appropriate to each line item. The accepted units of issue and abbreviations are listed at Annex A of this specification.

3.9.4.11 Field 11, Reparability (REP) Indicator. This field has one (1) alpha character and applies to repairable items only. The contractor shall indicate by the letter R those items which are considered to be economically repairable. Otherwise, this field is left blank.

3.9.4.12 Field 12, Government Supplied Materiel. This field has one (1) alpha character. The contractor shall indicate by the letter G those items which have been/will be supplied as GSM (refer to paragraph 3.7). Otherwise, this field is left blank.

3.9.4.13 Field 13, Procurement Lead Time (PLT). This field has three (3) numeric characters used to record the interval (in days) between the time of order of a line item by DND to the time of receipt by DND. The field is right justified, e.g., 005 for five days, 050 for 50 days, etc.

3.9.4.14 Field 14, Reference Designation. The field has a maximum of 18 alphanumeric characters for electrical and electronic parts and equipments used to record the following:

- (a) The reference designation for electrical and electronic parts and equipments as described in paragraphs 3.9.4.14.1 to 3.9.4.14.10 inclusive.
- (b) Mechanical and other types of items or equipments. The contractor may indicate the volume, figure and index number of the publication (Illustrated Parts Book, Maintenance Manual) or the identifying number/symbol reflected in the SPTD. This cross-reference to technical manuals or publications is usually done by recording three alphanumeric groups of characters, separated by commas. As an example, if a basic part indexed No. 5 is illustrated at Figure 4A of the technical volume 2, the reference designation should be recorded as follows:

2,	4A,	5,
Volume No.	Figure No.	Index No.

Note: The sum of alphanumeric characters and commas shall not exceed the 18 character field length.

3.9.4.14.1 Reference designations (reference symbol numbers) used for electrical and electronic parts and equipments are letters or numbers, or both, which uniquely identify discrete items on drawings, diagrams, parts lists and other publications or instructions. They also provide a means of physically locating the parts and divisions of an equipment or assembly, thus facilitating the repair and maintenance of complex electrical and electronic items.

3.9.4.14.2 A reference designation is not a letter symbol, abbreviation or a functional designation for an item. It does not replace other identification numbers such as drawing, part, type or stock number.

3.9.4.14.3 The following four (4) methods of forming and applying reference designations are acceptable:

- (a) Unit (Component) Numbering Method;
- (b) Location Numbering Method;
- (c) Location Coding Method; and
- (d) Block Numbering Method.

3.9.4.14.4 The Unit (Component) Numbering Method is preferred by DND because it is more flexible, is universally acceptable and has proven to have significant advantages over the other methods, especially for equipments of new design. A detailed description of this method is provided in paragraphs 3.9.4.14.5 to 3.9.4.14.10 inclusive. A typical example is also provided in Figure 6.

3.9.4.14.5 The contractor shall first assign a number to each unit (component) of a set. Numbers are always assigned sequentially starting with one (1) and shall not be reused even though a unit has been deleted.

3.9.4.14.6 If the unit (component) has assembly(ies) and subassembly(ies), each assembly and each subassembly shall be assigned a letter and a number. The assembly shall have the unit number as its first character, the subassembly shall have the assembly's numbers as its first characters, and so on.

UNIT	ASSEMBLY	SUBASSEMBLY
1	1A1	1A1A1

Note: The combination of letters and numbers shall identify the relationship between a subassembly and its assembly. Numbers are assigned sequentially.

3.9.4.14.7 If the assembly/subassembly has basic part(s), each basic part shall be given a class letter(s) selected from Section 22 of the Standard ANSI/IEEE 315-1975. The class letter(s) shall be followed by a number to differentiate the basic part from all other parts identified in the same class letter(s). Numbers are assigned sequentially.

