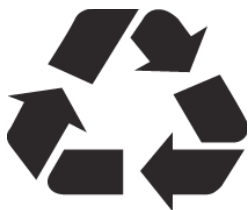
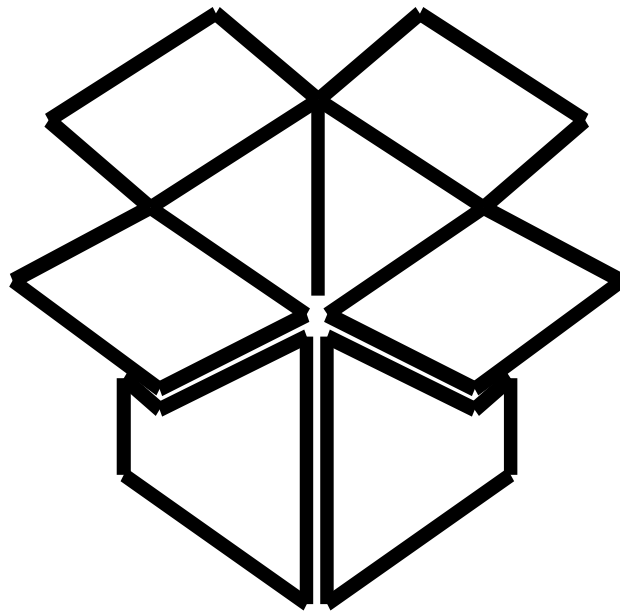




Customer Care and Aftersales Packaging Engineering

Packaging Standards & Requirements Revision May 2018



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 on the dashboard of the GM CCA Packaging website- Global PKG (gm.gpkg.com) or on the GM Supply Power website (www.gmsupplypower.com)

The path to follow through GM Supply Power is:

If you are not logged into GMSupplyPower, please do so and navigate through the following screens:

GMSupplyPower >Collaborate> Document Library - General Motors. In the search box, enter "Packaging Standards and Requirements" to find the current CCA packaging document. .

A Definitions of Terminology used in this document can be found via the GM CCA packaging specification website (gm.gpkg.com). Please navigate to the Support section on the main Dashboard after login.

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- Global PKG (gm.gpkg.com)
- 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.
- Unitized packaging specifications may include Parts Marking and /or Substance of Concern regulatory requirements.
- Suppliers shipping hazardous materials must follow all prescribed regulations as specified in 49 CFR, Research and Special Programs, U.S. Department of Transportation when packing and shipping hazardous material.
- All incoming material to GM CCA receiving points must be identified with a GM 1724 Global Transportation Label.

Delivery Performance Rating: A supplier's conformation 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).

Questions:

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

All questions regarding GM CCA Country of Origin, e-mail: coocompliance@gm.com

All questions regarding Substance of Concern (SoC), e-mail: CCA.substanceofconcern.partsmarking@gm.com

All questions regarding Hazardous Materials, e-mail: gmccadgt@gm.com

All questions regarding GM 1724 Global Transportation Labels, e-mail: GMNALabelValidation@gm.com

All questions regarding GM CCA Containerization, e-mail: scgmcontainers@xpo.com

Bulk verses Unitized-Definitions

Suppliers can visit, the GM CCA Packaging website (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 a 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 bulk packaging requirements in this manual.
- If supplier is using packaging to protect parts in shipment, supplier's name, logo, and/or 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 (gm.gpkg.com) website, USB=U and shows a current Processing Plant" is 077.

The screenshot displays the GM CCA Packaging website interface. On the left, a tree view shows the part hierarchy. The main area shows a table of part details for 12612289. The USB field is highlighted with a yellow box and an arrow pointing to 'U'. The Current Processing Plant field is also highlighted with a yellow box and an arrow pointing to '077'.

Item Detail	Value
GM Part	12612289
Part Name	PUMP
USB	U
ACD Part Number	
Line Code	
Group	01.652
Last Rev	2015-05-22
Paint Code	
UPC	6F
FRA	X0036
French name	POMPE
Spanish Name	BOMBA
L/R Ind	
Make From	
Replaces Part No	
Single Pc UPC	
MerchandisingUpclur	
Dist Pack Barcode	
Unit Load Barcode	
Core Group	
Mvss	
AntiTheftIndicator	0
Time Per Piece	0.004900000
Current Processing Plant	077

Below are examples of bulk packaging*:



*Additional examples of commodity specific bulk packaging can be found via the Bulk Packaging Appendix stored on the GM CCA packaging specification website: (gm.gpkg.com). Please navigate to the Support section on the main Dashboard after login.

Definition of Unitized

- Individually packaged parts with GM CCA brand labels or graphic packages per GM CCA packaging specification.
- Expected to meet unitized packaging requirements in this manual.
- Supplier graphic or any additional supplier labels, including suppliers name or logo are **not acceptable** on any packaging materials, unless documented on a GM CCA specification.
- Packaging specifications can be found on the GM CCA Packaging website (gm.gpkg.com)

Below are examples of unitized packaging:

Plain bag+ graphic label on bag

Graphic label on part

Graphic pkgs

Corrugated box + graphic label



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

Item Detail	Value
GM Part	19303975
Part Name	FILTER
USB	S
Current Processing Plant	000

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.

Item Detail	Value
GM Part	25859115
Part Name	WINDOW
USB	S
Current Processing Plant	622

GM 1738 CCA Packaging Data 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 GM 1738 CCA Packaging Data Form, and return it to MHSI.

The completed GM 1738 CCA Packaging Data 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 GM 1738 CCA Packaging Data Form will initiate the GM CCA Purchasing Request for Quote (RFQ) process.

Failure to provide a GM 1738 CCA Packaging Data Form could result in a Problem Report & Resolution (PR&R).

If suppliers require assistance with the GM 1738 CCA Packaging Data Form process please email:

spopackaging@gm.com

GM 1738 CCA Packaging Data Form

Supplier Information (Shipping):

Company Name:	Shipping DUNS #:
Company Address:	Mfg DUNS #:
Plg Contact Name:	CCA Source Code:
Email Address:	Tel #:

Section 1: Part Information

A. Part Number(s)	
B. Part Description (Name)	
C. Part Weight (each)	
D. Part Dimensions L x W x H	
E. Hazardous Part(s)	Hazard Class
F. SoC or Parts Marking	

Section 2: Packaging Overview

1. Primary Packaging (Primary/Full)		2. Secondary Packaging (Transport/Unit Load)	
A. Packaging Strategy			
B. Density (Quantity of parts, i.e. Standard Pack)			
C. Packaging Type (As per Supplier)			
D. Package Number (GM Supplier)			
E. Dimensions L x W x H			
F. Material / Quality	Flute:	Flute:	
G. Stack Description (Secondary Only)	Cartons or Units/Layer (TI)	Layer/Pallet (HI)	Pallet Material:
H. Total Weight(s)	Single Pack Weight:		Total Unit Weight:

Section 3: Dunnage Detail

ALL DUNNAGE REQUIRED: Add Dunnage Remove Dunnage

Dunnage Style & Description	Material Description

Section 4: Visual References (Pictures) - Minimum 2 Required



4-1. Part Only	4-2. Part + Dunnage + Primary Box	4-3. Primary + Secondary Unit Load
More Pictures		

Miscellaneous / Comments:

SoC or Parts Marking

Attached Files (opt) Attach Files

Rust Free Shipments of Ferrous Parts

Supplier Type	Required
Bulk	
Unitized	

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 coatings that require strong solvents, special cleaning equipment or extra labor to remove.
- Soft coatings that harden 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

Supplier Type	Required
Bulk	
Unitized	

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.**

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.

- For bulk parts, the country of origin must be marked using **ONE** of following methods:
 - etched or embossed directly on the part,
 - labeled directly on the part
 - bagged and labeled on the individual bag
- For unitized parts, the country of origin must be marked on the part label on the outside of the merchandise packaging.
- **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.

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

GM 1724 Global Transportation Label

Supplier Type	Required
Bulk	✓
Unitized	✓

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).

All questions regarding GM 1724 Global Transportation Labels, please email GMNALabelValidation@gm.com or use the link below to access the standards:

If you are not logged into GMSupplyPower, please do so and navigate through the following screens:

GMSupplyPower > Collaborate > Document Library - General Motors. In the search box, enter "GM1724 Global Transportation Label Standards" to find all pertinent 1724 information.

