The world has entered an age of environmental concern. GM shares this concern and wishes to comply with all local, state, federal and international regulations and laws that impact the packaging of our service parts. We caution all of our suppliers to be aware of the materials they are using and being supplied. GM supports the recycling of packaging materials. Materials such as plastics and corrugated should be identified with standard recycling symbols that indicate content. Other materials should be identified in a standard manner consistent with existing laws and regulations.
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Introduction

Purpose: To clearly define packaging, shipping, and labeling requirements for General Motors Customer Care and Aftersales (GM CCA) suppliers. This document and supporting packaging information can be found in www.gmsupplypower.com.

The path is:
Click on the “Collaborate” tab
Document Library >
Supply Chain >
Customer Care & Aftersales (CCA) >
North America >
GMCCA Packaging >
Packaging Standards and Requirements

Scope: Unitized and bulk packaged parts shipped to GM CCA North America receiving points (i.e. Processing Centers, 3rd Party Packager/Consignment, GM CCA Parts Distribution Centers, or directly to the customer).

Supplier Responsibility

• ALL suppliers, bulk or unitized, are required to register for the GM CCA packaging website, https://gm.gpkg.com, see layout below
• Parts must arrive to GM CCA without damage, rust/corrosion, or contamination and in a SALEABLE condition.
• Packaging must meet the requirements of this manual, unless otherwise documented in a GM CCA packaging specification.
• Country of Origin certification and package marking (unitized) or part marking (bulk) are REQUIRED.
• All incoming material to GM CCA receiving points must be identified with a GM 1724 label.

Delivery Performance Rating: A supplier’s conformance to this document and adherence to packaging standards is factored into the supplier’s delivery performance rating, and failure to comply can result in a Problem Report & Resolution (PR&R).

All questions regarding GM CCA Packaging, e-mail: spopackaging@gm.com

Below is a screenshot of the https://gm.gpkg.com GM CCA packaging website dashboard.
Bulk verses Unitized-Definitions

Suppliers can visit, the GM CCA packaging website (https://gm.gpkg.com) on a part number basis to determine if a part is to be unitized or sent in bulk. Suppliers should also check their contracts since some parts might be set up for unitized, however the supplier would be sending to 3rd party bulk for 3rd party to package. Suppliers should look at the USB field on the website:

- If there is an “S” in the USB field=source unitized (could be 3rd party packaged)
- If there is a “U” or “B” in the USB field=bulk

Definition of Bulk

- Several parts in shippable container where packaging does not contain GM CCA brand packaging/labeling.
- Supplier is design responsible for bulk specification.
- Expected to meet requirements in this manual.
- If supplier is using packaging to protect parts in shipment, supplier’s graphics are not acceptable for shipping in packages containing only one part. Supplier graphics are acceptable for bulk shipments if shipping multiple parts in a container.
- Parts that are comprised of two or more pieces must be assembled, attached, combined or put together to form an easily identifiable single unit.
- Parts that are manufactured as multiple parts on a roll, coil, or substrate must be easily separated into a single part.
- Parts that are excessively packaged, above the necessary level for part protection, may be subject to a PRR.
- Bulk parts should be shipped in packages that are proportionally sized to the part(s) being shipped.
  - Minimize void space within containers to maximize cube utilization of containers.

Shown below is example of bulk part in the http://gm.gpkg.com website, USB=U and shows a current Processing Plant” is 077.

Below are examples of bulk packaging:
Definition of Unitized

- Individually package parts with GM CCA brand graphics per GM CCA packaging specification.
- Expected to meet requirements in this manual.
- Supplier graphic or any additional supplier labels, including suppliers name are **not acceptable** on any packaging materials, unless documented on a GM CCA specification.
- Packaging specifications can be found at http://gm.gpkg.com

Shown below is example of a sourced unitized part on the http://gm.gpkg.com website, note USB=S and the “Current Processing Plant” shows zeros.

Shown below is an example of a 3rd party packaged part, USB=S and shows a “Current Processing Plant” number (not zeros). Supplier is sending bulk part to 3rd party for them to package it.
GM 1738 CCA Packaging Detail Form
Process

The 1738 form serves as a tool for GM suppliers to provide either Bulk or Unitized Packaging Information and to gain GM approval of their proposed packaging concept.

When a 1738 is required, MHSI (Material Handling Systems Inc.) working on behalf of GM CCA will provide an email containing:
1.) GM Part Number
2.) 1738 Form attachment
3.) Packaging direction (bulk or unitized) and
4.) High level packaging concept for source unitized parts as required.

Suppliers will have 10 business days to complete the 1738 packaging detail form, and return it to MHSI.

The completed 1738 packaging detail form will be reviewed by GM CCA Packaging Engineering and either approved or rejected based on the requirements in this GM CCA Packaging Standards & Requirements manual, and the high level source unitized packaging concept. An approval of the 1738 packaging detail form by GM CCA Packaging Engineering will initiate the GM CCA Purchasing Request for Quote (RFQ) process.

Failure to provide a 1738 packaging detail form could result in a Problem Report & Resolution (PR&R).

If suppliers require assistance with the 1738 CCA Packaging Detail From Process please email: spopackaging@gm.com
Rust Free Shipments of Ferrous Parts

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk</td>
<td>✔️</td>
</tr>
<tr>
<td>Unitized</td>
<td>✔️</td>
</tr>
</tbody>
</table>

GM CCA requires that the supplier deliver ferrous parts free of rust, unless stated on the engineer drawing/print which takes precedence. All temporary coatings must not affect part appearance or function, and must be environmentally friendly. Additionally, the temporary coatings must be safe, easy to handle, and easy to remove and dispose of.

GM CCA requires all ferrous parts to remain rust free for three (3) years, including all source unitized parts and the commodities listed below:

- Arms
- Bearings
- Brake shoes
- Bushings
- Crankshafts
- Dampers
- Drums
- Flywheels
- Stamped metal (hinges, brackets, oil pans, struts and straps)

- Frames
- Gears
- Hubs
- Levers
- Manifolds
- Pumps
- Rotors
- Shafts

*Exception for sheet metal parts: 30 days shelf life from date of shipment receipt.

To ensure parts are received in usable condition, GM CCA does NOT approve of the following rust prevention methods:

- Thick grease or wax-like coating that require strong solvents, special cleaning equipment or extra labor to remove.
- Soft coating that hardens with time, and if not completely removed may block or affect other oils or lubricants when part is in use.
- High temperature, water displacing and finger print suppressing oil used in combination with vapor corrosion inhibitors and barrier type package.
GM CCA Country of Origin Requirements

<table>
<thead>
<tr>
<th>Supplier Type</th>
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</tr>
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<tbody>
<tr>
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</tr>
<tr>
<td>Unitized</td>
<td>✔️</td>
</tr>
</tbody>
</table>

Conformance to country of origin requirements and regulations is mandatory to prevent possible marking notices, seizures and/or penalties by Customs Authorities and issuance of PR&Rs to suppliers. Please note that country of origin marking requirements for CCA contracts are different than those for OEM production purchasing contracts. Additional country of origin material – including regulatory citations, definitions, examples, and Canadian and kit specific requirements – are listed in the appendix.

All questions regarding Country of Origin Compliance, e-mail: COOCompliance@gm.com

All questions regarding certifications, contact:
Sandler and Travis Trade Advisory Services, Inc,
Phone: (248) 474-7200 (Ask for GM CCA Team)
E-mail: spoteam@sttas.com

1. Part marking is required. Unless exempt by law, every non-US origin part destined for sale and/or use in the United States is required to be individually marked with “MADE IN”, “ASSEMBLED IN”, “PRODUCED IN”, “PRODUCT OF”, “MANUFACTURED IN”, etc. followed by the English name of the country of origin (no abbreviations) in a legible, obvious, and sufficiently permanent manner to survive normal distribution, storage and handling.

Bulk packaging: Marking is on part packaging

![Bulk packaging example]

COO etched directly onto part, labeled directly on part, or part bagged and labeled. If the country of origin is embossed on the part itself, then the verbiage "MADE IN", "ASSEMBLED IN", etc. does not need to appear on the part.

Unitized packaging: Marking is on packaging

![Unitized packaging example]

Marking on package (ie.; label, carton, bag, etc.)

Placement: The country of origin must be in close proximity and of comparable size (equal to or larger) than any address or other country marked on the part.

2. Part certification is required. Suppliers must return country of origin affidavits and free trade agreement documentation to GM CCA on an annual basis. Documentation must be provided to Sandler and Travis Trade Advisory Services prior to the first shipment of a part each calendar year. Suppliers are required to provide revised country of origin affidavits any time origin changes.
GM CCA Country of Origin Requirements

This section covers CCA contractual and regulatory origin requirements identified in Section 304 of the U.S. Tariff Act of 1930, as amended 19 U.S. Code 1304, and 19 U.S. Code 1202, as well as certain requirements under Canadian law. Conformance to these requirements and regulations is mandatory to prevent possible marking notices, seizures and/or penalties by U.S. Customs.

Country of Origin Marking requirements for CCA contracts are different than those for OEM production purchasing contracts.

Definitions:

When used in this document the following terms shall have the meanings indicated:

Country of Origin – The last location where manufacture or production of a part occurred that resulted in a substantial transformation to that part.


Foreign Origin – A part with a country of origin other than U.S. origin.

Kit – Two or more parts packaged together (but not assembled or further manufactured into a new article). An instruction sheet is not considered a part for purposes of determining if a part number is a kit.

Product Identification Panel – The section of the package or label that displays required part information.

Substantial Transformation – When one or more materials/components are transformed into a new and different article of commerce distinct from the materials from which it was transformed.

Total Direct Costs of Producing or Manufacturing a Part – Includes (a) expenditures on materials incurred by the producer/manufacturer in the production or manufacturing of the parts; and (b) expenditures on labor incurred by the producer/manufacturer that relate to the production or manufacturing of the parts and can reasonably be allocated to the production or manufacturing of the parts. General overhead is not usually included, unless it relates directly to the production or manufacturing of the parts in question and if it can reasonably be allocated to the production or manufacturing of the parts.

Ultimate Purchaser – Means the last person in the United States who will receive the part in the form in which it was imported into the United States. For CCA contracts the ultimate purchase is the retail customer.

Unitized Package – The package to be received by the ultimate purchaser (not CCA).

General Requirements for Country of Origin:

Unless exempted by law, every foreign origin part (i.e. non-U.S. origin parts) destined for sale and/or use in the U.S. is required to be individually marked (each piece or its unitized package) with the English name of the country of origin in a legible, obvious and sufficiently permanent manner to survive normal distribution, storage, and handling. The English name of countries must not be abbreviated.

Note: Products made in the United States DO NOT have to contain the country of origin marking. CCA prefers that supplier NOT mark the U.S. origin parts with the country of origin.
If you have questions regarding CCA country of origin requirements, please contact:
- CCA Country of Origin Compliance Representative COOCompliance@gm.com
- The CCA team at Sandler and Travis Trade Advisory Services 248-474-7200 or spoteam@sttas.com

CCA’s contract terms and conditions require all suppliers to:

1. Provide to CCA, country of origin documentation and any other documentation as referenced in the contract terms and conditions; and

   - If Country of Origin documents are not received prior to the receipt of the shipment, a PR&R will be issued.
   - Country of Origin documents are required annually while the part is on an active contract.
   - The Country of Origin documents should be emailed to your Sandler and Travis Trade Advisory Services business representative or spoteam@sttas.com
   - Kits: The unitizing supplier must supply component percentages on the Country of Origin Affidavit. Any time the origin of the components or percentages change, the supplier must provide a revised Country of Origin Affidavit.

2. Physically mark foreign origin parts (i.e. non-U.S. origin parts) with the country of origin pursuant to the U.S. country of origin marking requirements.

   - If the goods are not marked as required by CCA, a PR&R will be issued.
   - Phrases:
     "MADE IN (COUNTRY)",
     "ASSEMBLED IN (COUNTRY)",
     "PRODUCED IN (COUNTRY)",
     "PRODUCT OF (COUNTRY)",
     "MANUFACTURED IN (COUNTRY)" etc. are acceptable notations to appear on the package.

   - Placement and size of origin marking:
     The country of origin marking on the package must be in close proximity to and of equal or larger size font than the GM address markings. If the GM address or any other word contradicting the country of origin appears on the bottom of the package, then the country of origin marking can be placed on the product identification panel or any panel adjacent to that panel as long as it is of equal or larger size font than the origin contradicting information. If the Country of Origin information will not fit on the product identification panel, use a second label placed near the product identification panel.