3.9.4.14.8 If the reference designation number exceeds the 18 character field length, the contractor shall complete the reference designation field for a line item to a logical break-point and shall repeat the same line item immediately following the first entry in order to accommodate the excess characters, e.g., an assembly drawing reflects reference designation 1A1R2, 6, 9, 11, 12, 13, 14, 15, 20-23 for a resistor listed as Item Number 026800. The reference designation number for the first appearance, Identification Number 026800 should read 1A1R2, 6, 9, 11, 12, 13, 14, 15 which is a logical break-point, followed by a second appearance, Identification Number 026900, whose reference designation number should read 1A1R20-23. The Quantity per Assembly (QPA) for each line item should reflect only the number of reference designations on that line (e.g., 1A1R2, 6, 9, 11, 12, 13, 14, 15 equals a QPA of 8, 1A1R20-23 a QPA of 4).

3.9.4.14.9 When recording a reference designation number for a line item, the contractor shall ensure the number of reference designations agree with the Quantity per Assembly (QPA) in Field 8, e.g., if the reference designator is 1A3B1R1-R5, the QPA should read 5.

3.9.4.14.10 There are a number of exceptions to the Unit Numbering Method outlined in paragraphs 3.9.4.14.5 to 3.9.4.14.9. The contractor shall therefore refer to the Standard ANSI/IEEE 315-1975 (see Section 2) whenever reference designation numbers (reference symbol numbers) for electrical and electronic parts and equipments are required.

3.9.4.15 **Field 15, Shelf Life (SL).** This field has two (2) numeric characters used to record shelf life duration, in months, e.g., 06 for six months, 18 for eighteen months. If no shelf life applies, this field is left blank.

3.9.4.16 **Field 16, Usage Rate.** This field has five (5) numeric characters for repairable items and is optional for non-repairable items. It is used to reflect the Mean-Time Between Failure (MTBF) rate for items which are only replaced when they become unserviceable or Mean Time Between Removals (MTBR) for items which are subject to scheduled removals. These rates are normally expressed in hours, e.g., 99000, 00400, to a maximum of 99999, but may also be recorded in kilometers or miles for vehicular components. In instances where the contractor does not provide the usage rate in hours, the convention used, such as kilometers, rounds, etc. must be indicated to DND.

3.9.4.17 **Field 17, Buy Quantity.** This field has eight (8) numeric characters and is used to record the quantities of a line item that the contractor recommends be procured to support the end item for a 24-month period.

3.9.4.18 **Field 18, Source, Maintenance and Recoverability (SMR) Code.** SMR codes are a series of alpha symbols used at the time of provisioning to indicate the source of supply of an item, its maintenance implications and recoverability characteristics.

3.9.4.19 **Field 19, Demilitarization Code (DMC).** This field has one (1) alpha character code employed by the countries to identify each item requiring demilitarization and the type of demilitarization required. The list of codes are contained in Annex B to this specification.

4. **QUALITY ASSURANCE PROVISIONS**

N/A.

5. **PACKAGING**

N/A.

6. **NOTES**

6.1 **Definitions.** For the purpose of this specification, the following definitions apply.

6.1.1 **Assembly.** An item forming a portion of an equipment, that can be provisioned and replaced as an entity and which normally incorporates replaceable parts or groups of parts.

Note: The distinction between an assembly and a subassembly is determined by the individual application. An assembly in one instance may be a subassembly in another where it forms a portion of an assembly.

6.1.2 **Attaching part.** An attaching part is an item used to attach assemblies or parts of an equipment to each other.

6.1.3 **Character.** Characters may be letters, digits, punctuation marks or other symbols that are used for the control or representation of data.

6.1.4 **Component.** A part or combination of parts, having a specified function, which can only be installed or replaced as a whole.

6.1.5 **Configuration.** The functional and/or physical characteristics of hardware/software as set forth in technical documentation and achieved in a product.

6.1.6 **Contract.** A contract is a deliberate engagement, recognised by law, between competent parties upon a legal consideration to do or abstain from doing some act.

6.1.7 Data element. A unique collection of data items grouped together on the basis of a single, shared or common functional attribute.

6.1.8 Data field. A data field is a specified area used for a particular category of data.

6.1.9 End item. An end item is a final combination of end products, component parts and/or materiel which is ready for its intended use, e.g., rifle, recorder, ship tank, mobile machine shop or aircraft.