SUPPLIER NAME FROM ADDRESS LINE 1 FROM ADDRESS LINE 2 FROM ADDRESS LINE 3 EMAIL PHONE CONTACT ASSEMBLED/MADE IN XX		GM PLANT NAME TO ADDRESS LINE 1 TO ADDRESS LINE 2 TO ADDRESS LINE 3 PLANT CODE		
160 12345678 UN 123456789 A2B4C6D8E		LC 15C 90 OCT 2017 10 KG		
BO3456789 PCI - CODE VALUE Z13 PCI - CODE VALUE Z16 PCI - CODE VALUE Z17 EXP DATE: 01FEB2017		MASTER LABEL		SUPPLIER AREA

1724-A Container Shipping Label

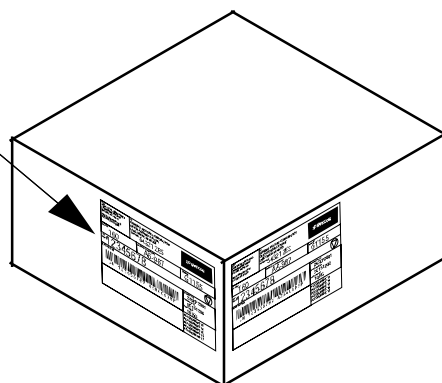
SUPPLIER NAME FROM ADDRESS LINE 1 FROM ADDRESS LINE 2 FROM ADDRESS LINE 3 EMAIL PHONE CONTACT ASSEMBLED/MADE IN XX		GM PLANT NAME TO ADDRESS LINE 1 TO ADDRESS LINE 2 TO ADDRESS LINE 3 PLANT CODE		
160 12345678 UN 123456789 A2B4C6D8E		LC 15C 999 10000 10 1000		
MASTER LABEL		SUPPLIER AREA		SUPPLIER AREA

1724-B Same Part Number
(Pallet Level)

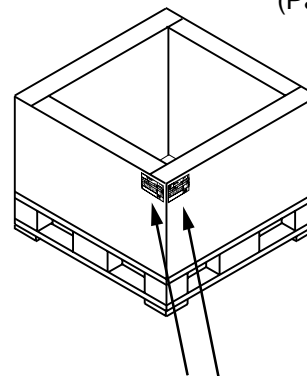
SUPPLIER NAME FROM ADDRESS LINE 1 FROM ADDRESS LINE 2 FROM ADDRESS LINE 3 EMAIL PHONE CONTACT ASSEMBLED/MADE IN XX		GM PLANT NAME TO ADDRESS LINE 1 TO ADDRESS LINE 2 TO ADDRESS LINE 3 PLANT CODE		
12345678 1000 5 @ 200 52345678 1000 5 @ 200		22345678 1000 5 @ 200 62345678 1000 5 @ 200		
UN 123456789 A2B4C6D8E		99999 KG		SUPPLIER AREA

1724-C Mixed Load
(Pallet Level)

SUPPLIER NAME FROM ADDRESS LINE 1 FROM ADDRESS LINE 2 FROM ADDRESS LINE 3 EMAIL PHONE CONTACT ASSEMBLED/MADE IN XX		GM PLANT NAME TO ADDRESS LINE 1 TO ADDRESS LINE 2 TO ADDRESS LINE 3 PLANT CODE		
160 12345678 UN 123456789 A2B4C6D8E		LC 15C 90 OCT 2017 10 KG		
BO3456789 PCI - CODE VALUE Z13 PCI - CODE VALUE Z16 PCI - CODE VALUE Z17 EXP DATE: 01FEB2017		MASTER LABEL		SUPPLIER AREA



Example of 1724-A label on box.



SUPPLIER NAME FROM ADDRESS LINE 1 FROM ADDRESS LINE 2 FROM ADDRESS LINE 3 EMAIL PHONE CONTACT ASSEMBLED/MADE IN XX		GM PLANT NAME TO ADDRESS LINE 1 TO ADDRESS LINE 2 TO ADDRESS LINE 3 PLANT CODE		
160 12345678 UN 123456789 A2B4C6D8E		LC 15C 999 10000 10 1000		
MASTER LABEL		SUPPLIER AREA		SUPPLIER AREA

Example of 1724B-all same part number load.

FAQs for the GM 1724 Label

- 1) 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
- 2) 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.
- 3) Q: Does the weight have to be in kilograms?
A: Yes
- 4) 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 {e.g. 1216, 0A045038, etc.} 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.
A: **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.
A: **GM 1724-C:** This label is used to identify a pallet of mixed part numbers (different part numbers on a pallet).
- 5) 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.
- 6) 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.
- 7) 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".
- 8) 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.
- 9) 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.
- 10) 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.
- 11) 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.
- 12) Q: I am a ship direct supplier, do I need to use the 1724 label?
A: No, but permissible to do so if needed.



Package Label & Layouts

Supplier Type	Required
Bulk	
Unitized	✓

The following sections further define labeling requirements for GM CCA:

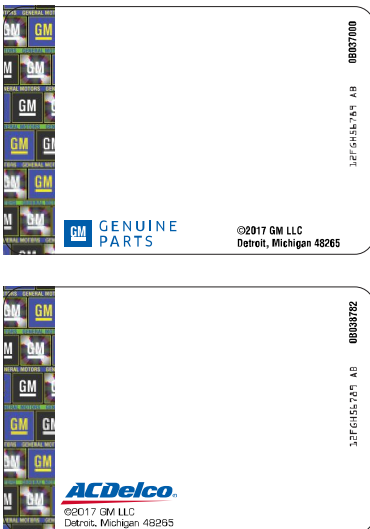
- Unitized Label Layouts
- Graphic Package Layouts
- Standard Core Return Layouts
- Distribution Container & Pallet Unit Load Labeling

Label Brand Portfolio

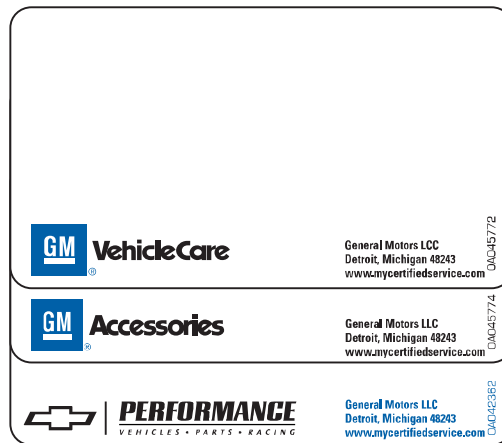
GM CCA's customers require use of several different graphics on our labels and packages. The most common are the Genuine GM and ACDelco product lines. GM Accessories, GM VehicleCare, and Chevy Performance are also valid types of graphics. Graphics are controlled by the packaging specifications. Supplier 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

Security Labels
75mm x 50mm



4" x 2 1/4" Labels



2 1/4" x 1 1/2" Labels



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.

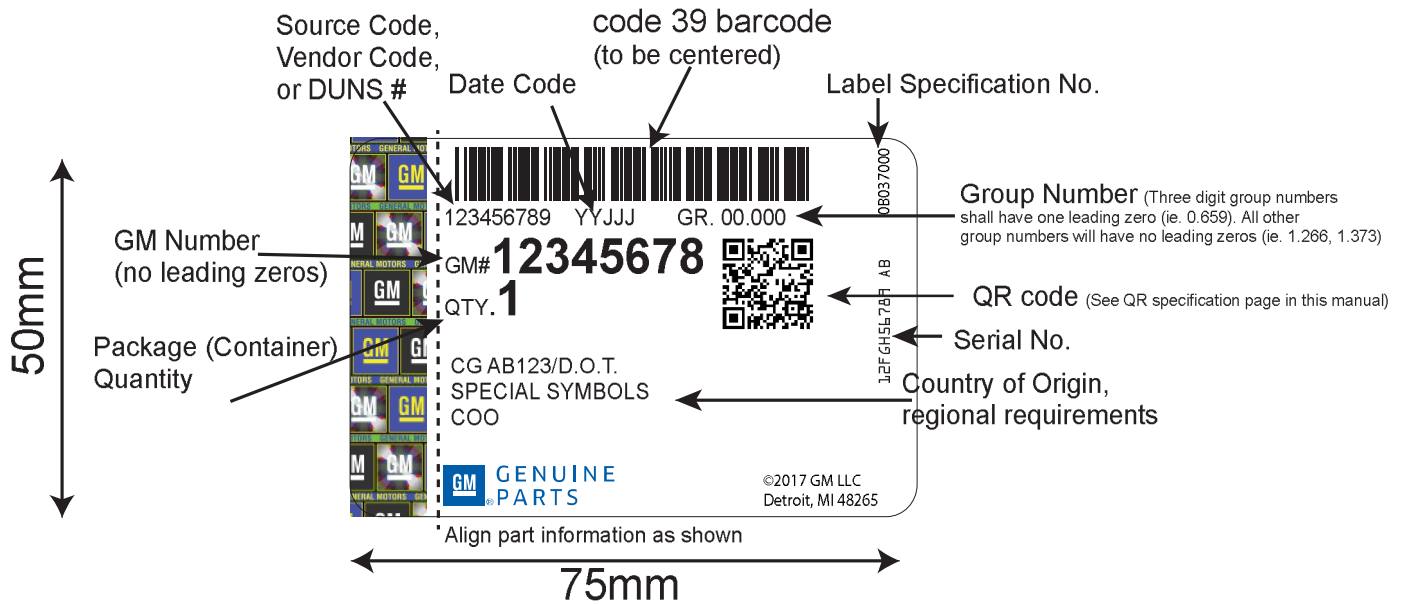
GM CCA product identification standards must be referenced for the exact layout, format and location of imprinted information. The most common label layouts are further defined on the next pages.