   - Canadian Origin Parts:
     CCA ships service parts to Canada; therefore, all parts for which Canada is the country of origin must comply with Canada’s Competition Act, R.S.C.,1985, c C-34 and the Competition Bureau’s Enforcement Guidelines with respect to “Product of Canada” and “Made in Canada” claims and MUST DISPLAY ON EACH PIECE OR ITS UNITIZED RETAIL PACKAGE ONE OF THE FOLLOWING STATEMENTS:

     - (1) "MADE IN CANADA WITH IMPORTED PARTS/MATERIALS / FAIT AU CANADA AVEC DES PIÈCES/MATÉRIAUX IMPORTÉS" - Only permissible if: (a) the last fundamental change of the parts in form, appearance or nature occurred in Canada, such that the parts existing after the change are new and different parts from those existing before the change; and (b) at least 51% of the total direct costs of producing or manufacturing the part were incurred in Canada. By placing this statement on a part, you represent and warrant that the part meets the requirements and you also agree to provide CCA with substantiating documentation upon request.

OR
(2) "MADE IN CANADA / FAIT AU CANADA" - Only permissible if: (a) the last fundamental change of the parts in form, appearance or nature occurred in Canada, such that the parts existing after the change are new and different parts from those existing before the change; and (b) at least 98% of the total direct costs of producing or manufacturing the part were incurred in Canada. By placing this statement on a part, you agree represent and warrant that the part meets the requirements and you also to provide CCA with substantiating documentation upon request.

OR

(3) "ASSEMBLED IN CANADA WITH IMPORTED PARTS/MATERIALS / ASSEMBLÉ AU CANADA AVEC DES PIÈCES/MATÉRIAUX IMPORTÉS" – Permissible if neither of the above criteria apply and if the last substantial transformation of the good occurred in Canada.

French Language Requirement: If a country of origin marking is used, the French language equivalent must also be included on the part or its unitized package. While you remain responsible for using the correct translation, the following examples can be used as guidelines:

- “MADE IN (COUNTRY)” = FAIT AU (PAYS) OU FAIT EN (PAYS) OU FAIT À (PAYS)
- “ASSEMBLED IN (COUNTRY)” = ASSEMBLÉ AU; (EN) OU (À) (PAYS)
- “PRODUCED IN (COUNTRY)” = PRODUIT (AU) OU (À) OU (EN) (PAYS)
- “PRODUCT OF (COUNTRY)” = PRODUIT DU (PAYS)
- “MANUFACTURED IN (COUNTRY)” = USINÉ OU MANUFACTURÉ (AU) OU (À) OU (EN) (PAYS)

Certain parts are exempted from physical marking of the country of origin, but the outside of each shipping container must contain the country of origin:

- Bolts
- Nuts
- Washers
- Screws
- Bulk Sheet Metal

Kits with Foreign Origin Content:

U.S. Customs regulations, Title 19 section 134.14, have specific requirements for kits produced for sale and/or use in the U.S. containing foreign origin content. The regulations require that the country of origin of each part in the kit must be clearly identified on the package or label.

- Kits containing all components that are made in the same foreign country must display that foreign country on the package or label:
  - Example 1: Kit contains 100% components made in Japan
    Proper Marking: "MADE IN JAPAN / FAIT AU JAPON"
  - Example 2: Kit contains 100% components made in Canada using 100% Canadian parts and materials.
    Proper Marking: "MADE IN CANADA / FAIT AU CANADA"

- Kits containing components made in more than one country must display each foreign country on the package or label:
  - Example 1: Kit contains (i) 25% of components made in Canada with 10% imported parts and materials; (ii) 25% of components made in Mexico; and (iii) 50% of the components made in the U.S.A.
    Proper Marking: "CONTAINS COMPONENTS MADE IN CANADA WITH IMPORTED PARTS/MATERIALS, MEXICO / FAITS AU CANADA AVEC DES PIÈCES/MATÉRIAUX IMPORTÉS, DU MEXIQUE"
  - Example 2: Kit contains 25% of the components made in Brazil, 25% of the components made in Mexico and 50% of the components made in the US.
    Proper Marking: "CONTAINS COMPONENTS MADE IN BRAZIL, MEXICO / CONTIENT DES COMPOSANTS FAITS AU BRÉSIL, MEXIQUE"
GM 1724 Transportation Label

<table>
<thead>
<tr>
<th>Supplier Type</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Bulk</td>
<td>✔</td>
</tr>
<tr>
<td>Unitized</td>
<td>✔</td>
</tr>
</tbody>
</table>

GM 1724 labels are a series of label format standards set by GM to facilitate global trade between GM and its trading partners. All incoming material to GM CCA receiving points must be identified with a GM 1724 label affixed either on two adjacent side panels or on opposite sides of each shipping container or product load, unless supplier is using specified distribution label (see Distribution / Unit Load Labeling).

Supplier Portal: www.gmsupplypower.covisint.com
- User is required to have a user name and password to access; register if password has not been created.

Path: Collaborate tab > Document Library > Supply Chain > Labels > GM1724 Global Transportation Label Standards
- 1724A.pdf (Container Shipping Label) - used on individual boxes, i.e. small carrier, Fed Ex, etc.
- 1724B.pdf (Pallet/Load Shipping Label) - used to identify a pallet load when all parts on the pallet are the same.
- 1724C.pdf (Mixed Load Shipping Label) - used to identify a pallet load of mixed parts (i.e. different part numbers on the same pallet).

For additional information and FAQs on GM 1724 Labels, see the following pages.

1724-A Container Shipping Label

1724-B Same Part Number

1724-C Mixed Load
GM 1724

GM 1724 Auto ID labels are a series of label format standards set by General Motors to facilitate global trade between GM and its trading partners.

FAQs for the GM 1724 Label

1) Q: Who can supply software that will print the PDF417 2D barcode?
   A: GM cannot recommend specific suppliers, however, Easy Label, Loftware and Label View all are capable to print compliant labels.

2) Q: I do not receive certain data from CCA. What do I do?
   A: The following data is not transmitted by CCA and not necessary to print on the labels:
   • Material Handling Code
   • Optional special symbol
   • Reference sub-block #1
   • In reference sub-block #2 the container type will not be submitted

3) Q: How are dock codes transmitted?
   A: For CCA warehoused material, the CCA EDIFACT DELFOR LOC+11 segment will be populated with a numeric character > 0 when the dock is assigned at the CCA destination. When no dock code is assigned by CCA, suppliers may leave the dock code segment of the GM 1724 label/barcode blank.

4) Q: Does the weight have to be in kilograms?
   A: Yes

5) Q: What is the difference between GM 1724-A, GM 1724-B and GM 1724-C labels?
   A: **GM 1724-A:** This label is used on a corrugated shipping box and should be on adjacent or opposite corners of each carton.
   • Note: For both ACDelco and GM unitized parts shipped on a pallet, use the label that appears on the specification and you do not need to use the 1724-A.
   • If shipping small carrier, ie. Fed Ex, then a 1724-A is required.
   • It is permissible to put both the specified label and the 1724-A label onto packages.

   **GM 1724-B:** This label is used to identify a pallet load when all the parts on the pallet are the same part number. GM refers to this as the Master Label.
   • This label identifies the quantity of shipping containers (distribution packs) on a pallet as well as total pieces on the pallet.

   **GM 1724-C:** This label is used to identify a pallet of mixed part numbers (different part numbers on a pallet).

---

Example of 1724-A label on box. Example of 1724B-all same part number load, 1724-A label on each box and 1724-B on pallet. If material mixed part #s, use 1724-C.
6) Q: What do I do when CCA orders less than standard pack quantities?
A: For the 1724-B and C labels, add “NON STD PK” verbiage when orders are less than standard pack.

7) Q: Does GM CCA transmit PCI segments via DELFOR?
A: No, GM CCA does not transmit PCI segments. This area on the label can be left blank on the label.

8) Q: What quantity should I enter onto the label that is directly placed onto the carton?
A: The quantity on the label is to reflect the actual amount of pieces in the specific container that is being labeled and not the total customer order. Example, the customer order is 1000 pieces and the quantity in box “A” is 100 pieces, “100” should be in the “QUANTITY” field on that label on box “A”.

9) Q: What if I have a mixed load and more than eight (8) part numbers?
A: If using a mixed load label (1724-C) and if you have more than eight (8) part numbers, use a second 1724-C and list the additional part number(s). Also if using two labels in this instance, only put the total weight on one label, leave the other label’s total weight blank.

10) Q: Can the lower portion of the labels be used for supplier information?
A: Suppliers can use the bottom left corner of the 1724-A label, and bottom right corners of the 1724-B and 1724-C label for their own internal information (and symbols) if needed.

11) Q: What do I do if there are multiple countries of origins (COOs) and these will not fit on the 1724 label?
A: You may leave this area blank. Any custom documents will address the COO information if required.

12) Q: I am using stretch wrap around my pallet, where do I affix the label?
A: If using stretch wrap, affix the 1724 labels to the outside of the wrap.

13) Q: I am a ship direct supplier, do I need to use the 1724 label?
A: No, but permissable to do so if needed.
Package Label & Layouts

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk</td>
<td></td>
</tr>
<tr>
<td>Unitized</td>
<td>✓</td>
</tr>
</tbody>
</table>

The following sections further define labeling requirements for GM CCA:
- Unitized Label Layouts
- Graphic Package Layouts
- Standard Core Return Layouts
- Distribution Container & Pallet Unit Load Labeling

Label Brand Portfolio
GM CCA’s customers require use of several different graphics on our labels and packages. The most common are GM and the ACDelco line of products, GM Accessories, GM VehicleCare, and Chevy Performance are also valid types of graphics. Graphics are controlled by the packaging specifications. Supplier graphics, including supplier’s name are not acceptable on packaging materials.

Note: The following GM & ACDelco Security Labels can only purchased from OpSec Security, contact: gmcustomerservice@opsecsecurity.com

Unitized Label Layouts
This standard is intended to establish the base for which the imprinting of product identification information onto packages can be held to the quality expectations of GM CCA. The printing quality must provide a level of legibility that will eliminate any potential misinterpretation of part number identification.

GM CCA product identification standards (or where applicable, individual specifications or special packaging instructions) must be referenced for the exact layout, format and location of imprinted information. The most common label layouts are further defined on the next pages.

For suppliers who may be interested in purchasing pre-printed labels, GM’s single approved security label supplier, OpSec Security Inc., offers this service. The pre-printed part number security labels would be provided by OpSec Security per the following product identification standards. The labels would arrive ready to be stamped with a date code and applied to the unitized package.

For more information on this opportunity, contact OpSec Security at gmcustomerservice@opsecsecurity.com
**75 mm x 50 mm Security Label Layouts**

**GM Security Label Layout**

- Font size: Part Number and quantity number to be minimum 18 point size and bold font style. All other information to be minimum 8 point size. One exception is if you need to print the Canadian Country of Origin statement, font can be minimum of 5.5 point size.
- Alignment of product identification onto a label: Left side to be aligned with GM or ACDelco logo.
- D.O.T. annotation is only required for certain parts and is shown as a 1238 label requirement.
- The Core Group (CG) Number is only required for certain parts and is shown with a number in the Core Group Field (Core Group).
- Acceptable fonts are: For GM=Arial, Helvetica (except oblique) or Stone Serif
  For ACDelco=Arial, Eurostile, Universe 47 or 67 Condensed

**ACDelco Security Label Layout**

The above labels can only be purchased from OpSec Security, email: gmcustomerservice@opsecsecurity.com

Both labels must follow these requirements:

- Font size: Part Number and quantity number to be minimum 18 point size and bold font style. All other information to be minimum 8 point size. One exception is if you need to print the Canadian Country of Origin statement, font can be minimum of 5.5 point size.
- Alignment of product identification onto a label: Left side to be aligned with GM or ACDelco logo.
- D.O.T. annotation is only required for certain parts and is shown as a 1238 label requirement.
- The Core Group (CG) Number is only required for certain parts and is shown with a number in the Core Group Field (Core Group).
- Acceptable fonts are: For GM=Arial, Helvetica (except oblique) or Stone Serif
  For ACDelco=Arial, Eurostile, Universe 47 or 67 Condensed
QR Code Specification

GM CCA Global Security Label QR Code (2D barcode) Specification Requirements:

- Minimum thermal transfer printer print head requirement 203dpi
- QR Version Type: Version 3, (3 pixels per module)
- Approximate Dimensions of QR Code: 12mm x 12mm
- Approximate total dimensions of QR Code area including white space: 15.2mm x 15.2mm
- Location: In line with GM PN and Qty as shown in the example below. Not to interfere or cover the pre-printed label serialized number, part number, Qty or barcode.