6.1.10 Equipment. Equipment is defined as a combination of parts, assemblies or subassemblies forming a particular article within itself and capable of performing an operational function.

6.1.11 Family tree. A family tree is a pictorial hierarchical depiction of an equipment which displays its make-up in terms of components, assemblies and subassemblies, etc. (see Figure 4).

6.1.12 Functional designation. Functional designation is defined as words, abbreviations or meaningful number or letter combinations, usually derived from the function of an item, e.g., slew, yaw. It is used on drawings, instructional materiel and equipment to identify an item in terms of its function.

6.1.13 Group. A group is a collection of components (units), assemblies or subassemblies which is not capable of performing a complete operational function. A group may be a subdivision of a system or may be designed to be added to or used in conjunction with a system to extend the function or the utility of the system, e.g., antenna group, indicator group.

6.1.14 Indention (IND). IND is an alpha character which illustrates a lateral and descending family tree relationship of each line item to and within the end item and its components, assemblies, subassemblies and sub-subassemblies.

6.1.15 Item name basic. The item name basic is the noun name of an item as listed in manufacturer's drawings, specifications or catalogue.

6.1.16 Level 2 engineering drawings. Drawings prepared to this level shall disclose directly or by reference a design approach suitable to support the manufacture of a production prototype and limited production models.

6.1.16.1 These engineering drawings shall include, as applicable, parts lists, detail and assembly drawings, interface control data, diagrams, performance characteristics, critical manufacturing limits and details of new materiel and processes. Special inspection and test requirements necessary to determine compliance with requirements for the item shall be defined on the engineering drawings or referenced to a document acceptable to DND.

6.1.17 Level 3 engineering drawings. Drawings prepared to this level shall provide engineering definition sufficiently complete to enable a competent manufacturer to produce and maintain quality control of item(s) to the degree that physical and performance characteristics interchangeable with those of the original design are obtained without resorting to additional product design effort, additional design data or recourse to the original Design Authority. These engineering drawings shall:

- (a) reflect the end product;
- (b) provide the engineering data for the support of quantity production; and
- (c) provide, in conjunction with other related procurement data, the necessary data to permit competitive procurement of items substantially identical to the original item(s).

6.1.17.1 These engineering drawings shall include: details of unique processes when essential to design and manufacture; details of performance ratings; dimensional and tolerance data; critical manufacturing assembly sequences; tolerance input and output parameters; diagrams; mechanical and electrical connections; physical characteristics, including form and finish; details of materiel identification, inspection, test and evaluation criteria; necessary calibration information; and quality control data.

6.1.18 **Life cycle.** Life cycle is the sequence of events comprising conception or selection, design and specification development, purchasing, manufacturing, delivery, warehousing, maintenance, repair and overhaul, use and disposal of an equipment or a system.

6.1.19 **Line item.** A line item is a valid entry in a record for the purpose of separate identification.

6.1.20 **Manufacturer's Reference Number (MRN).** MRN is a primary identifier comprised of an undetermined number of alphanumeric characters, assigned to an item of production by a manufacturer which controls the design, characteristics and production of the item by means of its engineering drawings, specifications and inspection requirements.

6.1.21 **Military Standard (MIL STD).** MIL STD is a US military term used to categorise a specification which has become a standard for use throughout all US military forces.

6.1.22 **NATO Stock Number (NSN).** A 13 digit number, e.g., 5305-21-111-3333, broken down as follows:

- (a) Digits 1-4, e.g., 5305 is the NATO supply classification consisting of Group 53 (which covers all items of hardware) followed by the class within the Group 05 (screws) 06 (bolts), etc., the whole being known as the Supply Class.
- (b) Digits 5-6, e.g., 00 US, 21 Canada, 14 France, 99 UK, etc.
- (c) Digits 7-13, e.g., 111-3333 the National Item Identification Number, non-significant, but sequentially assigned by each National Codification Bureau to a unique item of supply.
- (d) Digits 5-13, e.g., 21-111-3333 the NATO Item Identification Number including both the NATO Code of the National Codification Bureau and its item identification number. This 9-digit number remains with the item throughout its life even though the NATO supply classification may change as a result of reclassification and consequent conversion of stock numbers, e.g., 5305-21-111-2222 converted to 2805-21-111-2222.