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 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.

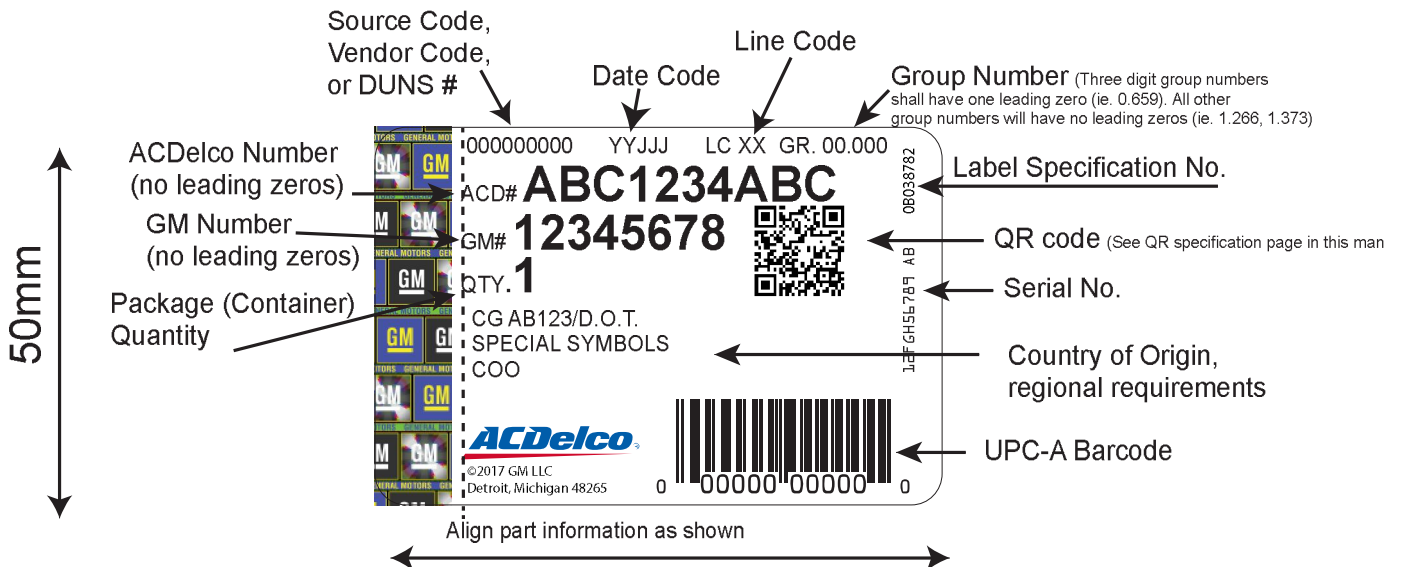
For more information on this opportunity, contact OpSec Security at gmcustomerservice@opsecsecurity.com

Security Label Layouts

GM Security Label Layout



ACDelco Security Label Layout



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

Please see the Service Part Label Data & Format chart on the following pages for acceptable fonts, sizes, and content definition.

For suppliers sending unitized material directly to CCA Mexico, please refer to the additional NOM labeling requirements stored on GM Supply Power (see below for search instructions).

If you are not logged into GMSupplyPower, please do so and navigate through the following screens:
GMSupplyPower >Collaborate> Document Library - General Motors. In the search box, enter "Appendix NOM Labeling Manual GMNA GM Mexico" to find the current CCA document.

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, include any leading zero(s) if less than 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,,

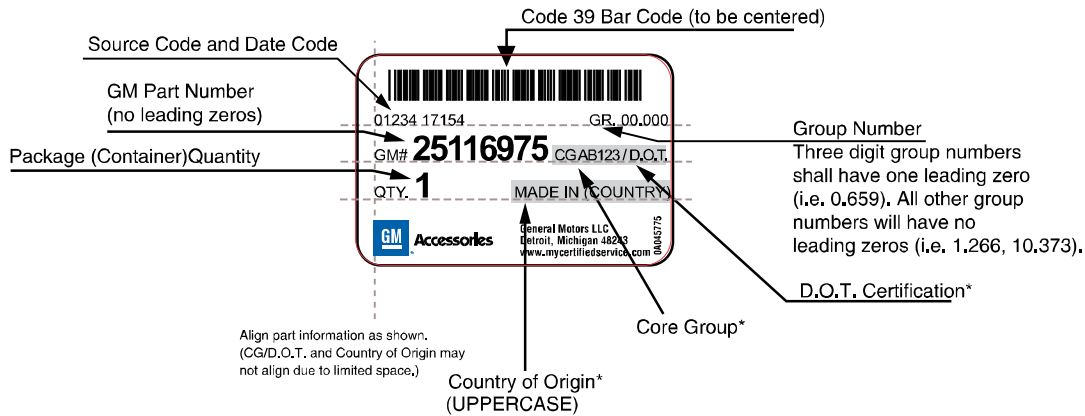




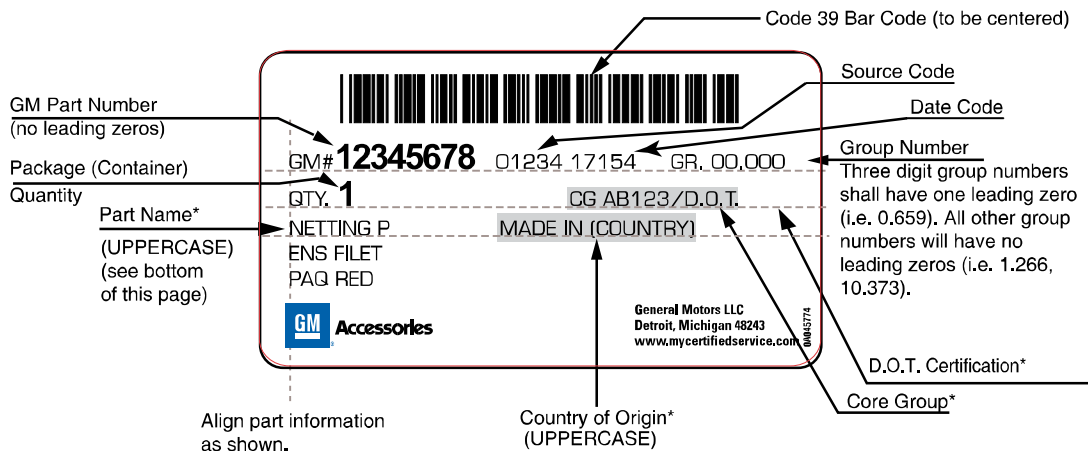
Label Layouts (2 1/4" x 1 1/2" and 4" x 2 1/4")



GM Standard Label Design Elements (2 1/4" x 1 1/2" label)



GM Standard Label Design Elements (4" x 2 1/4" 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

ACDelco
Detroit, Michigan 48243
©1995 GM LLC
www.acdelco.com

ACD123
12345678
QTY. 1
GR. 00.000
CG AB123/D.O.T.
12345 08105
MADE IN
AUSTRALIA

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. 0.659). All other group numbers will have no leading zeros (i.e. 1.266, 10.373).