Data encoded into QR code*:
1. 8 digit GM Part Number (always 8 digits)
2. English part name (if available, maximum 9 characters).
3. French part name (if available, maximum 15 characters). Can be substituted with regional required language.
4. Spanish part name (if available, maximum 15 characters). Can be substituted with regional required language.
5. Note, each data field must be separated by a comma. Add commas even if a data field is blank.

Examples: 12345678,ENGLISH,NOM FRANÇAIS,NOMBRE ESPAÑOL
87654321,ENGLISH,,

GM Security Label Layout

ACDelco Security Label Layout
Label Layouts (2¾" x 1½" and 4"x 2¼")

GM Standard Label Design Elements (2¾" x 1½" label)

BOTH LABELS MUST FOLLOW THESE REQUIREMENTS:
* The shaded areas shown above represents the variable imprint area.

Information within this area is to be located as shown when specified or required by law.

- Part Number and quantity number to be minimum 18 point size and bold font style.
- Alignment of product identification onto a label: Left side to be aligned with GM logo.
- D.O.T. annotation is only required for certain parts and is shown as a 1238 label requirement.
- The Core Group (CG) Number is only required for certain parts and is shown with a number in the Core Group Field (Core Group).
- Acceptable fonts are: Arial, Helvetica (except oblique) or Stone Serif.

2-1/4” x 1-1/2” LABEL: All other information to be minimum 8 point size One exception is if you need to print the Canadian Country of Origin statement, font can be minimum of 5.5 point size. Part name is omitted from this size label.

4" x 2-1/4" LABEL: All other information (description and variable text) to be minimum 10 point size and regular font style. If printing part name, name to be trilingual and capitalized.
1203, 1204 & 0A084657 Labels

Imprinting Layouts

Note: When a line is omitted, all information moves up to fill space. All information must be centered and equally spaced.

ACDelco Part Number 18 pt. (167') ± 10%
GM Part Number 18 pt. (167') ± 10%
Quantity 18 pt. (167') ± 10%
Group Number* 12 pt. (use periods, no dashes) (11') ± 10%
Core Group and D.O.T. 12 pt. (11') ± 10%
Source Code and Date Code 12 pt. (11') ± 10%
Country of Origin 12 pt. (11') ± 10%

* Group Number
Three digit group numbers shall have one leading zero (i.e. 065). All other group numbers will have no leading zeros (i.e. 1266, 10.373).

Size 48pt. (44") ± 10%
Part Number 48pt. (44") ± 10%
Quantity 18pt. (167') ± 10%
Group Number* 18pt. (use periods, no dashes) (167') ± 10%
Core Group/D.O.T. 18pt. (167') ± 10%
Source Code and Date Code 18pt. (167') ± 10%
Country of Origin 18pt. (167') ± 10%

Example of label placement on label only parts.

Fold label over to adhere backing of label together. Keep barcode as whole.

Barcode
(Code 39 follow ANSI specifications)

100% UPC Version A Bar Code
(Follows ANSI specifications)

Rev 8/17
GM Standard Core Return Label Design Elements (4" x 4" label)

Use this label when specified by label 0B034274.

4" x 4" printed example

GM Part Number (no leading zeros)

Date Code

Source Code

Package (Container) Quantity

Core/Núcleo

GM Part Number (no leading zeros)

GM# 12345678

01234 14062 GR. 12.270 CG AG123/D.O.T.

Genuine

Made in XXXXXXXXXX

General Motors LLC

Detroit, Michigan 48243

www.myservicedirect.com

0B034274

Genuine

GM# 12345678

General Motors LLC

Detroit, Michigan 48243

www.myservicedirect.com

Fascia: Return without packaging. Peel removable label, attach to exterior of core.
Non-fascia: Return in original packaging or alternate package marked with removable label
Non-fascia: Retour de l'article dans l'emballage d'origine ou emballage alternatif avec étiquette amovible.
Faja: Retorno sin empaque. Piel etiqueta desmontable, adjuntar a exterior de core.
No faja: Retorno en empaque original o paquete alternativo marcado con etiqueta extraíble.

Contact supplier below to obtain this label if needed:
Advanced Marketing Partners
Phone: 734-422-7180
email: marks@advancedmarketingpartners.com

- The shaded areas shown above represents the variable imprint area. Information within this area is to be located as shown when specified or required by law.
- Part Number and quantity number to be minimum 18 point size and bold font style.
- All other information (description and variable text) to be minimum 10 point size and regular font style.
- Acceptable fonts are: Arial, Helvetica (except oblique) or Stone Serif.
- D.O.T. annotation is only required for certain parts and is shown as a 1238 label requirement.
- The Core Group (CG) Number is only required for certain parts and is shown with a number in the Core Group Field (CORE GRP).
- Parts with a Canadian country of origin should state: “MADE IN CANADA WITH IMPORTED PARTS/ AVEC PIÈCES IMPORTÉES"
Contact supplier below to obtain this label if needed:
Advanced Marketing Partners
Phone: 734-422-7180
email: marks@advancedmarketingpartners.com

* The shaded areas shown above represents the variable imprint area. Information within this area is to be located as shown when specified or required by law.
• Part Number and quantity number to be minimum 18 point size and bold font style.
• All other information (description and variable text) to be minimum 10 point size and regular font style.
• Acceptable fonts are: Arial, Eurostile and Universe 47 or 67 Condensed.
• D.O.T. annotation is only required for certain parts and is shown as a 1238 label requirement.
• The Core Group (CG) Number is only required for certain parts and is shown with a number in the Core Group Field (CORE GRP).
• Parts with a Canadian country of origin should state:
“MADE IN CANADA WITH IMPORTED PARTS/ AVEC PIÈCES IMPORTÉES”
GM Amazon Label Design Elements

Use this label when specified by imprint spec I-0B035947.

Two options shown below:

**OPTION 1:**
Supplier can print both barcodes (code 39 and UPC-A) on same label, this format can only be used for the 4" x 2-1/4" size label labels.

**OPTION 2:**
Supplier can add a second plain white label with the UPC-A barcode as shown below. (GM# can and should be printed on smaller UPC-A barcode label to avoid part number mixup).
### Approved Label Supplier List

<table>
<thead>
<tr>
<th>Supplier Name</th>
<th>Address</th>
<th>City</th>
<th>State</th>
<th>Contact Name</th>
<th>Telephone</th>
<th>Email</th>
<th>Website</th>
<th>Available GMCCA Label Specification #’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced Systems &amp; Forms</td>
<td>27880 Joy Road</td>
<td>Livonia</td>
<td>MI</td>
<td>Mark Schmidt</td>
<td>734-422-7100 x 19</td>
<td><a href="mailto:marks@advancedmarketingpartners.com">marks@advancedmarketingpartners.com</a></td>
<td><a href="http://www.advancedmarketingpartners.com">www.advancedmarketingpartners.com</a></td>
<td>0A045771, 0A045773, 0A045772, 0A045772, 0A045775, 0A084596, 0A084657, 0A085450, 1427, 0A085909, 0A083470, 0B034231</td>
</tr>
<tr>
<td>Box Arthur Corp.</td>
<td>PO Box 10, 3190 Tri-Park Dr</td>
<td>Grand Blanc</td>
<td>MI</td>
<td>Tressela Gilbert</td>
<td>910-636-1777 x109</td>
<td><a href="mailto:tressela.gilbert@macarthur.com">tressela.gilbert@macarthur.com</a></td>
<td><a href="http://www.macarthurcorp.com">www.macarthurcorp.com</a></td>
<td>0A042362, 0A044526, 0A045772, 0A045773, 1724A-C</td>
</tr>
<tr>
<td>OpSec Security, Inc.</td>
<td>GM Approved Global Security Label Supplier</td>
<td>Susan Bond</td>
<td></td>
<td></td>
<td></td>
<td><a href="mailto:gmcustomerservice@OpSecsecurity.com">gmcustomerservice@OpSecsecurity.com</a></td>
<td><a href="http://www.opsecsecurity.com">www.opsecsecurity.com</a></td>
<td>0B037000, 0B038782</td>
</tr>
<tr>
<td>Whitlam Label Co., Inc.</td>
<td>24600 Sheardot Ave</td>
<td>Centerline</td>
<td>MI</td>
<td>Hannah Peterson</td>
<td>586-757-5100 x272</td>
<td><a href="mailto:hannahpeterson@whitlam.com">hannahpeterson@whitlam.com</a></td>
<td><a href="http://www.whitlam.com">www.whitlam.com</a></td>
<td>0A042362, 0A044526, 0A045772, 0A045773, 1724A-C</td>
</tr>
</tbody>
</table>
Ship Direct – REQUIRED Logistical Unit Identifiers

All Ship Direct Vendors are required to provide Serial Shipping Container Code (SSCC) identifiers on every freight piece. A freight piece can be one single carton or a full pallet load of product shipped direct to the GM Customer. These identifiers carry carton content data in a UCC-128 barcode format.

SSCC (Serial Shipping Container Code)
This is an industry-wide inbound process requiring Advance Shipment Notice (ASN) with unique Serial Shipping Container Code (SSCC) for every individual freight piece. This unique identifier SSCC must be mentioned in ASN and provided in both text and barcode form on each individual freight piece. By scanning this SSCC code, shipments can be linked to the product information available in ASN and all items under shipment can be received into the building without having to scan each carton on a pallet or within a shipping container.

Each SSCC label should contain the following:

- Each freight piece must have a Serial Shipping Container Code (SSCC) label in compliance with UCC-128 standards. Refer to www.uc-council.org for further information on UCC standards and implementation.

- A scannable SSCC-18 barcode preceded by the two leading 00s as the application identifier (AI). This application identifier is available to the supplier to increase the capacity of the Serial Reference. The AI has no defined logic. When scanned by a barcode scanner the parentheses will be omitted. A sample carton or pallet load label is shown below.

- Once assigned to a shipping container, an SSCC number shall not be reused to identify another shipping container for a minimum of 12 months from the time it is shipped.

- The dimensions of the SSCC label are 6” x 4” (HxW).

- The SSCC label should be placed 1” – 2” from the side and the top edges of carton. The label should not be placed over a carton seam, or in a place where it might become obstructed by tape or another label, rendering it not scannable. SSCC labels should not be placed on the top of the carton.

- Pallet labels should be placed squarely (not on an angle) on adjacent or opposite sides of the pallet. If the pallet is wrapped in plastic, the pallet SSCC labels must be placed on the outside of the plastic wrap.

High Level Process:

Sample SSCC Label:
1.72" x 0.89"  |  2.28" x 0.89"

4.0" x 1.04"

2" x 1.25"  |  2" x 1.25"

4" x .8"

4" x 2"

---

(00)0009999900002975565

---

(00)000999990002975565

---

Application Identifier

Extension Digit

GS1 Company Prefix

Serial Number

Check Digit
Graphic Carton Imprint Layouts
All printing on graphic cartons must conform to unitized label layouts.

Certain information must be on the carton:

<table>
<thead>
<tr>
<th>GM Packages</th>
<th>ACDelco Packages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date code/source code</td>
<td>Date code/source code</td>
</tr>
<tr>
<td>Country of Origin</td>
<td>Country of Origin</td>
</tr>
<tr>
<td>GM Part Number</td>
<td>GM Part Number</td>
</tr>
<tr>
<td>Barcode</td>
<td>Barcode</td>
</tr>
<tr>
<td>Quantity</td>
<td>Quantity</td>
</tr>
<tr>
<td>Line Code</td>
<td>ACDelco Part Number</td>
</tr>
</tbody>
</table>

The product identification is to be located on the carton front end panel. When placing product identification directly onto a carton, it can be applied in the following ways:
1) Imprinted directly onto a graphic carton on the white/non-graphic area of package.
2) Printed onto a white label then applied to a graphic carton with label placed on non-graphic area.