6.1.23 **Part.** An item forming part of an assembly of subassembly, which is not normally further broken down.

6.1.24 **Part number.** A part number is any number used to identify an item of production, or used by itself or in conjunction with other reference numbers to identify an item of supply. Reference numbers include manufacturer's part, drawing, model, type or source controlling numbers; manufacturer's trade name; specification or standard numbers and specification or standard part, drawing or type numbers.

6.1.25 **Prime contractor.** The prime contractor is the supplier of the end item and associated support items to DND under the terms of a specific contract.

6.1.26 **Proposal.** The proposal is a tender, bid or offer which may be either unsolicited or submitted in response to an invitation from a contracting authority.

6.1.27 **Provisioning.** The process of determining requirements and initiating procurement.

6.1.28 **Shelf Life (SL).** The length of time during which an item of supply, subject to deterioration or having a limited life which cannot be renewed is considered serviceable while stored.

6.1.29 Statement of Work (SOW). A document forming a part of the contract demand/requisition and/or contract which describes and identifies in unequivocal terms every aspect of all the work that must be performed to satisfy the particular requirement.

6.1.30 Subassembly. A portion of an assembly, consisting of two or more parts, that can be provisioned and replaced as an entity.

6.1.31 Subcontractor. A party who contracts with a prime contractor to perform all or any part of the prime contractor's obligation in a particular prime contract.

6.1.32 Support items. Support items are items associated with an end item, e.g., parts, tools, test equipment and sundry materiel, which are required to operate, repair or overhaul an end item.

6.1.33 Tender. A tender is a proposal, bid or offer that is submitted in response to an invitation from a contracting authority.

6.1.34 Unit. An assembly or any combination of parts, assemblies and subassemblies mounted together normally capable of independent operation in a variety of situations.

6.1.35 Vendor. A vendor is a manufacturer or supplier of a component, assembly or part which will be incorporated by the contractor into the end item exactly as procured.

6.1.36 Vendor item. A vendor item is an item which is used in or attached to the end item produced by the contractor and is procured by the contractor on the open market or from established sources and for which the contractor is not the Design Authority.

6.2 Abbreviations/Acronyms. The following abbreviations/acronyms apply:

(a)	ANSI	American National Standard Identification
(b)	BPI	Bytes per Inch
(c)	CSA	Canadian Standards Association
(d)	DND	Department of National Defence (Canada)
(e)	DoD	Department of Defence (US)
(f)	DTICS	Directorate of Technical Information and Codification Services
(g)	EDP	Electronic Data Processing
(h)	GSCS	Government Supply Classification System
(i)	GSM	Government Supplied Materiel
(j)	IND	Indentation Code
(k)	ISL	Interim Spares List
(l)	LLTIL	Long Lead Time Item List
(m)	MIL STD	Military Standard
(n)	MRN	Manufacturer's Reference Number
(o)	MTBF	Mean Time Between Failure
(p)	MTBR	Mean Time Between Removal
(q)	NATO	North Atlantic Treaty Organization
(r)	NCAGE	NATO Commercial and Government Entity
(s)	NSN	NATO Stock Number
(t)	OEM	Original Equipment Manufacturer
(u)	PDSS	Procurement Documentation Selection Sheet
(v)	PPB	Provisioning Parts Breakdown
(w)	PLT	Procurement Lead Time

(x)	QPA	Quantity per Assembly
(y)	REP	Reparability Indicator
(z)	RSPL	Recommended Spare Parts List
(aa)	SL	Shelf Life
(ab)	SMR	Source, Maintenance and Recoverability
(ac)	SOW	Statement of Work
(ad)	SPTD	Supplementary Provisioning Technical Documentation
(ae)	UOI	Unit of Issue
(af)	US	United States