- Size 48pt. Part Number →
- 48pt. Quantity →
- 18pt. Group Number* →
(.167") ± 10%
- 18pt. Core Group/D.O.T. →
(.167") ± 10%
- 18pt. Source Code and Date Code →
(.167") ± 10%
- 18pt. Country of Origin →
(.167") ± 10%

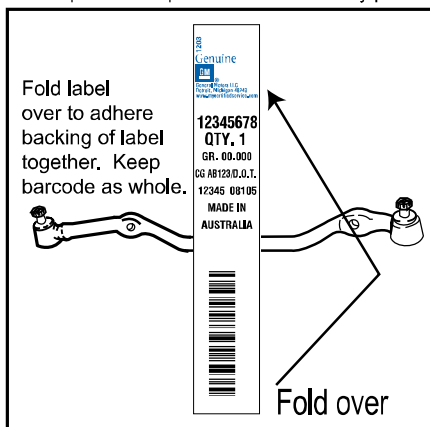
1203 (1") LABEL

1203
Genuine
GM
General Motors LLC
Detroit, Michigan 48243
www.mycertifiedservice.com

12345678
QTY. 1
GR. 00.000
CG AB123/D.O.T.
1234508105
MADE IN
AUSTRALIA

- ← Part Number 16pt.
(.156") ± 10%
- ← Quantity 16pt.
(.156") ± 10%
- ← Group Number* 12pt.
(use periods, no dashes) (.11") ± 10%
- ← Core Group/ D.O.T. 12pt.
(.11") ± 10%
- ← Source Code and Date Code 12pt.
(.11") ± 10%
- ← Country of Origin 12pt.
(.11") ± 10%

Example of label placement on label only parts.



Barcode
(Code 39 follow ANSI specifications)

Barcode
(Code 39 follow ANSI specifications)

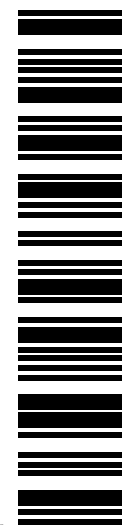
100% UPC Version A Bar Code
(Follows ANSI specifications)

1204

Genuine
GM

General Motors LLC
Detroit, Michigan 48243
www.mycertifiedservice.com

12345678
QTY. 1
GR. 00.000
CG AB123/D.O.T.
12345 08105
MADE IN
AUSTRALIA



GM Standard Core Return Label Layout (4" x 4" label)

Use this label when specified by label 0B034274.

4" x 4" printed example

CORE/NÚCLEO

Code 39 Bar Code (to be centered)

GM Part Number (no leading zeros) → **GM# 12345678**

Date Code → **01234**

Source Code → **14062 GR. 12.270 CG AG123/D.O.T.**

Group Number → **12345678**
Three digit group numbers shall have one leading zero (i.e. 0.659). All other group numbers will have no leading zeros (i.e. 1.266, 10.373).

Package (Container) Quantity → **QTY. 1**

D.O.T. Certification* and Core Group* → **MADE IN XXXXXXXXXXXX**

Country of Origin* (UPPERCASE) → **XXXXXXXXXXXXXXXXXX**

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.
Fascia: Retour de l'article sans emballage. Mettre étiquette amovible sue l'extérieur du core.
Non fascia : Retour de l'article dans emballage d'origine ou emballage alternatif avec étiquette amovible.
Faja: Retorno sin empaque. Peel etiqueta desmontable, adjuntar a exterior de core.
No faja: Regrese en embalaje original o paquete alternativo marcado con etiqueta extraible.

GM Part Number (no leading zeros) → **GM# 12345678**

General Motors LLC
Detroit, Michigan 48243
www.mycertifiedservice.com

0B034274

ACDelco Standard Core Return Label Layout (4" x 4" label)

Use this label when specified by label 0B036231.

4" x 4" printed example

CORE/NÚCLEO

ACD/ GM Part Number (no leading zeros) → **ACD# ABCD-1234**

Line Code/ source code/ date code → **GM# 12345678**

Package (Container) Quantity → **QTY. 1**

D.O.T. Certification* and Core Group* → **LC 12 01234 14062 GR. 12.270 CG AG123/D.O.T.**

Country of Origin* (UPPERCASE) → **MADE IN XXXXXXXXXXXX**

UPC-A barcode → **XXXXXXXXXXXXXXXXXX**

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.
Fascia: Retour de l'article sans emballage. Mettre étiquette amovible sue l'extérieur du core.
Non fascia : Retour de l'article dans emballage d'origine ou emballage alternatif avec étiquette amovible.
Faja: Retorno sin empaque. Peel etiqueta desmontable, adjuntar a exterior de core.
No faja: Regrese en embalaje original o paquete alternativo marcado con etiqueta extraible.

ACD/GM Part Number (no leading zeros) → **ACD# ABCD-1234**

GM# 12345678

ACDelco
Detroit, Michigan 48243
©1995 GM LLC All Rights Reserved.
www.acdelco.com

0 00000 00000 0

0B036231

Contact supplier below to obtain this label if needed:

Advanced Marketing Partners

Phone: 734-422-7180

email: marks@advancedmarketingpartners.com

GM Amazon Label Layouts

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

OPTION 1:

Supplier can print both barcodes (code 39 and UPC-A) on same label, this format can only be used with the 4" x 2-1/4" sized 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 mix up).



Graphic Carton Imprint Layouts

All printing on graphic cartons must conform to unitized label layouts.

Certain information must be on the carton:

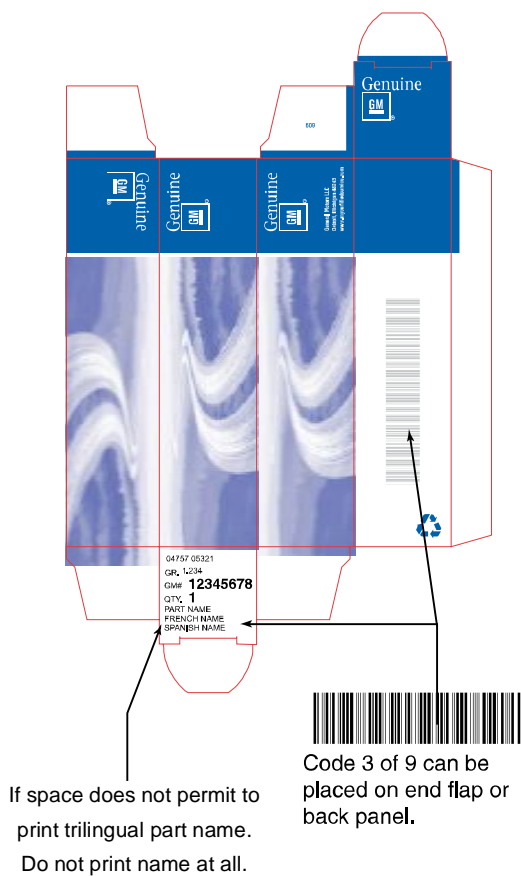
GM Packages	ACDelco Packages
Date code/source code	Date code/source code
Country of Origin	Country of Origin
GM Part Number	GM Part Number
Barcode	Barcode
Quantity	Quantity
	Line Code
	ACDelco Part Number

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:

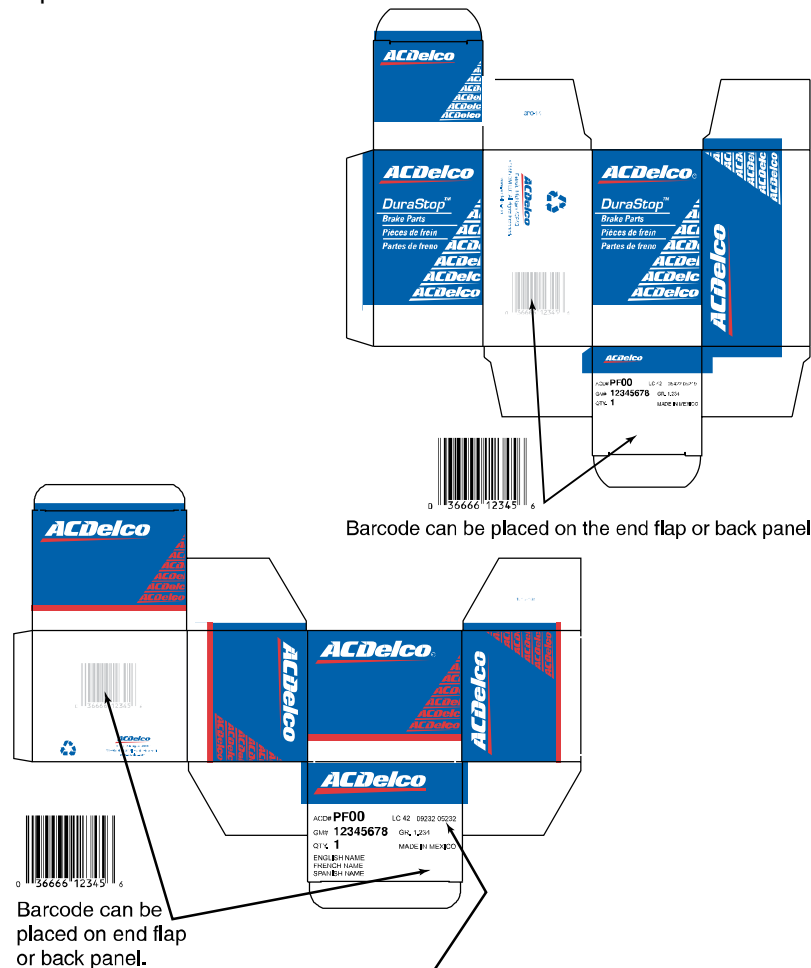
- 1) Imprinted directly onto a graphic carton on the white/non-graphic area of package.
- 2) Printed onto a white label then applied to a graphic carton with label placed on non-graphic area.