If graphic carton is preprinted with the variable data (GM#, ACDelco# and barcode) you do not need to print the date code, source code, group #, line code or quantity.

If imprinting with limited space on a carton the format/point size to be adjusted according to package material width and height. Minimum font size is 8 point. Product name can be omitted from the end panel when there is insufficient space. Barcodes may be placed on adjoining panels when space is limited.
Graphic Polybag/Film/Cohesive Paper Imprint Layouts Examples

Label layout must conform to the “unitized label layouts” section of this manual.

- Product Identification can be preprinted, imprinted or plain label placed onto the graphic packages.
Printing Requirements

Product ID cannot be handwritten onto a label or package.

Character Clarity
- Characters shall have clear and open center holes. (See illustration to the right.)
- Characters cannot have breaks or gaps in their body (X) or missing ends, tails or sections (Y). (See illustration to the right.)
- Printing must be free of spotting, streaking, smudging and smearing.
- Marks caused by rubber type base edges are unacceptable.
- Characters shall have crisp, non-jagged inner and outer perimeter edges with no visible wicking or bleeding.

Character Density
Character density must be such that it will pass one of the following tests:
1) When measured with a X-Rite densitometer, the density value must be greater than 1.00 with a tolerance of -.30.
2) When measured with a RJS Enterprises Codascan, the print contrast signal (PCS) value must be a minimum of .75.

Ink Color
Labels:
- Imprinting ink color to be black unless specifically excepted by special individual container artwork, or special packaging instruction.
Imprinted chipboard and corrugate containers:
- Ink color can be black or the same color as the printed carton graphics.

Alignment-Vertical
- Characters must be positioned 90˚ to the horizontal edge of the container graphics, or label graphics or container edge for non graphics containers) whichever is applicable within ±3˚. (See illustration to the right.)

Horizontal
- Characters must be in line with each other on a horizontal line within ±5% of the character height.
- The horizontal line must be parallel to the container graphics or container edge (or non-graphics containers) within ±3˚. (See illustration to the right.)

Type Style Requirements
Acceptable style fonts include:

GM Parts Graphics
- Arial
- Helvetica (except oblique)
- Stone Serif
ACDelco Graphics
- Arial
- Eurostile
- Univers 47 Condensed
- Univers 67 Condensed
Date Codes

Every service part that is packaged is to have a date code designating the unitizing date (the date the part is packaged or is labeled) imprinted or stamped. This date code is to be included on the product identification label or imprinted package.

NOTE: The date code should be the actual date the part is packaged but can be +/- 2 days of the pack date. Example, part packed out on February 2, 2017 date code can be 17031 to 17035.

Shown below is the required layout:

```
The date code includes the source code followed by a space and then the two digit year and then the three digit Julian date.
Example: These parts were unitized on Feb 2nd, 2017.

01234 17 033
Source Code Year Julian Date
(Example) (2017) Date
To appear on package: 01234 17033
```

The source code is the GM CCA five digit source code as established by the GM CCA Global Supply Chain Department. It is also available in the “Packaging Label Information” file in www.gmsupplypower.covisint.com. The source code that is shown on the package is the source that actually packages the part.

D.O.T. Requirement

The Federal Motor Vehicle Safety Standard Certification Requirement (D.O.T.) is mandatory when specified by label 1238. If space limitations exist which prohibit the inclusion of this information with the product identification, alternate provisions must be made to include this information elsewhere on the package; i.e.: Use of GM CCA 1238 Label for D.O.T. identification.
Barcodes

AB scannable and human readable barcodes are required on all packages, and must follow the unitized label layouts. There are three barcode symbologies used depending on the packaging specification. Examples of each are below.

1) **GM product line**: Code 39 barcode is used for the merchandise and distribution packages. The standard barcode required is the Uniform Symbology Specification Code 39 as defined by AIM USA and approved by ANSI (American National Standards Institute).

2) **ACDelco product line**: UPC Version A barcode on the merchandise package required in place of the Code 39 barcode. UPC symbology is administered by the Uniform Code Council.

3) **ACDelco product line**: The UCC-14 (I 2 of 5) barcode is required on full distribution packages and pallet loads.

The standards for the two barcodes may be obtained from the following sources:

- AIM USA - www.aimglobal.org
- Uniform Code Council - www.gs1us.org

The quality standard for barcodes is ANSI X3.182, *Barcode Print Quality - Guideline*. GM CCA requires a quality level of A or B. A quality level of C will require improvement. A quality level of D or F will not be acceptable for sale and will require rework. ANSI X3.182 can be ordered from: American National Standards Institute - www.ansi.org

If a part is specified for a label only, do not wrap the label around the part so the barcode becomes unscannable.

**GM Product Line: Code 39**

- The data encoded in the Code 39 barcode is the GM part number only. No leading zero’s, no asterisks and no data identifiers. The Code 39 barcode “field” should be centered on the label.
- Symbol size for Code 39 is variable. The height is .2 inches or 15% of length whichever is greater. The length is determined from the number of characters printed and the x and n dimension chosen for a particular piece of printing equipment.

Example of a code 39 barcode:

![Code 39 Barcode Example](image)

**ACDelco Product: UPC Version A**

Example of a UPC-Version A barcode:

![UPC Version A Barcode Example](image)

**ACDelco Product: UCC-14 (I 2 of 5)**

Example of a UCC-14 barcode:

![UCC-14 Barcode Example](image)
Non-Graphic Merchandise Pack Label Placement
The product identification label for non-graphic merchandising cartons is to be on the carton’s smallest (width) panel. This label should be centered and be placed at upper edge of panel. If the width panel is too small to accommodate the label, place label on face panel. The label should be easily visible to the receiving personnel, and consistently facing the same direction. If package has up arrows, the product identification label then should be placed on the up arrow panel unless otherwise specified.

DO NOT:
- Staple through the label
- Tape over the label
- Place label over the box certification

Distribution/Unit Load Labeling
The second level of packaging is called the distribution package or shipping container. If the specification does not specify the distribution container, the supplier has the flexibility to choose their own standard containers. The distribution label required for the shipment will be designated in the specification along with the appropriate barcode. In addition, a GM 1724-A label is used on individual boxes shipped without a pallet (ie. FedEx shipment of one box).

GM Genuine
Follow same requirements as shown the “GM Genuine Layouts” page with exception of replacing package quantity (usually 1) with distribution case quantity. Placement of this label is to be centered and be placed at upper edge of the carton end panel if possible.

See distribution label layout below for GM parts numbers. This layout includes Code 39 bar code.

The format shown is also used for the GM Accessories GM Vehicle Care and Chevrolet Performance Parts labels.
ACDelco
If the product is ACDelco it will also require a UCC-14 bar code. The only exception is a partial (not full) pallet quantity in which a UCC-14 bar code is not required on the label, though all other information is still required.

ACDelco Identification
Follow same requirements as shown on the “ACDelco Layout” section with two additional requirements:
- Use the UCC-14 bar code.
- Use distribution case quantities in place of merchandising package quantities.

If shrink filming (stretch wrapping, etc.) ACDelco graphic cartons together to create a distribution package you only need to place a UCC-14 barcode label with distribution quantity on length side panel of distribution package.

The Product Identification and UCC-14 bar code can be printed in the following manners:
- a) plain white label - with graphic label (shown below - Option A)
- b) bottom of graphic product identification label (shown below - Option B)

Refer to the barcodes page in this manual for barcode sizes. Minimum barcode size including human readable characters is 3.75” wide x 1.0” high when printing onto a label. If using Option A below, put both the ACDelco label and UCC-14 label on the same panel if room permits. If not enough room for both labels, put the ACDelco label on the end panel.

Placement of the UCC-14 is on the elongated panel, 1.25” from bottom edge of the container and no closer than .75” from the container’s edge.

**Option A - Label #0B038782**
- **Scenario A**
  - Note: This is the standard ACDelco label (0B038782, 75x50mm shown below.)

**Option B - Label # 0A060856**
- **Scenario B**
  - Note: The option “B” label is bigger than the Option “A” label to accommodate the UCC barcode. The size below is 6” x 4”.

The clear edge of the symbol must be no closer than 0.75” from the edge of the container.

(1.25” dimension = bottom of vertical symbol bars to bottom of carton.)
Unit Load UCC-14
When UPC barcodes are specified for pallet loads on source unitized material and the pallet loads are full pallet loads of
the same GM part number (not partial), then a UPC shipping container code UCC-14 is required. Do not put a UCC pallet
barcode on pallet of partial loads. The below example shows the location of the GM 1724-B labels used on unit loads.
Place two GM 1724-B labels on adjacent or opposite side panels.

The UCC-14 for a pallet load will have a different number system character (first digit in the bar code series) than the
distribution pack. The check digit may also differ.
Corrugated Shipping Box

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk</td>
<td>✔️</td>
</tr>
<tr>
<td>Unitized</td>
<td>✔️</td>
</tr>
</tbody>
</table>

A corrugated shipping box is required when there’s a miscellaneous order quantity less than pallet load and Small Parcel Distribution (FedEx) will be used to ship parts to GM CCA. The corrugated shipping box must deliver damage free product with full container integrity to the GM CCA receiving point.

Requirements for Corrugated Shipping Box

1. Bags, drums, barrels, bales, cans, pails, or wooden kegs are not acceptable shipping containers for other than granular or liquid materials.

2. Shipping boxes must be constructed of a minimum of 200 # burst test (32 ECT optional) corrugate.

3. Boxes must have a stitched or glued manufacturers joint.

4. Corrugated shipping boxes (unless weight of individual part is over 25 pounds) must not exceed 25 pounds total weight (Weight of the part + package).

5. Box maker’s certificate and recyclable symbol must be printed on bottom of the carton.

6. Do not use loose fill packaging dunnage. Acceptable dunnage materials are clean, wadded Kraft paper, dimple paper, micro foam, bubble wrap, etc. Fill void spaces to prevent movement of parts inside the box during shipping.

- A graphic package cannot be shipped without overpacking into a corrugated shipping box, unless the graphic box is corrugated, minimum 200 lb burst or 32 ECT.

- If shipping parts less than distribution quantity, these parts should be shipped in an overpack proportionally sized.

Graphic Packages + Dunnage + 1724 Label
Fragile Parts + Dunnage + 1724 Label
Small Bulk Parts + Dunnage + 1724 Label

GM Customer Care and Aftersales
Packaging Standards & Requirements
Rev 8/17

-35-
Container Closure

Requirements
The container closure requirements apply to merchandising and distribution containers. These requirements and closure instructions can be found on part specific BOM Report found in: gm.gpkg.com. For individual parts that have a closure material specified and no application instructions, the requirements in the “Container Closure” section must be followed.

The Boxmaker’s certificate must be visible after the closure method is applied. In absence of a specified closure code for cartons, the closure must be capable of containing the part within the carton or bag and arrive to the GM CCA receiving facility damage free.