6.3 **Technical interpretation of this specification.** NDHQ/Directorate of Technical Information and Codification Services (DTICS) is the final authority for the technical interpretation of this specification. Questions or queries should be addressed to:

**National Defence Headquarters
Attention: DTICS
Mgen George R. Pearkes Building
Ottawa, Ontario, Canada, K1A 0K2**

Attention: DTICS

Line	Location of Field	Field Name	Field Length
1	1-6	Item Number	6
1	7	Indention Code	1
1	8-26	Item Name Basic	19
1	27-57	Manufacturer's Reference Number (MRN)	31
1	58-62	NATO Commercial and Government Entity (NCAGE) Code	5
1	63-79	OEM's Part Number	17
1	80	Line Number – Value “1”	1
2	1-6	Item Number	6
2	7-10	Filler	4
2	11-26	NATO Stock Number (with dashes or spaces)	16
2	27-30	Quantity per Assembly	4
2	31-38	Filler	8
2	39-47	Standard Unit Price	9 (6, 3)
2	48-49	Unit of Issue (UOI)	2
2	50	Reparability Indicator (REP)	1
2	51	Government Supplied Materiel (GSM)	1
2	52-54	Procurement Lead Time (PLT)	3
2	55-72	Reference Designation	18
2	73-74	Shelf Life (SL)	2
2	75-79	Usage Rate	5
2	80	Line Number – Value “2”	1
3	1-6	Item Number	6
3	7-53	Filler	47
3	54-61	Buy Quantity	8
3	62-79	Filler	18
3	80	Line Number – Value “3”	1
4	1-6	Item Number	6
4	7-22	Filler	16
4	23	Demilitarization Code (DMC)	1
4	24-79	Filler	56
4	80	Line Number – Value “4”	1
5	1-6	Item Number	6
5	7-16	Filler	10
5	17-26	Source, Maintenance and Recoverability (SMR) Code	10
5	27-79	Filler	53
5	80	Line Number – Value “5”	1

Figure 1 Provisioning Parts Breakdown Line Item Field Structure

[illegible]

[illegible]