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.



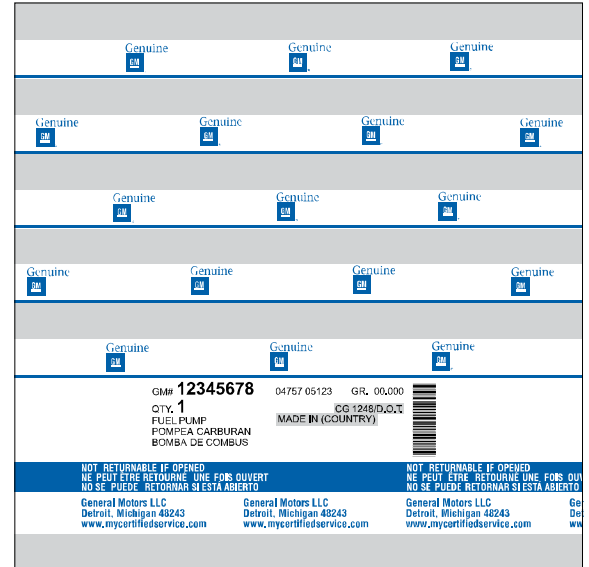
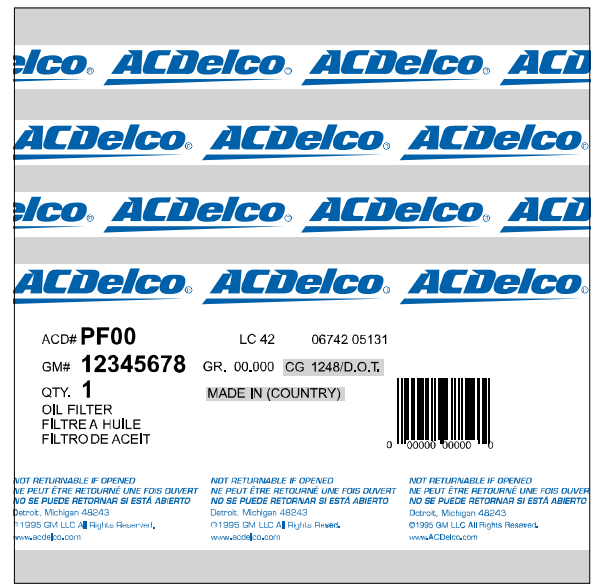
Code 3 of 9 can be placed on end flap or back panel.



Barcode can be placed on end flap or back panel.

Product ID layout to conform to the Design Element Standards of this Manual.

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



- ## GM Customer Care and Aftersales Packaging Standards & Requirements

Service Part Label Data & Format

	Font Size (Min pt.)	Font	Content
Part Number	18- BOLD	GM- Arial, Helvetica (except oblique) or Stone Serif ACDelco- Arial, Eurostile, Universe 47 or 67 Condensed	GM- Numerals left to right ACDelco- numerals, and in some instances, letters left to right
Quantity	18- BOLD		Numerals left to right
Country of Origin (no abbreviations)	8, except for Canadian COO which can be 5.5		"MADE IN", "ASSEMBLED IN", "PRODUCED IN", "PRODUCT OF", "MANUFACTURED IN" followed by the English name of the country of origin
Source Code	8		GM CCA 5 digit source code as established by the GM CCA Supply Chain Dept. Also available in the label data from Global PKG website.
Date Code	8		Julian Date code of when part was packaged- two digit year followed by three digit Julian Date
Line Code	8		For ACDelco part numbers ONLY
Group Number	8		Three digit group number shall have one leading zero (ie. 0.659), all other group numbers will have no leading zero (ie. 1.266)
Core Group	8		(CG) number is only required for certain parts and is shown with a number in the Core Group Field
D.O.T.	8		Only required on for certain parts and is shown as a 1238 label requirement
Code 39 Barcode (GM)	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.		
UPC A Barcode (ACDelco)	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. Uniform Code Council - www.gs1us.org		

Approved Label Supplier List

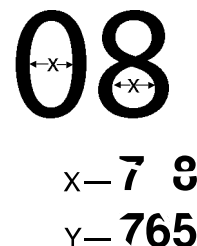
Supplier Name	Contact Name	Telephone	Email	Available GMCCA Label Specification #'s
Advanced Systems & Forms	Mark Schmidt	734-422-7180, x 19	marks@advancedmarketingpartners.com	1203, 1204, 1207, 1216, 0A045038, 0A045039, 0A044526, 0B035864, 0B034274, 0A045774, 0A045775, 0A042362, 0A045772, 0A045773, 0A062935, 0A084596, 0A084657, 0A085450, 1427, 0A060856, 0A083470, 0B036231
Mac Arthur Corp.	Tressela Gilbert	810-606-1777 x109	tressela.gilbert@macarthur.com	1203, 1204, 0A042362, 0A044526, 0A045772, 0A045773, 1724A-C
OpSec Security, Inc.	Susan Bond		gmcustomerservice@OpSecsecurity.com	0B037000, 0B038782
Whittlam Label Co., Inc.	Hannah Peterson	586-757-5100 x272	hpatterson@whittlam.com	1203, 1204, 0A045772, 0A045773, 0A045774, 0A045775, 0A042362, 0A044526, 0A060856, 1724A-C

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:

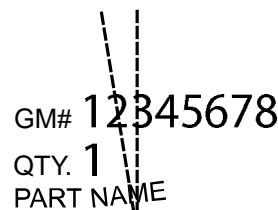
- Imprinting ink color to be black unless specifically accepted by special individual container artwork, or special packaging instruction.

Imprinted chipboard and corrugate containers:

- Ink color can be black or the same color as the printed carton graphics.

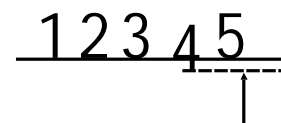
Alignment-Vertical

- 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 $\pm 3^\circ$. (See illustration to the right.)



Horizontal

- Characters must be in line with each other on a horizontal line within $\pm 5\%$ of the character height.
- The horizontal line must be parallel to the container graphics or container edge for non-graphics containers within $\pm 3^\circ$. (See illustration to the right)



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

Source Code
(Example)

17

Year
(2017)

033

Julian
Date

To appear on package: 01234 17033

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

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

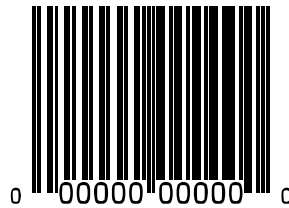
- The data encoded in the Code 39 barcode is the GM part number only. No leading zero's, no asterisks and no data identifiers. The Code 39 barcode "field" should be centered on the label.
- Symbol size for Code 39 is variable. The height is .2 inches or 15% of length whichever is greater. The length 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:



ACDelco Product: UPC Version A

Example of a UPC-Version A barcode:



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

Example of a UCC-14 barcode:

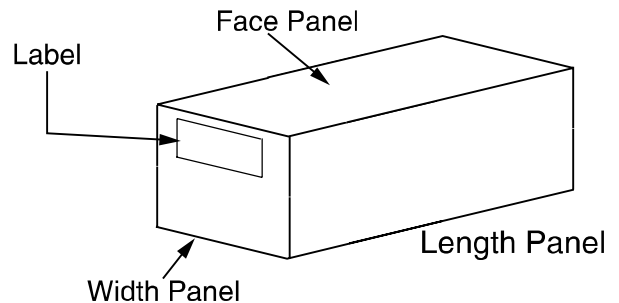
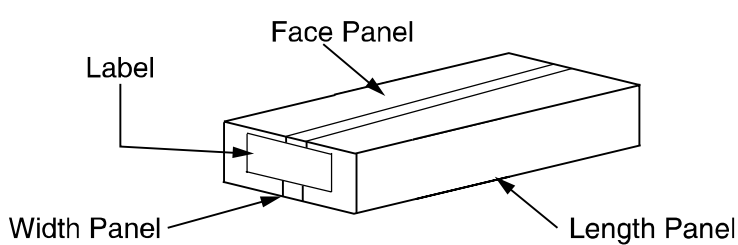


Non-Graphic Merchandise Pack Label Placement

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



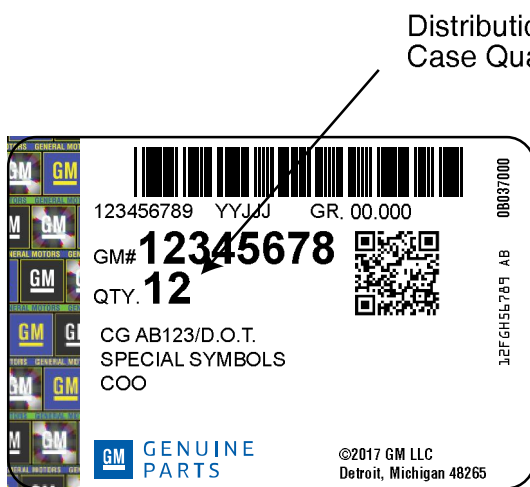
Distribution/Unit Load Labeling

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 part numbers. This layout includes Code 39 bar code.



The format shown is use for Genuine Parts label.



The format shown is also used for the GM Accessories
GM Vehicle Care and Chevrolet Performance Parts labels.

**GM Customer Care and Aftersales
Packaging Standards & Requirements**

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 Security Label Layout" section with two additional requirements:

- Use the UCC-14 bar code.
- Use distribution case quantities in place of merchandising package quantities.
- No QR code required (Optional)

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.

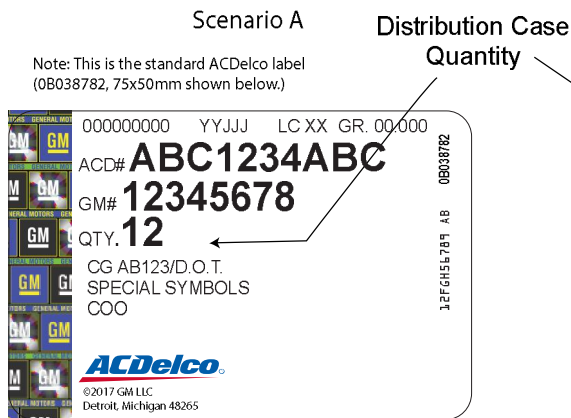
The Product Identification and UCC-14 bar code can be printed in the following manners:

- a) plain white label - with graphic label (shown below - Option A)
- b) bottom of graphic product identification label (shown below - Option B)
- c) in the body of the ACDelco Security Label (shown below - Option C)

Refer to the barcodes page in this manual for barcode sizes. 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.

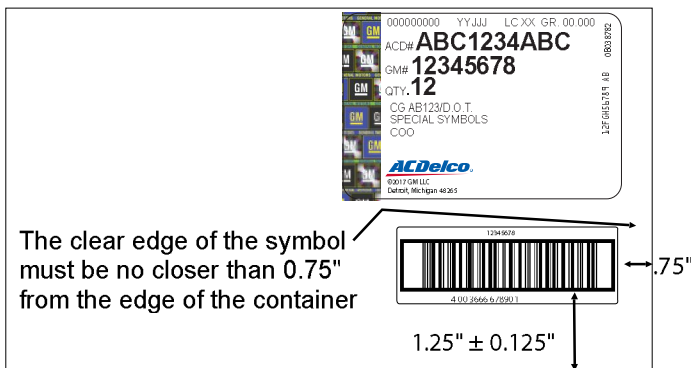
Option A - Label #0B038782



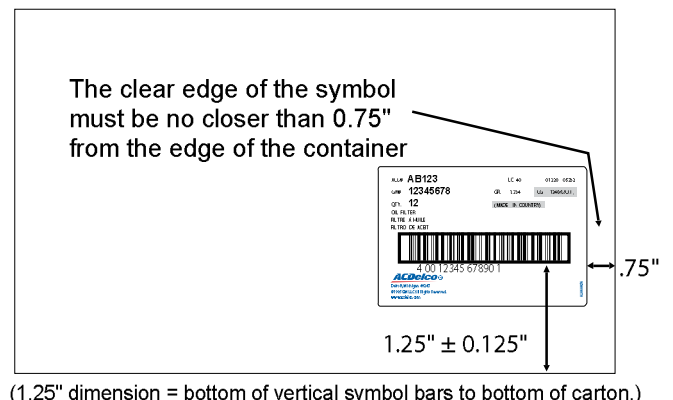
Option B - Label # 0A060856



UCC-14 Bar Code (I 2/5)



(1.25" dimension = bottom of vertical symbol bars to bottom of carton.)



(1.25" dimension = bottom of vertical symbol bars to bottom of carton.)

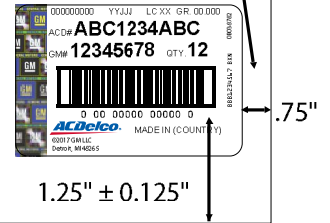
Option C - Label #0B038782 Only

Scenario C

Note: This is the standard ACDelco label (0B038782, 75x50mm shown below.)



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

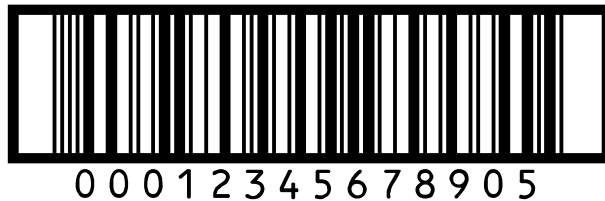


(1.25" dimension = bottom of vertical symbol bars to bottom of carton.)

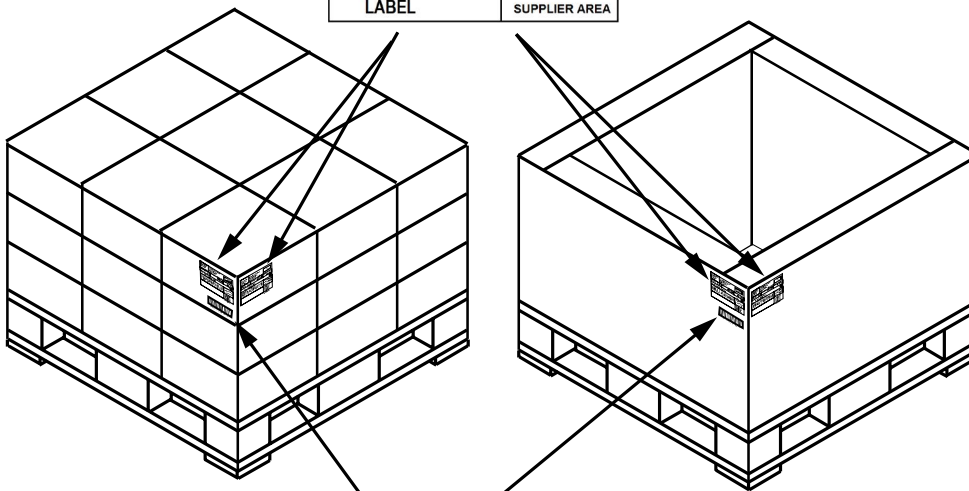
Unit Load UCC-14

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.



UCC-14 barcode (12 of 5)



Overpack Cartons

Supplier Type	Required
Bulk	✓
Unitized	✓

An overpack carton 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 overpack carton must deliver damage free product with full container integrity to the GM CCA receiving point.

Requirements for Overpack Cartons

1. Bags, drums, barrels, bales, cans, pails, or wooden kegs are not acceptable shipping containers for other than granular or liquid materials.
2. Overpack cartons must be constructed of a minimum of 200# burst test (32 ECT optional) corrugate.
3. Cartons must have a stitched or glued manufacturers joint.
4. Overpack cartons (unless weight of individual part is over 25 pounds) must not exceed **25 pounds total weight** (weight of the part + package). An overpack carton is optional if the part is source unitized and packaged in a corrugated box, minimum 200 lb. burst or 32 ECT.
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.
7. A graphic package must be shipped in an overpack carton, unless the graphic box is corrugated, minimum 200 lb. burst or 32 ECT.
8. If shipping parts less than unit load or pallet quantity, the overpack carton should be proportionately sized.