<table>
<thead>
<tr>
<th>Pkg Type Code</th>
<th>GMSP0 No</th>
<th>Qty</th>
<th>Amount</th>
<th>Name</th>
<th>Source Part</th>
<th>Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>00001207</td>
<td>1</td>
<td>0</td>
<td>LABEL</td>
<td>PRES SEN</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>00002280</td>
<td>1</td>
<td>0</td>
<td>CORR BOX</td>
<td>SPECL</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>00004902</td>
<td>1</td>
<td>4</td>
<td>PLAST PCH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0A011235</td>
<td>1</td>
<td>0</td>
<td>GEN MATERL</td>
<td>CLOSURE</td>
<td></td>
</tr>
</tbody>
</table>

If you see a “C” under PKG type, a closure code has been added. Refer to the closure code specification chart on the next page.
Closure Code Specification Chart

<table>
<thead>
<tr>
<th>CONSTANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAPLER TYPE</td>
</tr>
<tr>
<td>0 – None</td>
</tr>
<tr>
<td>1 – Clinch Stapler</td>
</tr>
<tr>
<td>2 – Stapling Plier</td>
</tr>
<tr>
<td>BAND OPTION</td>
</tr>
<tr>
<td>0 – None</td>
</tr>
<tr>
<td>1 – None</td>
</tr>
<tr>
<td>2 – 3/8” (#1222 steel) or 7/16” (#1339 Polyester)</td>
</tr>
<tr>
<td>3 – 3/8” (#1320 Polyester)</td>
</tr>
<tr>
<td>4 – 3/8” (#9575 Polypropylene)</td>
</tr>
<tr>
<td>GLUE OPTION</td>
</tr>
<tr>
<td>0 – None</td>
</tr>
<tr>
<td>2 – #1307</td>
</tr>
<tr>
<td>TAPE OPTION</td>
</tr>
<tr>
<td>0 – None</td>
</tr>
<tr>
<td>3 – #1278, #1279, #1313 or L-clip #1225</td>
</tr>
<tr>
<td>BAND OPTION</td>
</tr>
<tr>
<td>Number of Lengthwise Bands</td>
</tr>
</tbody>
</table>

<p>| STAPLE OPTION |</p>
<table>
<thead>
<tr>
<th>LEG LENGTH</th>
<th>STAPLE TYPE</th>
<th>SPEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 – NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 – 1/4”</td>
<td>2</td>
<td>9628</td>
</tr>
<tr>
<td>2 – 3/8”</td>
<td>2</td>
<td>1314</td>
</tr>
<tr>
<td>3 – 1/2”</td>
<td>2</td>
<td>1315</td>
</tr>
<tr>
<td>4 – 9/16”</td>
<td>2</td>
<td>1292</td>
</tr>
<tr>
<td>5 – 5/8”</td>
<td>1</td>
<td>1286</td>
</tr>
<tr>
<td>6 – 3/4”</td>
<td>1</td>
<td>1300</td>
</tr>
<tr>
<td>7 – 7/8”</td>
<td>1</td>
<td>1338</td>
</tr>
<tr>
<td>8 – 1-1/4”</td>
<td>1</td>
<td>1308</td>
</tr>
</tbody>
</table>

| BAND OPTION |
| Number of girthwise Bands |
Box Types

Full Overlap Boxes (FOL)
- Staples shall be parallel to, and not more than one inch from the edge.
- Staples shall be used on ends whose widths are eight inches and over, following the same guidelines for spacing between staples.
- Staples shall extend the entire length of the seam and must be within one inch of each end.
- Box width < 5" require one staple centered along the closure.

Regular Slotted Container (RSC)
- Staples shall be used in pairs with one on each side of center seam, but need only be used in an area where outside flaps overlap inner flaps. Also, they shall be used along outer edge when width is eight inches or greater, as shown in the diagram.

Two Panel Folders (TPF)
- Placement of staples in the folder should be parallel to the three open edges and not more than one inch in from the edge.
- Staples shall be CCA #1314, #1315, or #1316, selected by leg length as described above.
- Do not staple in the part.

Five Panel Folders (FPF)
- Placement of staples on long flap are to be in accordance with Full Overlap (FOL) guidelines, and on the end flaps there shall be a minimum of one staple.
**Staples**
- Staples shall have a Rockwell hardness of no less than B-90 and comply with individual GM CCA Staple Specifications selected for the application.
- They must be spaced not more than five inches apart along either the center seam or the closure edge as applicable.
- There shall be a minimum of one quarter inch of board showing between the staple and the closure edge.
- Staples used must clinch the inner flap, which means that they must be driven through two thicknesses of corrugated board and clinched on underside.

Minimum staple leg length must be determined from the following formula:

\[
\text{A} = \text{Crown Width} \\
\text{B} = \text{Two thickness of box} \\
\text{B} + \text{A}/2 = \text{Leg Length}
\]

**Hot Melt Adhesives**
- Glue strips must be applied as shown in the sketches below and extend along their length to fit within one-half inch of the end of the applied flap.
- Glue strips are to be not less than one-quarter inch wide after compression.
- If the box style or size requires alternate patterns, then the adhesive must cover and securely bond not less than 25% of the flap contact area with bonded areas extending to within one-half inch or less of edges or center seam.
- The acceptable closure with hot melt is when the liner paper at glue application will tear when stripped open (50% or more of total area of each glue line).

**Gluing Full Overlap Boxes (FOL)**
- There shall be a minimum of two intermittent strips which are located a minimum of one inch, and a maximum of two inches apart.
- Strips shall be about three inches in length approximately a one inch gap between them or cover approximately 75%.
- The outermost strip shall be a minimum of one-quarter inch and a maximum of three-fourths inch from the outer edge.

**Gluing Regular Slotted Container (RSC)**
- There shall be a minimum of four strips with two on each side of the center line.
- The combined glue strip length(s) shall be a minimum of 75% of total inner flap length.
- The strips shall be a minimum of one inch and a maximum of two inches apart, with the innermost strips being one-half inch maximum from each side of the center seam.
Tape

- Reinforced tape color shall be clear or match the corrugated color of the outer facing.
- Tape shall be 2” or 50mm wide for clear tape meetings specification #1313 (0A040056) or 3” wide meeting specification #1278 or #1279, bidirectional reinforced paper tape.
- A clear plastic tape meeting specification #1313 (0A040056) is preferred. Paper based tapes meeting specification #1278 or #1279 are allowed. Asphaltic, non-recyclable tapes are not allowed.
- No closure tape shall cover any part of any GM logo or product identification label.

Taping Full Overlap Boxes (FOL)
- Tape shall extend the full length of the flap edge (on two edges as shown in diagram).

![Top Loading](image)

Taping Regular Slotted Container (RSC)
- Tape shall extend over ends not less than two and one-half inches (in four places as shown in diagram.)

![End Loading](image)

Taping Five Panel Folder (FPF)
- Tape shall extend the full length of the three flaps.
L-CLIP

- L-Clip closures are strips of pressure sensitive strapping tape running perpendicular to the edge of a container to secure the container flaps. The length of the tape is divided evenly on adjacent panels.
- Strapping tape properties shall be in conformance with specification 0A010114.
- Tape width shall be minimum 1/2 inch. Length of strips shall be four to five inches.
- No tape shall cover any part of any GM Logo or Product ID Labels.

L-Clip Full Overlap Boxes (FOL)

<table>
<thead>
<tr>
<th>Size</th>
<th>Edge Space</th>
<th>Min # of Clips</th>
<th>L-Clip Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box length less than or equal to 6”</td>
<td>¼” - ½”</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>Box length greater than or equal to 6”</td>
<td>¼” - 1”</td>
<td>2</td>
<td>5” Max</td>
</tr>
<tr>
<td>Box width less than or equal to 8”</td>
<td>N/A</td>
<td>2</td>
<td>N/A</td>
</tr>
<tr>
<td>Box width greater than 8”</td>
<td>5” Max</td>
<td>1 (Centered)</td>
<td>5” Max</td>
</tr>
</tbody>
</table>

L-Clip Five Panel Folder (FPF)

<table>
<thead>
<tr>
<th>Size</th>
<th>Edge Space</th>
<th>Min # of Clips</th>
<th>L-Clip Spacing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box length All</td>
<td>¼” - ½”</td>
<td>2</td>
<td>5” Max</td>
</tr>
<tr>
<td>Box length less than or equal to 6”</td>
<td>¼” - ½”</td>
<td>2</td>
<td>5” Max</td>
</tr>
<tr>
<td>Box length greater than or equal to 6”</td>
<td>¼” - 1”</td>
<td>2</td>
<td>5” Max</td>
</tr>
</tbody>
</table>
Stitching
Other than metal stitches.
• Stitching for closure has limited applications and must be approved by packaging engineering.
• Note: Wire stitching shall comply with the staple closure section.

Banding
• Metal banding is prohibited unless specified.
• Banding as a closure is only used when specified on an individual part.
• Cartons shall not be handled by the bands.
• Plastic banding must be either polyester or polypropylene.

Polybag Closure for Unitized Parts
All bags must be closed. Acceptable closures may consist of:
• Heat seal (preferred)
  • Poly tubing should be heat sealed on at least one end (both ends preferred)
  • Fold over bag and use tape to close (must be clear)
  • Fold over bag and use the label to close (barcode must be able to scan)
• Ziplock (one part {piece} per bag)*, no tape over ziplock
• Stapled (one part {piece} per bag)*

* Ziplock or stapled bags are not acceptable for multiple kits or for multiple merchandise quantity parts, etc. 5/bag, 10/bag

Bags used in kits:
• Polybags used within kits (subpacks) can be unprinted or with graphics consistent with the graphics on the merchandise packaging. No product identification should be printed on the subpack.
  Optionally, sub packs can be printed with the GM part number only.
Palletization Requirements

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk</td>
<td>✔️</td>
</tr>
<tr>
<td>Unitized</td>
<td>✔️</td>
</tr>
</tbody>
</table>

Pallet and shipping container performance is the responsibility of the supplier. In all cases, bulk and unitized material must be delivered damage free with full container integrity to GM CCA receiving points. See appendix for bulk part specific packaging by commodity; bulk headliner, bulk wheel, bulk fascia, bulk interior door trim panel, and bulk head lamp packaging.

Pallet Specifications

All wood pallets and other packaging material comprised of wood must conform with the International Standards For Phytosanitary Measures No. 15 (ISPM #15), Guidelines For Regulating Wood Packaging Material In International Trade.

To facilitate the recycling of used, expendable packaging, pallet cartons fastened to the pallet must be constructed with a “breakaway” feature or other method to allow easy separation from the shipping pallet.

Breakaway feature to recycle components separately

Style

GM CCA approves the use of only four-way entry, double-face, non-reversible stringer or perimeter block pallets. Winged pallets are NOT acceptable. A stringer pallet dimension should use the format where the first dimension is the stringer and the second dimension containing the fork lift opening. (A 48”x40” will have 48” stringers with the fork lift opening along the 40” side).
Pallet Size
The pallet dimensions below are to be used for shipments made to GM CCA locations, unless noted otherwise on the packaging specification.

<table>
<thead>
<tr>
<th>Unitized or Bulk</th>
<th>Required or Optional</th>
<th>Length</th>
<th>Width</th>
<th>Height¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unitized²</td>
<td>Required</td>
<td>48”</td>
<td>40”</td>
<td>45”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1200mm</td>
<td>1140mm</td>
<td>1143mm</td>
</tr>
<tr>
<td>Bulk²</td>
<td>Optional</td>
<td>48”</td>
<td>45”</td>
<td>50”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&lt;48”³</td>
<td>&lt;45”³</td>
<td>50”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1140mm</td>
<td>980mm</td>
<td>1270mm</td>
</tr>
</tbody>
</table>

1. Maximum pallet load height includes pallet
2. An oversize pallet is permissible only if dictated by the part size (see “Oversize Pallet” section)
3. Undersized pallets must not be smaller than 32”x30” (See “Undersize Pallets - Exception for Supplier’s with Bulk Contract” section)

Weight
Pallet load weight requirements for US and Canada GM CCA locations:

<table>
<thead>
<tr>
<th>Region</th>
<th>Bulk</th>
<th>Unitized</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States GM CCA</td>
<td>2500 lbs</td>
<td>1134 kg</td>
</tr>
<tr>
<td>Canada GM CCA</td>
<td>1650 lbs</td>
<td>748 kg</td>
</tr>
<tr>
<td>Batteries -US and Canada GM CCA</td>
<td>2800 lbs</td>
<td>1270 kg</td>
</tr>
</tbody>
</table>

Pallet loads less than 500 pounds are acceptable on a corrugated pallet, however these must meet pallet specifications and design performance requirements. Corrugated pallets are NOT recommended for ship-direct shipments.

Pallet Construction
Materials used for construction of all pallets shall meet GM CCA Specification # 00009304. Wood materials shall be constructed of Groups II, III, or IV wood species. Pallet to be consistent with NWPCA Use Category "L" - Limited use and designed for an average of nine (9) trips. Commercial tolerances of ± 1/8” apply to all dimensions below.

No pallets with stringer or block repairs are permitted. All broken or split deckboards must be replaced.
All Pallets, regardless of size, must meet the stringer and block requirements below:

**Stringers:** Minimum of 1-1/2” in width by 3-1/2” in height with the length of the stringer dependent on the pallet size (i.e. 48”x40” pallet requires 48” stringers). Each stringer must have two notches centered at 27” unless noted (see section on Undersize Pallets). Each stringer notch opening to be a minimum of 1-1/2” x 9”. Notch corners to be rounded however completely rounded notches are unacceptable.