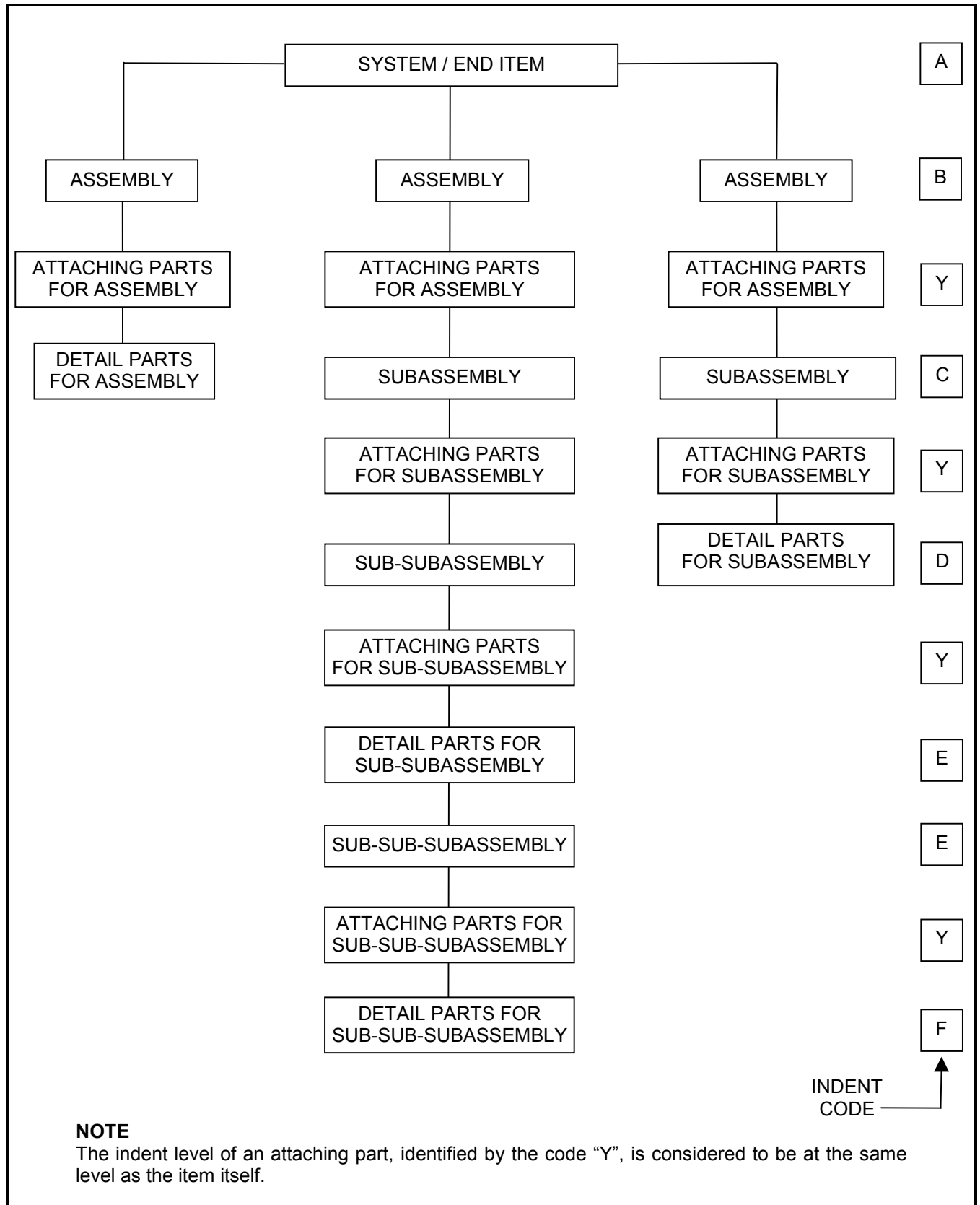


Figure 4 Top Down Breakdown Family Tree Relationship

Provisioning Documentation Selection Sheet		Documents and data to be supplied by the contractor are indicated below			
		P P B	R S P L	L L T I L	I S L
Characters	Data Fields Required				
1-6	Item Number	M	M	M	M
7	Indention Code	M	O	O	O
8-26	Item Name Basic	M	M	M	M
27-57	Manufacturers Reference Number (MRN)	M	M	M	M
58-62	NCAGE Code	M	M	M	M
63-79	OEM's Part Number	M*	M*	M*	M*
80-92	NATO Stock Number (NSN)	M*	M*	M*	M*
93-96	Quantity per Assembly	M	M	M	M
97-105	Standard Unit Price	M	M	M	M
106-107	Unit of Issue (UOI)	M	M	M	M
108	Reparability Indicator (REP)	M*	M*	M*	M*
109	Government Supplied Materiel (GSM)	M*	M*	M*	M*
110-112	Procurement Lead Time (PLT)	M	M	M	M
113-137	Reference Designation	M*	M*	M*	M*
138-140	Shelf Life (SL)	M*	M*	M*	M*
141-145	Usage Rate	M*	M*	M*	M*
146-153	Recommended Buy Quantity	NR	M	M	M
154-159	Source, Maintenance and Recoverability (SMR) Code	M*	M*	M*	M*
160-177	Logistics Control Number (LCN)	M*	M*	M*	M*
178-180	Used-on Code	M*	M*	M*	M*
LEGEND M Mandatory (field must be completed by contractor) M* Mandatory when known (field must be completed by contractor when the contractor is in possession of the necessary information and is left blank when not available) O Optional (field to be completed at contractor's option) NR Not Required					