Graphic Packages



+



Dunnage



1724 Label

Small Bulk Parts



+



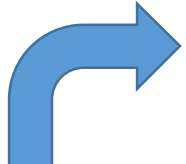
Container Closure

Supplier Type	Required
Bulk	
Unitized	✓

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 on the GM CCA Global Packaging Website (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. Specific closure instructions for each style of carton can be found on the dashboard of the GM CCA Packaging Website within the document titled "Container Closure Requirements by Carton Style".

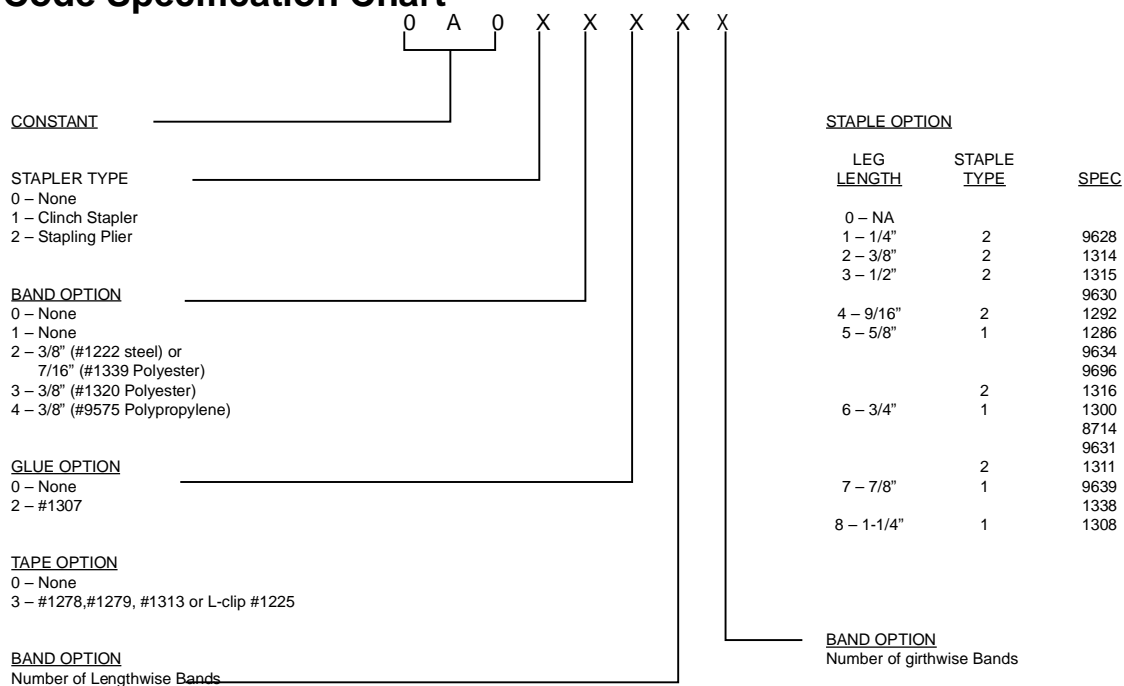
The Boxmaker's certificate must be visible after the closure method is applied. In absence of a specified closure code for cartons, the closure must be capable of containing the part within the carton or bag and arrive to the GM CCA receiving facility damage free.



Pkg Type Code	GMSP0 No	Qty	Amount	Name	Source Part	Style
L	00001207	1	0	LABEL		PRES SEN
M	00002280	1	0	CORR BOX		SPECL
S	00004902	1	4	PLAST PCH		
C	0A011235	1	0	GEN MATERL		CLOSURE

If you see a "C" under PKG type, a closure code has been added. Refer to the closure code specification chart below.

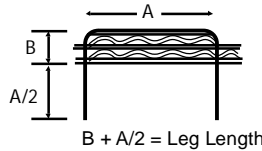
Closure Code Specification Chart



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:



Both legs shall be properly clinched as shown.



Hot Melt Adhesives

- Glue strips must be applied to 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).

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 meeting 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.

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, i.e. 5/bag, 10/bag.

* 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, subpacks can be printed with the GM part number only.

Palletization Requirements

Supplier Type	Required
Bulk	✓
Unitized	✓

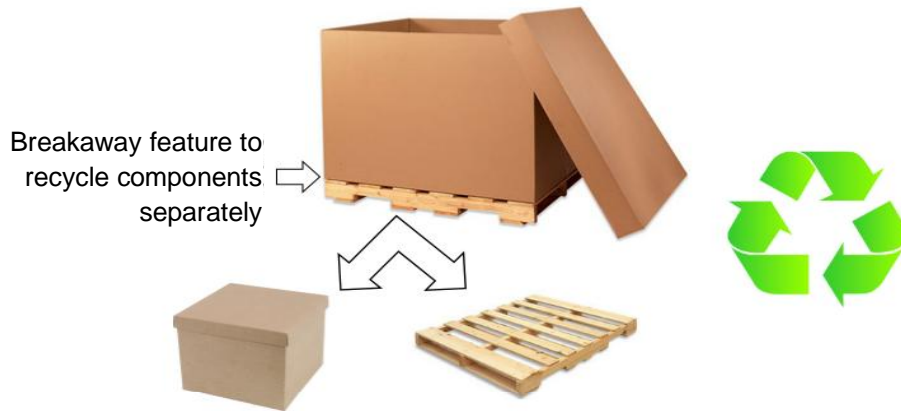
Pallet and shipping container performance is the responsibility of the supplier. **In all cases, bulk and unitized material must be delivered damage free with full container integrity to GM CCA receiving points.**

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. The ISPM mark must be visible.

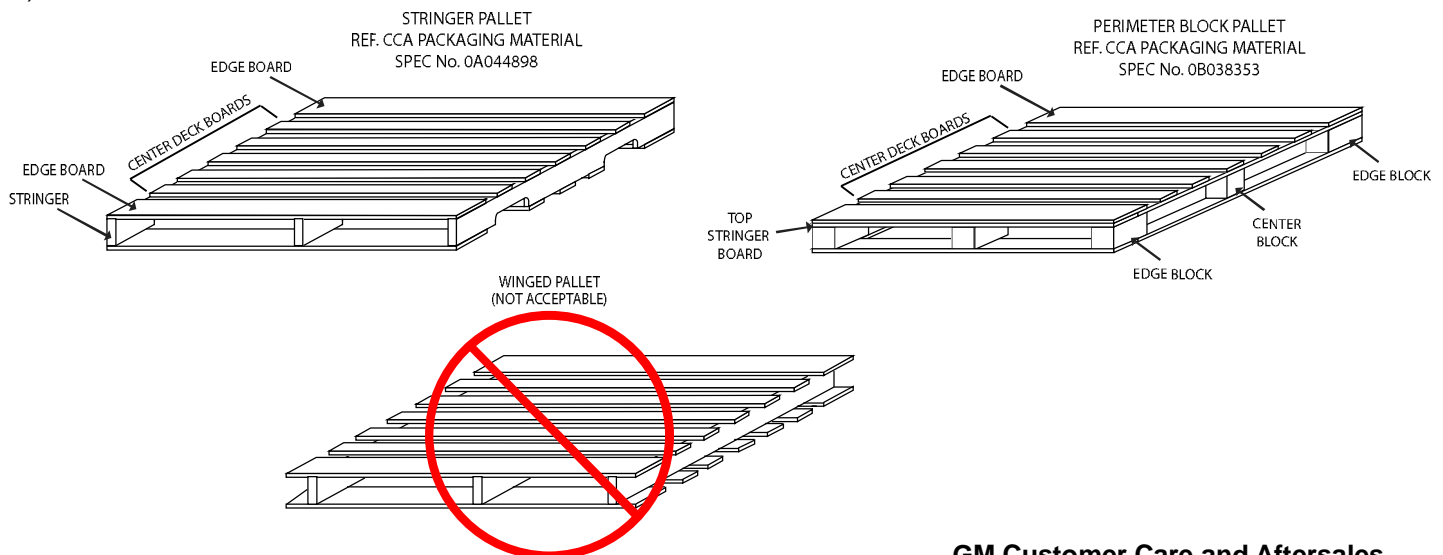
This includes all materials shipped intrastate in the U.S.A. and shipments to and from Canada.

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.