**Blocks:**
- **Edge Blocks:** shall be 2-11/16” minimum in height. Block length shall be, at minimum, equal to the pallet “Top Deck Edge Board” width. Block width shall be, at minimum, equal to the pallet “Stringer Board” width.
- **Center Blocks:** Shall be 2-11/16” minimum in height. Block length shall be, at minimum, equal to the pallet “Center Board” edge. Block width shall be, at minimum, equal to the pallet “Stringer Board” width.
- All blocks must meet the minimum performance requirement of the “24-Hour Block Soak Test” as stated in Section “5.3.1 Quality” of the NWPCA’s “Uniform Standards for Wood Pallets”. A copy of the NWPCA Standard can be obtained at http://www.palletcentral.com/?page=resources

**48” x 40” & 48” x 45” Pallet**

**Top Deck Edge Boards:** Board thickness a minimum of 1/2”. Minimum board width of 5-1/2” with an allowed maximum of 8”.

**Center Boards:** Board thickness a minimum of 1/2”. Minimum board width of 3-1/2”.

All top board spacings shall be a maximum of 3-1/4”

**Bottom Deck Boards (Stringer Pallets Only):** Board thickness a minimum of 1/2”. Boards must have a minimum 21” cumulative surface.

**Stringer Boards (Block Pallets Only):** Board thickness a minimum of 1/2”. Minimum board width of 3-1/2”. Stringer boards must run along the whole perimeter of the pallet edges with a single board along the center to support center blocks.

Refer to CCA Packaging Material Specification No. 0A044898 (48”x40” Stringer Pallet) and No. 0B038353 (48”x40” Perimeter Block Pallet) for more details and requirements.
Oversize Pallet
An oversize pallet is permissible only if dictated by the part size. If the pallet is > 48” in length and/or > 45” in width, then a minimum board thickness of 5/8” and a width 4” width boards must be used. No more than 7” between top deck boards.

Standard rack opening for warehouse storage is 120” (305cm). For oversized parts less than 105” (267cm), the maximum storage container allowed is 112” (285cm), in order to fit into the standard CCA opening. For parts greater than 105” (267cm), a container size up to a maximum of 172” (437cm) must be used, unless the part size exceeds 172” (437cm).

Stringer pallets must use a minimum of three (3) stringers to reduce excessive deck board flex and four (4) bottom boards.

Block pallets must use an adequate number of blocks to restrict the amount of stringer and deck board flex. Excessive flexing of boards can cause pallets to break during unitizing or shipment.

Oversize Block Pallet (Recommended):
Oversize block pallets are recommended versus stringer style pallets due to the fork entry size on all four sides, allowing a wider range of use. Block pallets must be non-reversible, maintain a full perimeter base, and may have the top deck boards run in either dimension of the pallet.

Oversize stringer pallets are also an option but may be limited in design when shipping to certain GM CCA facility (see below):

Oversize Stringer Pallet Construction (Exception Plant 01 - Flint/Swartz Creek):
Pallets with a length greater than 48” and less than 120”, the pallet dimensions must be specified with the shortest dimensions first (i.e. 48” x 78”). Stringers should run the short dimension, deckboards will run the long dimension (Fig.1). For pallets that are 120” or longer, the pallet stringers must run the length of the pallet (longest side dimension) and deckboards will run the short dimension (Fig. 2).

Oversize Stringer Pallet Construction (Plant 01 - Flint/Swartz Creek Only):
All oversize pallets, regardless of size, should have the stringers run the length of the pallet (longest side dimension) and deckboards will run the short dimension; similar to Fig. 2.

Undersize Pallet - Exception for Supplier’s with Bulk Contract
Undersize pallets have a length and/or width less than a typical 48”x45” pallet but greater than or equal to 32”x30”. Construction of a small or undersize pallets must follow the same guidelines stated above in the “48”x40” & 48”x45” Pallet Requirements” with the exception that undersized stringer pallets may be 2-way (no notches) depending on stringer length, the minimum of three stringers my be reduced to two depending on pallet size/restriction, and pallet blocks may reduce the amount of blocks needed to better fit the need of the pallet without excess stringer board flex.
Nail Fasteners
Nails 2-1/4” x 0.110” hardened steel screw nails with diamond point (no longer than 5/32”) and spiral threads with minimum of 4 flutes are recommended when fastening boards to stringers or blocks. Helical angle of thread at pitch diameter 60 ± 5 degrees with a plane perpendicular to the axis.

Nails with a minimum of 1-5/8” x 0.110” hardened steel smooth nails with diamond point (no longer than 5/32”) are recommended when fastening top/bottom boards to stringer board on block pallets.

<table>
<thead>
<tr>
<th>Board Width</th>
<th>Min. Number¹ of Nails Per Connection of Single-Use or Reusable Pallets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 5-1/4”</td>
<td>2</td>
</tr>
<tr>
<td>5-1/4” up to 7”</td>
<td>3</td>
</tr>
<tr>
<td>7” to 8”</td>
<td>4</td>
</tr>
<tr>
<td>Corner Block</td>
<td>3²</td>
</tr>
<tr>
<td>Center Block</td>
<td>2</td>
</tr>
</tbody>
</table>

¹ No less than one nail per 8 square inches of block fastening surface
² Corner blocks with less than 16 square inches of block fastening surface shall be connected with at least two (2) fasteners

No protuding nail heads or points are permitted. Bent over nails must be driven below surface of deckboards. Avoid nail splits, which will adversely affect the strength of the pallet.

Load Arrangements

1. Directional arrows must be followed when cartons are stacked for shipment.

2. Loads (bulk or unitized) must use materials of sufficient strength and must be capable to withstand stacking up to a height of 10 feet when received at GM CCA Receiving Point and/or customer. The pallet must be reinforced with vertical supports at four corners if the shipping container will not support the load with required stacking. Vertical corner supports shall be constructed of solid fiberboard (minimum .2” thickness) or wood and must run the full vertical length of the load. No placards, labels etc. to be used indicating “Do Not Double Stack.”

3. The top surface of the load must be parallel to the pallet base. DO NOT PYRAMID STACK FULL PALLET LOADS.

4. The load must be secured to the pallet with stretch-wrap, strapping, or both. If using pallet boxes, the lid must be properly secured (i.e. stretch wrap, banding, etc.).

5. Loads secured to pallets using shrink or stretch-wrap must use material of sufficient thickness to retain the load and to prevent load shift. Use a minimum of 70-gauge (.0007 inch) stretch wrapping. The stretch wrap can be twisted like rope for greater strength, but only in combination with full stretch wrapping of the load. Securely capture the pallet when wrapping the bottom layer. Wrap the entire pallet load (pallet + product) from top to bottom a minimum of three times, heavier loads may require more. DO NOT ONLY WRAP THE CARTONS.

6. If using stretch-wrap, DO NOT wrap two pallets, racks, pallet boxes together. Each unit load needs to be handled individually.
7. Shrink or stretch material shall allow for labels to be read via bar code scanners.

8. Loads secured to pallets with strapping must use edge protectors to prevent straps from cutting into cartons. Draw the strapping tight and keep the strapping as close to the load as possible to avoid strapping damage or breakage. This may require running the strapping between deck boards rather than the edge of the pallet. Do not run straps through the stringer side fork entry opening.

9. Interlocking of lightweight cartons is acceptable. However, interlocking of heavy (>25 lbs.) unit packages should be avoided to eliminate container wall crushing. When column stacking is used, layer pads should also be used to eliminate column toppling.

10. A liner sheet must be placed on the top deck of a pallet to prevent small product from coming through top deck boards.

11. When shipping small parts or graphic cartons that are double stacked, a liner sheet must be placed on top layer to prevent damage.

12. No overhang of bulk or unitized material is allowed at GM CCA receiving points.

13. Product weight should be distributed evenly over the pallet surface.

14. Pallet boxes may be used in place of stretch-wrap or strapping.

15. When using shipping baskets (i.e. 6154), baskets must be lined if contained material can poke through the sides of the basket.

16. Oversized pallets are only permissible for mixed loads if all the part numbers on the pallet require the larger pallet. Parts that will fit on a standard pallet (48” x 40”) can not be mixed on an oversized pallet.

17. Mixed bulk and unitized parts can be on the same pallet. However, each part should be packed in its own corrugated shipping box to segregate each part number within the pallet load.

18. If shipping bulk material to Plant 77 Davison Road or Plant 94 West Chester Processing Centers: If individual carton >40lbs needs to use individual pallet due to handling issues (compliance required by 06/05/17).
Mixed Loads

1. All parts should be shipped in full pallet loads. However, if quantity is not sufficient for one pallet load, more than one part number may be contained in the pallet load. Refer to “Palletizing for CCA-GM 1724-C”.

2. Part numbers are not to be on more than one pallet load or fragmented when quantity is sufficient to make a full pallet load.

3. Each container must be identified with part number and quantity. Refer to: Pallet and Shipping Container Identification in this section and/or the “Distribution Containers GM 1724-A” section.

4. Oversized pallets are only permissible for mixed loads if all the part numbers on the pallet require the larger pallet. Parts that will fit on a standard pallet (48” X 40”) can not be mixed on an oversized pallet.

5. Part numbers are to be palletized according to the quantity of cartons they are contained in. The largest quantity of cartons containing a single part number will be at the bottom of the pallet load. Subsequent cartons will be stacked in a manner such that the smallest quantity of cartons will be at the top of the pallet load. Part weight, load stability, and carton integrity must be taken into consideration when palletizing (i.e. do not stack excessively heavy parts on top of lighter parts, etc.).

6. Mixed pallets must not be pyramid loaded and must be able to be stacked up to 10 feet height.

Additional Requirements Shipping to GM CCA Processing Centers and Parts Distribution Centers

LTL vs. Small Carrier Shipments
If each parcel is 40 pounds or less, the supplier must first consider shipping small parcel carrier before shipping LTL.

If shipping bulk material to Plant 77 Davison Road or Plant 94 West Chester Processing Centers: Individual carton >40lbs needs to use individual pallet due to handling issues (compliance required by 06/05/17).

To maximize pallet space, GM CCA requires the total package area to occupy at least 75% of the standard 48” x 40” pallet footprint. The exception would be if a single unit piece is greater than 40 pounds. The intent is to reduce the amount of pallet load handling by utilizing small parcel carriers.
GM CCA Hazardous Material Requirements

<table>
<thead>
<tr>
<th>Supplier Type</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk</td>
<td></td>
</tr>
<tr>
<td>Unitized</td>
<td>✔️</td>
</tr>
</tbody>
</table>

This section covers GM CCA contractual and regulatory requirements associated with hazardous materials as identified in the domestic and international transportation regulations and the U.S. Occupational Safety and Health Administration (OSHA) Code. Conformance to these requirements and regulations is mandatory to prevent fines, fees, civil penalties, impact to corporate reputation, and impact to human health and the environment.

Examples of hazardous materials/dangerous goods include but are NOT limited to:

<table>
<thead>
<tr>
<th>Part Types:</th>
<th>General Categories:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airbags</td>
<td>Magnetized Material</td>
</tr>
<tr>
<td>Airbag Inflators</td>
<td>Compressed Gas</td>
</tr>
<tr>
<td>Seatbelt Pretensioners</td>
<td>Non-flammable Gas</td>
</tr>
<tr>
<td>Struts/Shock Absorbers/Gas Lifts/Dampers</td>
<td>Flammable Gas</td>
</tr>
<tr>
<td>Boosters</td>
<td>Flammable Liquids</td>
</tr>
<tr>
<td>Lithium Metal Batteries</td>
<td>Pressurized Pneumatic Articles</td>
</tr>
<tr>
<td>Lithium Ion Batteries</td>
<td>Chemicals</td>
</tr>
<tr>
<td>Nickel Metal Hydride (NiMH) Batteries</td>
<td>Aerosols</td>
</tr>
<tr>
<td>Lead Acid Batteries</td>
<td>Certain Wastes</td>
</tr>
<tr>
<td>Fuel System Components</td>
<td>Vehicles incorporating new fuel technology</td>
</tr>
<tr>
<td>Safety devices</td>
<td></td>
</tr>
</tbody>
</table>

Definitions

When used in this document the following terms shall have the meanings indicated:

**Hazardous Materials (HM)** – A term commonly used inside the United States to describe substances or articles with the potential to impact human health and/or the environment. These materials exhibit harmful characteristics and can be:
- Corrosive
- Flammable
- Explosive
- Reactive

**Dangerous Good (DG)** - A term commonly used outside of the United States to describe substances or articles with the potential to impact human health and/or the environment. These materials exhibit harmful characteristics and can be:
- Corrosive
- Flammable
- Explosive
- Reactive

**MSDS/SDS** - Material Safety Data Sheet (MSDS) or Safety Data Sheet (SDS) is a mandatory document that must be provided in the language(s) of the country(ies) of destination AND English. It is used to communicate hazards to people coming in contact with the material. The document includes material, emergency-response, and regulatory information in a format prescribed by domestic and international regulation and the GM Industrial Hygiene and Toxicology Group.