Figure 5 Provisioning Documentation Selection Sheet

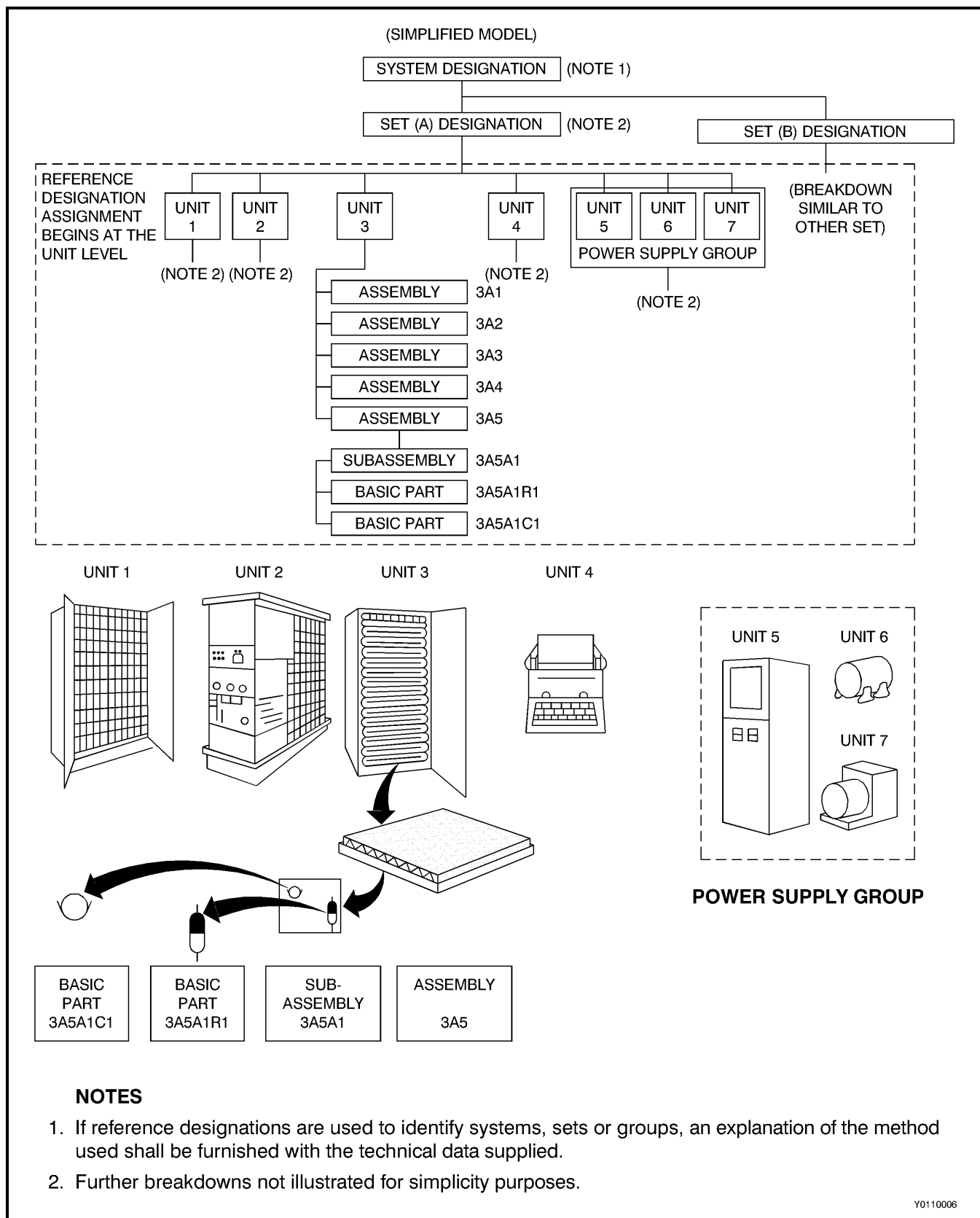


Figure 6 Illustration of Reference Designation Using the Unit Numbering Method

Annex A					
Unit of Issue (UOI)					
Code	Unit of Issue	Code	Unit of Issue	Code	Unit of Issue
AM	Ampoule	FM	Fathom	PZ	Packet
AT	Assortment	FT	Foot	QI	Quart, Imperial
AY	Assembly	FV	Five of an Item	QT	Quart, US
BA	Ball	FY	Fifty of an Item	RA	Ration
BD	Bundle	GB	Gallon, Imperial	RM	Ream
BE	Bale	GL	Gallon, US	RO	Roll
BF	Board Feet	GM	Gram	SC	Square Centimetre
BG	Bag	GN	Grain	SD	Skid
BK	Book	GP	Group	SE	Set
BL	Barrel	GR	Gross	SF	Square Foot
BM	Bushel, Imperial	HD	Hundred	SH	Sheet
BO	Bolt	HI	Hundredweight, Imperial	SI	Square Inch
BR	Bar	HK	Hank	SK	Skein
BT	Bottle	IN	Inch	SL	Spool
BX	Box	JR	Jar	SM	Square Meter
CA	Cartridge	KG	Kilogram	SO	Shot
CB	Carboy	KM	Kilometre	SP	Strip
CC	Cubic Centimetre	KT	Kit	ST	Short Ton
CD	Cubic Yard	LB	Pound	SX	Stick
CE	Cone	LG	Length	SY	Square Yard
CF	Cubic Foot	LI	Litre	TD	Twenty-four of an Item
CG	Centigram	LT	Long Ton	TE	Ten of an Item
CI	Cubic Inch	MC	Microgram	TF	Twenty-five of an Item
CK	Cake	ME	Meal	TI	Tin
CL	Coil	MG	Milligram	TM	Ton, Metric
CM	Centimetre	ML	Millilitre	TN	Ton (2000 lb)
CN	Can	MM	Millimetre	TO	Troy Ounce
CO	Container	MR	Metre	TS	Thirty-six of an Item
CY	Cylinder	MX	Thousand	TU	Tube
CZ	Cubic Metre	OT	Outfit	VI	Vial (or Phial)
DC	Decagram	OZ	Ounce	YD	Yard
DE	Decimetre	PD	Pad		
DG	Decigram	PG	Package		
DL	Decilitre	PI	Pint, Imperial		
DR	Drum	PM	Plate		
DZ	Dozen	PR	Pair		
EA	Each	PT	Pint, US		

Annex B**Demilitarization Code (DMC)**

Note: A code employed by the countries to identify each item requiring demilitarization and the type of demilitarization required.

Code	Explanation
A	Demilitarization not required.
B	Demilitarization not required. Trade Security Controls (TSC) required at disposition.