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” x 40” 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.

Unitized or Bulk	Required or Preferred	Length	Width	Height ¹
Unitized ²	Required	48"	40"	45"
		1200mm	1140mm	1143mm
Bulk ²	Preferred	48"	40"	50"
		48"	45"	50"
		< 48" ³	< 45" ³	50"

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:

Region	Bulk		Unitized	
United States GM CCA	2500 lbs	1134 kg	1650 lbs	748 kg
Canada GM CCA	1650 lbs	748 kg	1650 lbs	748 kg
Batteries -US and Canada GM CCA	2800 lbs	1270 kg	2800 lbs	1270 kgs

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 $\pm 1/8$ " apply to all dimensions below.

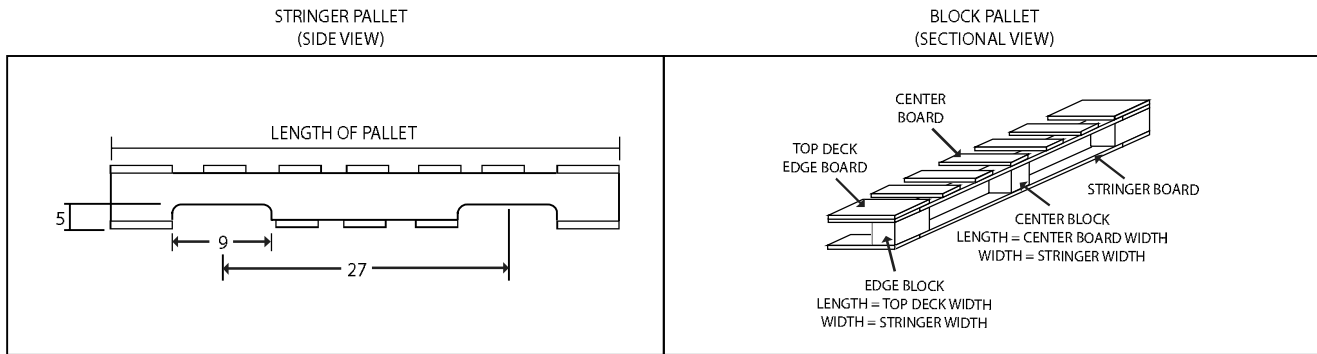
All Pallets, regardless of size, must meet the stringer and block requirements below:

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" x 40" 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.

No pallets with stringer or block repairs are permitted. All broken or split deckboards must be replaced

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 Boards

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

Center Deck 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.

Undersize Pallet - Exception for Supplier's with Bulk Contract

Undersize pallets have a length and/or width less than a typical 48" x 40" pallet but greater than or equal to 32" x 30". Construction of a small or undersize pallets must follow the same guidelines stated above in the "48"x 40" & 48" x 45" Pallet Requirements" with the exception that undersized stringer pallets may be 2-way (no notches) depending on stringer length, the minimum of three stringers may 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.

Oversize Pallet

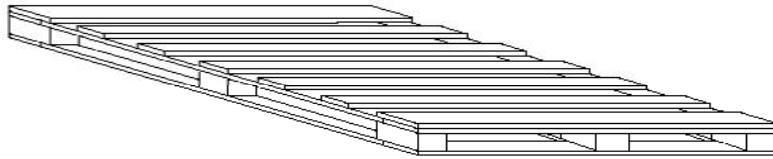
An oversize pallet is permissible only if dictated by the part size. If the pallet is >48" in length and/or ≥ 45 " in width, then a minimum board thickness of 5/8" and a width 4" width boards must be used. No more than 7" between top deck boards.

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).

Oversize- Block Pallet (REQUIRED by 1/1/2019):

Oversize block pallets are REQUIRED 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.

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.



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.

Board Width	Min. Number ¹ of Nails Per Connection of Single-Use or Reusable Pallets
Up to 5-1/4"	2
5-1/4" up to 7"	3
7" to 8"	4
Corner Block	3 ²
Center Block	2

¹ No less than one nail per 8 sq. inches of block fastening surface

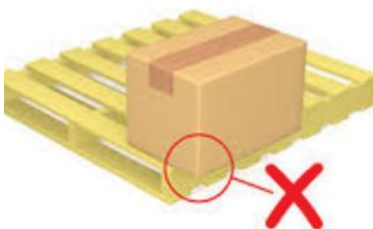
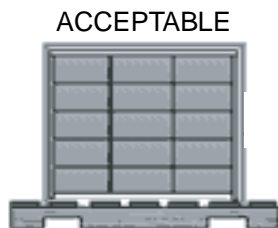
² Corner blocks with less than 16 sq. inches of block fastening surface shall be connected with at least two (2) fasteners

No protruding 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

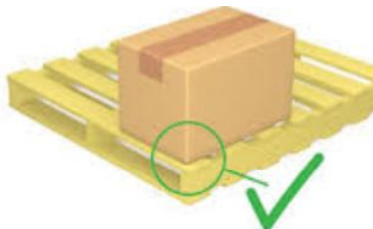
Load Arrangements

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 of similar parts 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 OF A SINGLE PART NUMBER.** If less than a full pallet of a single part number is ordered, the top layer may not be parallel, and this is acceptable. For example, a full unit load is 15 parts (TI=5, HI=3) and the order was only for 11 pieces. It is acceptable to ship two layers of 5 parts with the top layer only containing 1 part.
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.). Please refer to the Container Closure section for acceptable banding materials.
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 or individual cartons 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.

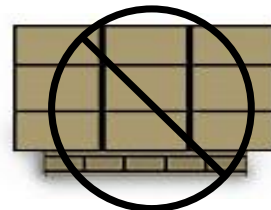
Strapping Example



UNACCEPTABLE

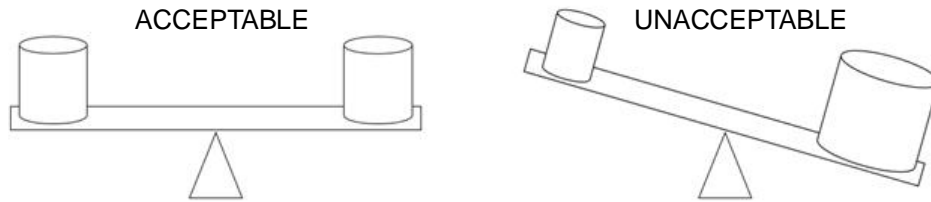


ACCEPTABLE



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

Weight Distribution Example



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. When shipping bulk material, if an individual carton weighs >40lbs then a pallet needs to be used due to handling issues.
17. For supplier shipments of unitized materials, the specified unit load quantity must not be exceeded when shipping to CCA facilities. The unit load quantity can be found on the GM CCA packaging website: gm.gpkg.com. (Refer to the "Definition of Unitized" section in this manual to review specifics on unitized packaging.)

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.
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.
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.).

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

GM CCA Hazardous Material Requirements

Supplier Type	Required
Bulk	
Unitized	✓

The supplier will abide by the U.S. Government Regulations when shipping Hazardous Materials. The information can be found at the following website: <http://www.fmcsa.dot.gov/safetysecurity/hazmat/hm-theme.htm>

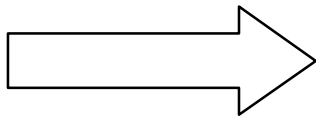
General Packaging Overview

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.

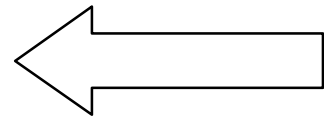
- Outer Packages: all packages all of the time for hazardous material/dangerous goods must be designed and constructed to limit exposure to people or the environment through conditions of normal transportation. The required testing is specified in the regulation and is dependent on the part type.
- Inner 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).
- Palletized 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

For questions regarding Hazardous Materials, e-mail: gmccadgt@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

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
- If part marking not incorporated within the service label, place next to service label to be visible to customer.

Examples of Parts Marking requirements:



Brazil - InMetro



California and Washington – Copper in Brakes



KC – Korea

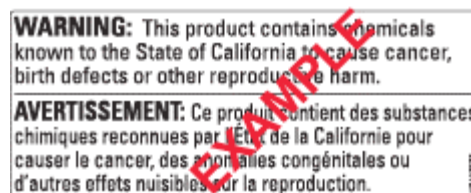
Substance of Concern (SoC) Regulations

- 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:



GHS (standards can differ by country)



California – Proposition 65

All questions regarding Substance of Concern (SoC) or Parts Marking, e-mail:

CCA.substanceofconcern.partsmarking@gm.com