For additional information or compliance questions regarding the MSDS document, please e-mail General Motors Industrial Hygiene and Toxicology Group at: gm-msds@ttsvcs.com
Requirements for Hazardous Material Transportation

Transportation regulations dictate how hazardous materials/dangerous goods must be classified, labeled, marked, packaged, and shipped.

Classifying a Hazardous/Dangerous Part

The supplier must identify the part by its proper shipping name and follow the guidelines established in the hazardous material table. It is important to reference this table in order to understand all of the regulatory requirements associated with a given part. The hazardous material table is found within the domestic and international regulations.

For example:
- The U.S. (United States) hazardous material table is found in the Code of Federal Regulations Title 49, part 172.101 (49 CFR 172.101).
- The Canadian hazardous material table is found in Consolidated Transportation of Dangerous Goods Regulations, Schedule 1.

General Packaging Overview

Domestic and international regulations, as well as applicable special provisions, mandate the type of packaging required for hazardous materials/dangerous goods. These regulations include general packaging requirements and performance testing.

- Outer Packages: all packages all of the time for hazardous material/dangerous goods must be designed and constructed to limit exposure to people or the environment through conditions of normal transportation. The required testing is specified in the regulation and is dependent on the part type.
- Inner Dunnage: all parts must be packed and secured to prevent breakage or leakage and to control movement within the outer package (parts cannot shift around inside the package).
- Pelletized loads must contain corrugated slip sheets on both the top and bottom of the load to prevent damage to the corrugated cartons.

Labeling and Marking Requirements

Marks and labels communicate information about the material in the package or about its handling. They are applied to the surface of the package. Marks and labels should never be obstructed, illegible, overlapped, or placed in a manner that limits their effectiveness.

Example of Markings

Example of Labels

Labels are put in place based on the hazardous material table (49 CFR 172.101, column (6) for the U.S. requirements and Schedule 1, Col. 3 for Canadian requirements). The labels must be at least 4” x 4”, printed in English, and placed diamond on point if the box size allows. More than one label may be required depending on the materials being shipped.
• Markings - Most marking requirements for the consignor (person shipping) will be found in Subpart D of Part 172 (49 CFR 172.300 – 172.338) for the U.S.; Part 4 for Canada. Markings are any other information the regulations want communicated on the package, other than hazard class and subsidiary hazard information. This information should never be covered or obstructed by other labels or information.

• Overpack Labels and Marks - The same rules apply for the U.S. and Canada for overpacks. Marks and labels identifying each hazardous material inside the overpack must be duplicated and match exactly on the outside of the overpack unless visible through the container.

• Example that DOES NOT require duplicate labeling and marking:
  Airbags shrink wrapped on a pallet with marking and labeling facing outward and clearly visible.

• Example that DOES require duplicate labeling and marking:
  A mixed-load, including airbags in an enclosed shipping container requires overpack labels and marks because the labels and marks on the packages inside the container cannot be seen.
Special Permits, Competent Authority Approvals, and Equivalency Certificates

It is the responsibility of the supplier to understand and adhere to all government requirements domestic and international for hazardous material or apply and obtain approvals listed below for exceptions.

Special Permits “DOT-SP” – For the U.S. only, a special permit is a variance from the regulation that acknowledges an equivalent level of safety for handling or transporting hazardous material.

Competent Authority Approvals - Competent Authority Approvals can be from any country of origin and they are meant to allow new technology and alleviate economic hardship associated with the rules. They can cover any portion of the rules.

Equivalency Certificates - For Canada only, an equivalency certificate is required for variations from any regulatory Requirement.

Documents such as those listed above must be readily available and provided to GM CCA upon execution of initial contracts. Failure to provide requested information can result in a PR&R. It is expected that both USA and international approvals will be provided.

Potential Penalties for Non-Compliance

Failure to comply with the regulations can result in a penalty or fine of up to 75,000 USD per occurrence as well as civil penalties including jail time administered by the individual country transportation authority. In addition, GM can impose PR&R’s for non-conformance, and in extreme cases may be required by law to report supplier non-compliance to the authorities.

Who to Contact for Hazardous Material Help:

DG Compliance Team
E-mail : stefanie.henkel@gm.com
  brian.booth@gm.com
  mark.wheaton@gm.com

Regulatory Requirements in Packaging Specifications

Source unitized packaging specifications can include Parts Marking and/or Substance of Concern regulatory requirements. It is critical that suppliers regularly review the part number-level packaging specifications in Global PKG as the requirements can change many times during the life of a part.

Requirements for Returnable Containers

A supplier may be selected to ship in returnable containers through GM CCA’s internal process. The storage space for the GM CCA containers must be secure. All lost or stolen GM CCA equipment will be replaced/re-paid by the supplier site where it was deemed lost or stolen. All material that is in the scrap process should be kept at the supplier facility to be scrapped unless specified. A supplier scrap form (GM1120) must be filled out by the supplier and send to e-mail address below.

All questions concerning returnable containers can be directed to GM CCA Containerization at:
scgmcontainers@xpo.com
Regulatory Requirements in Packaging Specifications

Source unitized packaging specifications can include Parts Marking and/or Substance of Concern regulatory requirements. It is critical that suppliers regularly review the part number-level packaging specifications in Global PKG as the requirements can change many times during the life of a part.

GM CCA 1738 Packaging Detail Form (see pg. 6)

- Suppliers must indicate (Y/N) in Section 1 if the part contains a Substance of Concern (SoC) or has a Parts Marking requirement.
- If Yes is selected, suppliers must complete the SoC or Parts Marking section at the bottom of the form indicating the regulatory requirement and proper label and/or marking. Reference GMW3059 in the Resources section of the form.

Parts Marking Regulations

- Impacts articles (service parts, aftermarket parts and accessories)
- Note that parts marking regulations may apply to both production and aftersales or aftersales only parts
- Part and/or packaging must contain the required compliance mark in order to be sold in a regulated market
- Examples of Parts Marking requirements:

![Brazil - InMetro](image1)
![California and Washington – Copper in Brakes](image2)
![KC – Korea](image3)

Substance of Concern (SoC) Regulations

- Impacts preparations (fluids) and articles (hard parts) based on the chemical or material ingredients
- Intention is to declare or prevent substances within the product which could cause harm to people or the environment
- Packaging may require specific warning statements and pictograms
- Suppliers must comply with GMW3059, the GM Worldwide Engineering specification that lists the substances whose use in materials and components, in the interests of personnel and environmental safety, are either prohibited or limited. For more information, please refer to: www.gmw3059.com
- Examples of Substance of Concern requirements:
Appendix
Bulk Headliner Packaging

Bulk Headliners will be required to be packed in multiple piece bulk packs. Single piece packaging is not acceptable. A tray, sleeve, cover packaging design should be used for bulk headliner packaging.

Parameters:

1) Maximum unit load height of 50", including pallet.
2) Bulk carton design to allow for the ease of opening and retrieval of product.
3) Nested parts to have sufficient dunnage (polyurethane foam blocks are required) between part layers to protect parts and maintain part separation, especially for the bottom most part of unit load pack.
4) Any loose or hanging parts (i.e. harness wiring) must be adequately secured or protected to prevent tears, indentations, creases, or soiling of the headliner.
5) Allow double stacking of like weight and footprint packs to a height of 10 feet.
6) Sleeve height to be either 20 or 40 inches, +/- as needed but must meet maximum height requirement of 50 inches. For 20 inch sleeves, two sleeves can be stacked on top of each other on a single pallet.
Bulk Wheel Packaging

Returnable dunnage option: (see FIG 1 for correct micro foam and banding usage on wheel unit loads)

Wheels shipped to West Chester (Plant 094) are required to be packed:
- With two micro foam sheets on every wheel face to prevent scuffs/scratches.
- Every returnable unit load of wheels requires a minimum of four ½” polyester bands. Two in the length dimension and two in the width dimension.
- Wheel unit loads will receive two layers of stretch wrap attached to the pallet and wrapped completely from top to bottom of the load.
- Maximum unit load height is 50”, including pallet.
- Retunable dunnage must be 72” or less in length.
- Wheels must be received at West Chester (Plant 094) safe, secure, and without defects.
- No wheels packed in the vertical position will be accepted. All wheels shall be packed in the horizontal position.

Expendable dunnage option: to be used only when returnable dunnage is unavailable or not provided (see FIG 2 for a correctly packaged expendable wheel unit load).

In the absence of returnable wheel dunnage, suppliers shall have an expendable back up package with parameters:
- Bulk expendable design to allow for the ease of opening and retrieval of product.
- All wheels will have a micro foam sheet on the face to prevent scuffs/scratches.
- Every unit load of wheels requires a minimum of five ½” polyester bands. Three in the length direction and two in the width direction.
- Maximum unit load height is 50”, including pallet.
- Unit loads will receive three layers of stretch wrap surrounding the load completely from top to bottom and attached to the pallet.
- Expendable unit loads will differ from the size of returnable unit loads, so if returnable dunnage is assigned pay close attention to keep returnable packaging available to ship in.
  a. It is the Supplier’s responsibility to design and procure sufficient expendable packaging.
  b. The Supplier must be mindful to the weight constraints of the pallet and abrasiveness of the expendable dunnage.
  c. The pallet must not buckle or fail from excessive load weight.
  d. The dunnage must not mar or scratch the wheels.
- Wheels must be received at West Chester (Plant 094) safe, secure, and without defects.
FIG 1: Returnable Dunnage

Top View

Correct Unit Load (top view) with (4) bands and foam sheets between the layers of wheels.

Correct Unit Load with non-abrasive foam sheets between layers, min (4) ½” polyester bands, and min (2) layers of stretch wrap.
(2) layers of stretch wrap attached to the pallet and moving up and over the unit load.

CORRECT BANDING

5 total ¼" polyester bands
(2 bands in the width dimension and 3 in the length dimension).

50" maximum load height for bulk shipments
Absolutely no “unitized” wheels will be accepted.

Never ship wheels without micro foam sheets, the required banding, or required stretch wrap.
Bulk Fascia Packaging

Inbound bulk fascia packaging specification

This specification applies to fascias, caps, and deflectors that are shipped bulk in Ypsilanti Plant 87. The intent is to narrow the focus on how raw fascia and fascia type parts are received, with minimal deviation given to part size or returnable rack availability.

- Fascia Protection: The supplier will be compliant to following unless a deviation is given. GM CCA Packaging and or Purchasing will provide suggested suppliers for all protection items listed, upon request. This will apply to all fascias, caps, and deflectors shipped to Ypsilanti Plant 87 under a bulk contract.

- Supplier will utilize a .004" (4 mil) bag with end load construction. The bag material will consist of a mono blend of HMW-HDPE, LLDPE, and Metallocene.

- When using an end loading bag, the bag opening will be folded and taped back to the bag once the fascia is inserted. The folded end will not exceed 12" of overlap. The bag will conform to the part shape to promote nesting in the rack.

- When using an envelope style bag, the bag must be securely taped in three locations (in the middle and on each end). 100# utility filament tape is recommended.

- All metal surfaces (if present on the part) will be covered with foam padding. All sharp plastic that could contact other nested parts will be covered with foam padding. Foam padding will be adhesive backed, and be applied to the part prior to it being placed in the bag.

- Returnable rack requirements: The supplier will be compliant to following unless a deviation is given. The purple 0754 returnable fascia rack (FIG 1) is the intended method of conveyance for fascias shipped to Ypsilanti Plant 87 under a bulk contract (see expendable requirements for caps, deflectors, and lower fascias).

- Nesting of parts will not cause damage; the fascia will arrive defect and damage free.

- Fascias shipped in vehicle position.

- All fascias are shipped using both shelves.

- The supplier will place a corrugated board (28"x44") on the nose of the rack to protect fascia fronts.

- The supplier will place an L - shaped corrugated board on each of the 4 shelves of the 0754 Rev 1-3 racks to prevent portions of the fascia from sticking through. The board must extend vertically up the side of the rack a minimum of 19".

- Poles will be placed closest to inside corner of fascia.