C	Remove and/or demilitarize installed key point(s) eventually as prescribed in national demilitarization manuals (see below), or lethal parts, components and accessories.
D	Demilitarize by mutilation (total destruction of item and components) by melting, cutting, tearing, scratching, crushing, breaking, punching, neutralising, etc. (as in alternate, burial and deep-water dumping may be used when authorized by DoD or National Demilitarization Program Office).
E	Demilitarization to be furnished by DoD or National Demilitarization Program Office.
F	Demilitarization instructions to be furnished by item/technical manager.
G	Demilitarization required prior to transfer of item to national reutilization and disposition offices. Code normally limited to ammunition, explosives and other dangerous articles.
P	Security Classified Item – Declassification and any other required demilitarization, and removal of any sensitive markings or information, will be accomplished prior to accountability or physical transfer to a DRMO. This code will not be assigned to ammunition. Explosives and dangerous (AEDA) articles.
Q	Demilitarization not required. SLI are non-MLI and are identified and licensed by the US Department of Commerce through the Export Administration Regulations (EAR), 15 CFR, and indicated on the Commerce Control List (CCL), Part 799.1. Each CCL entry is preceded by a 5-digit Export Control Classification Number (ECCN) and those ECCNs ending in the letter “A” or “B” are defined by DoD as SLI. These items are subject to Import Certification and Delivery Verification (IC/DV) control and other Trade Security Controls at disposition.
R	Demilitarization in accordance with item specific instructions, e.g., Ammunition Orders, Technical Orders, Manuals, Publications.
Y	Demilitarization in accordance with special instructions for Crypto materiel.