- For fascias that are given a 'one high' deviation, those parts will be stretch wrapped to rack unless 0754 Rev 4 is being used. A full sheet of corrugated will cover the shelf sides of the rack (instead of the L shaped corrugated board).

- Supplier will ship in full rack quantities, no partial loads.

- The 1724 shipping label will be applied in two places: on the rack nose (attached to the corrugated board), and on right upper corner of side to the right of the nose.

- All old labels will be removed by supplier prior to shipping.
Expendable Requirements: The supplier will be compliant to following unless a deviation is given. This section applies only to caps, deflectors, and lower fascias shipped to Ypsilanti Plant 87 under a bulk contract.

- The supplier will utilize 78x48x50 pallet box (FIG 2) with fold down front and flip up top. The pallet box will have double wall construction using 51 ECT board.
- Slip sheets are to be used between part layers.
- Parts will arrive defect and damage free.
- Supplier will communicate unit load for any new part number prior to shipping.
Bulk Interior Door Trim Panel
Packaging shipping to 76 (Lansing)

When supplier is shipping door trim panels in bulk without using an individual box around the part, the supplier will be compliant to following unless deviation is given:

- Each part shall be protected from surface cuts, abrassions, marring or other similar damage. Plastic bags, foam bags or sheeting, plastic bubble bags or sheeting used for this purpose must fully contain the part and be sealed on all sides.
- Parts shall be contained in the bulk container using a closed air cell partition insert with a vertical part orientation.
- Partition shall be of sufficient strength to maintain integrity and ensure parts remain in a vertical position as parts are retrieved for shipment to GM CCA customers.
- Bulk containers must be stackable without causing any damage to the product in either container. Refer to the Palletization Requirements in the bulk section of this manual for more information.

When supplier is shipping door trim panels in bulk using an individual box around the part, the supplier will be compliant to following unless deviation is given:

- All door trim panels shall be shipped using a minimum 32 ECT / 200lb burst strength box.
- Carton dimensions shall be sufficient in size to create adequate separation of part from the outside of the carton wall when protective bubble sheeting is added to the package (see last three bullets below).
- Each part shall be protected from surface cuts, abrassions, marring or other similar damage. Plastic bags used for this purpose must fully contain the part and be sealed on all sides.
- Parts shall be further protected with large bubble sheeting.
- Sheeting shall completely cover part on all sides and be in a sufficient quantity to create adequate separation of part from the carton wall.
- Sheeting shall also be of sufficient quantity to immobilize the part from excessive movement during transit.
Bulk Head Lamp Packaging

Bulk head lamps are required to be packed in multiple piece expendable containers. SINGLE PIECE PACKAGING IS NOT ACCEPTABLE.

Expendable Container Design
• Container design must allow for ease of opening and retrieval of product.
• Pallet size can be either (48” x 45”) or (48” x 40”).
• Maximum height of the container is 50”.
• Head lamps must be separated with dividers to prevent contact between parts.
• Foam cushioning should be used as necessary to protect sharp or fragile areas of parts.
• Head lamps must be received at GM CCA, free of damage or defects.
• It is the Supplier’s responsibility to design and procure sufficient expendable packaging.
Bulk Windshield Wiper Packaging

When supplier is shipping windshield wiper blades in bulk the supplier will be compliant to the following:

- Individual parts will not be boxed
- Parts can be individually wrapped in a clear polybag. Colored or tinted bags will not be allowed. See side bar for polybag rules
- If using a true bulk pack all parts should be separated so that part to part contact is eliminated.
- Markings on the part should include only the GM part number and Country of Origin. On bagged material a label may be applied to the exterior of the bag. Label shall not exceed 1”x 2.25” and be plain white with no logos or graphics other than part number and Country of Origin.
- All inbound shipments should be of a design that allows easy safe removal of product at the receiving facility.
- Bulk containers shall be of sufficient strength to be stacked in transit without causing damage to the product of the container. Refer to the Palletization Requirements in the bulk section of the Packaging Standards and Requirements document for more information.

Proper Country of Origin placement
Inbound PolyBag Requirements:
- Width of bag shall not exceed 3.5"
- Length of bag shall not exceed the length of the blade by more than 2"
- All bags should be clear. No tinted colors will be accepted.
- Part should be clearly visible to allow for quality inspection without removal
- Bubble bags are not allowed
- Bags should be sealed as such that part is fully contained
- Country of Origin can be added to the outside of the bag via a plain white label
- NO company logos or printing on the bag will be allowed.
- Label should be placed near 1x end of the bag allowing an unobstructed view of the product.

Maximum Length of Inbound Flexible Pkg = Length of Blade + 2”
## Definitions of Terminology

<table>
<thead>
<tr>
<th>DATA FIELD NAME</th>
<th>DEFINITION OF TERMINOLOGY AND EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part Number - (GM Part:)</td>
<td>This is the GM part number to be preprinted or imprinted on the merchandising container or product ID label.</td>
</tr>
<tr>
<td>Part Name - (PART NAME:) (FRENCH NAME:) (SPANISH NAME:)</td>
<td>This is the product noun names to be preprinted or imprinted on the merchandising container or product ID label in accordance with the attached product ID standards. Note: French and Spanish accents and special characters are required to be preprinted or imprinted on the container or ID label.</td>
</tr>
<tr>
<td>Last Rev Date</td>
<td>Date of the last packaging revision. (MM-DD-YYYY)</td>
</tr>
<tr>
<td>Date Printed</td>
<td>Document generation date. (MM-DD-YYYY)</td>
</tr>
<tr>
<td>Packed ID - (PKG ID:)</td>
<td>This is the package engineering control code and is defined as follows: A - Part is packaged by Allied GM Division. P - Requires unit packaging and/or identification. M - Part number is stamped or embossed in the product and does not require unit packaging. N - Part does not require packaging or identification.</td>
</tr>
<tr>
<td>ACDelco Number - (AC DELCO PART:)</td>
<td>This is the ACDelco catalog number (short number or type number). When this number is different than the GM standard number it is also to be preprinted or imprinted on the merchandising container or product ID label.</td>
</tr>
<tr>
<td>Line Code - (LC:)</td>
<td>This is the ACDelco line code.</td>
</tr>
<tr>
<td>Group Number - (GROUP:)</td>
<td>This is the GM parts catalog group number. It is to be preprinted or imprinted on the merchandising container or product ID label. If the group number is 66.666, 77.777, 88.888, 99.999 or blank, do not preprint or imprint this catalog number on the package or product ID label. ACDelco exclusive parts do not require catalog group number.</td>
</tr>
<tr>
<td>Core Group - (Core Grp:)</td>
<td>This is the Remanufacturer core group number. It is to be preprinted or imprinted on the merchandising container or product ID label.</td>
</tr>
<tr>
<td>AWC/US, AWC/CA, PUR IND, F CNTL</td>
<td>GMCCA internal fields</td>
</tr>
<tr>
<td>Special Processing - (Spec Proc:)</td>
<td>Codes referring to special processing requirements</td>
</tr>
<tr>
<td>Design Engineer - (Dsgn Eng:)</td>
<td>GMCCA Packaging Engineer Name</td>
</tr>
<tr>
<td>Special Packaging Instructions -</td>
<td>An indicator to denote that special instructions have been issued explaining the forming, loading, closing,</td>
</tr>
</tbody>
</table>
## Definitions of Terminology (continued)

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution Quantity - (Dist Pack Qty:)</td>
<td>This is the quantity of pieces of the part that are in the distribution container if specified. <strong>NOTE:</strong> This is the actual number of pieces not the number of merchandising containers. This quantity is to be preprinted or imprinted on the distribution container or distribution label.</td>
</tr>
<tr>
<td>Unit Load Quantity - (Unit Load (Std) Qty:)</td>
<td>The quantity (in pieces) of parts in a rack or on a pallet.</td>
</tr>
<tr>
<td>Merchandising UPC - (Merch UPC)</td>
<td>UPC Version A bar code associated with the merchandising quantity (where applicable). If barcode not shown default to Code 3 of 9.</td>
</tr>
<tr>
<td>Distribution UPC - (Dist UPC)</td>
<td>Interleave 2 of 5 bar code associated with the distribution quantity (where applicable). If barcode not shown default to Code 3 of 9.</td>
</tr>
<tr>
<td>Unit Load UPC – (Unit UPC)</td>
<td>Interleave 2 of 5 bar codes associated with the unit load quantity (where applicable). If barcode not shown default to Code 3 of 9.</td>
</tr>
<tr>
<td>Single Piece UPC – (Sngl PC UPC)</td>
<td>UPC Version A bar code associated with the sub-pack quantity. (IE. Spark Plugs: Single piece UPC is preprinted or imprinted on each single piece container)</td>
</tr>
<tr>
<td>Units Per Layer (TI):</td>
<td>This is the number of packages per layer on a pallet or rack</td>
</tr>
<tr>
<td>No. of Layers (HL):</td>
<td>This is the number of layers on a pallet or rack</td>
</tr>
<tr>
<td>BOM ID:</td>
<td>GM GlobalPkg Bill of Material identification number</td>
</tr>
<tr>
<td>BOM Status:</td>
<td>BOM Status indicates the status of the BOM ID</td>
</tr>
<tr>
<td>Components</td>
<td>Indicates the packaging materials required to package the part for the selected BOM ID. <strong>Note:</strong> The active BOM ID is highlighted, if part number has more than one BOM ID.</td>
</tr>
<tr>
<td>Package Type - (PKG TYPE)</td>
<td>The code to indicate the type of material specification required. <strong>A:</strong> Inserts, fillers, corrosion inhibitors, special labels, etc. <strong>B:</strong> Bar Code requirements. <strong>C:</strong> Closure code. <strong>D:</strong> Distribution container (master pack). <strong>I:</strong> Imprinting Specification. <strong>L:</strong> Merchandising container label. <strong>M:</strong> Merchandising container (unit container). <strong>O:</strong> Optional merchandising container. <strong>P:</strong> Pallet. <strong>S:</strong> Internal sub-pack contained in the unit package.</td>
</tr>
</tbody>
</table>
Definitions of Terminology (continued)

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Load – (P or W)</td>
<td>The pallet or rack used to accomplish the unit load or source pallet quantity.</td>
</tr>
<tr>
<td>Additional - (A)</td>
<td>Additional package components required to complete the packaging requirements, i.e.: inserts, filters.</td>
</tr>
<tr>
<td>Sub-Packs – (S)</td>
<td>Sub packs are internal packages contained in the merchandising/unit package.</td>
</tr>
<tr>
<td>Closure – (C)</td>
<td>Container closure shall comply with good commercial practice and conform to carrier regulations. Exact methods of closure will be specified with a package specification or special instructions when required.</td>
</tr>
<tr>
<td>LOCATION/LAYOUT of PRODUCT IDENTIFICATION</td>
<td>Corrugated Carton Labels shall be located in the center of the end panel. Printing product identification information directly on corrugated cartons is acceptable as outlined in the Packaging Standards and Guidelines Manual.</td>
</tr>
<tr>
<td>Folding Boxes, Labels, Bags, Pouches, Envelopes, etc</td>
<td>Location for imprinting product identification information can be found in the Packaging Standards and Guidelines Manual. Exceptions will be noted on special packaging instruction documents or on individual package material specifications.</td>
</tr>
<tr>
<td>Processing Lot Identification</td>
<td>Date Codes are required as outlined in the Packaging Standards and Guidelines Manual. Any question on these date code instructions must be referred to our Department.</td>
</tr>
<tr>
<td>Sample Parts</td>
<td>Sample packaged parts may be required for sample approval by our Package Engineering Department or Quality Systems Department prior to the first shipment.</td>
</tr>
<tr>
<td>Shipping Requirements Packaged Service Parts</td>
<td>In addition to the above packaging requirements, unless otherwise specified, shipping and palletizing requirements are outlined to assist you in meeting our material handling objectives. Any exceptions to these requirements must be referred directly to the Package Engineering Department when quoted. It must also be taken into consideration that all material shall be suitably packed, marked and shipped in accordance with the requirements of common carriers in a manner to secure the lowest transportation costs. Refer to Packaging Standards and Guidelines manual.</td>
</tr>
<tr>
<td>Returnable Shipping Containers:</td>
<td>Returnable shipping containers to have vendor’s name and return address clearly stamped, stenciled or otherwise identified.</td>
</tr>
</tbody>
</table>