GM1724 Global Transportation Label Review

Updated 2017 Documents

Updated March 2018

Welcome to GM supplier label compliance meeting.

GENERAL MOTORS

Agenda

- ✓ Introduction of GM label team members
- ✓ Highlight of changes.
- ✓ Detailed review of changes to GM1724a individual container requirement
- ✓ Review changes to GM1724b master label
- ✓ Review changes to GM1724c mixed load label
- ✓ Opel/Vauxhall move to PSA. Questions email GTL.validation@opel.com
- ✓ Questions.

Introductions

Email address for validation: gmnalabelvalidation@gm.com

James (Jim) Graham – GMNA/Global lead

Jose (Alonso) Acuna– GMNA contact

Kris Hammis – GMNA contact

P. Sadagopan – GMIO/AP lead

Evandro Silvestre – GMSA/Brazil lead

Reason for label verification

GM will be implementing a warehouse management system globally. **Global Transportation label standards and compliance are fundamental requirements to these project.** All suppliers must assure their labels comply with GM1724 standards. There are several changes to address the label issues that are impacting our scanning and tracking of part shipments.

Suppliers will have a period of one year to comply with these new requirements. Failure to take steps to comply will result in the issuing of a PR&R. Continual failure to comply will result in PR&R with cost recovery.

2017 GM1724 changes to standards

Highlight of changes:

1724a individual container labels

- Barcodes will change from a PDF417 to a data matrix barcode symbology.
- The barcode box was expanded to enlarge the barcode resulting in the moving down of the B3 box into become the C2 box.
- The date requirements have changed to include expiration data. This will include new data identifiers for three date styles options within the 2d barcode structure.
- The E2 box will remove some DELJIT segment data and will now include the expiration date or other additional date options required by the GM part design document or SQ.

2017 GM1724 changes to standards

Highlight of changes:

1724a individual container labels (continued)

- Clarified container type must be eight characters.
- Changed the material handling code maximum length to 12.
- Added a single part data only label for fastener suppliers approved by fastener commodity manager.

1724b master labels

- The 2d barcode moved from the E1 box to A3 box and extends down into space next to the C2 box. The “Master Label” title moved to the E1 box.

2017changes to standards

Highlight of changes:

1724b master labels (continued)

- Added primary identifier into the 2d barcode.

1724c mixed load labels

- The 2d barcode moved from the E1 box to D2 box and extends down into space next to the E3 box.
- The Supplier area is moved to the E1 box
- The D2 logistics data is moved to the E2 box.

2017changes to standards

Highlight of changes:

1724c mixed load labels (continued)

- Added wording requiring packaging engineer approval to use mixed load labels. See part 1.

2017changes to standards

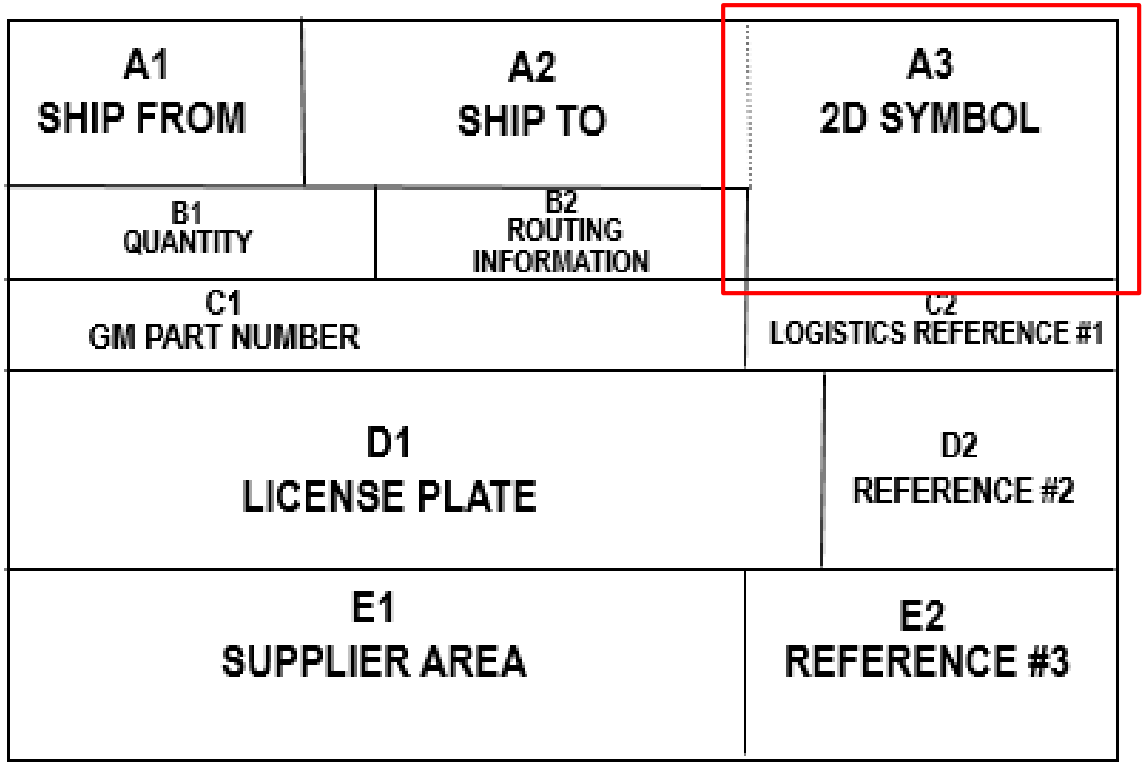
Highlight of changes:

Barcodes

- The 2d barcode will move from a PDF417 style to a Data Matrix style format on all three label styles. 1724a individual container, 1724b master, and 1724c mixed load labels.
- Changed and clarified 1d barcode 128 font and barcode sizing.

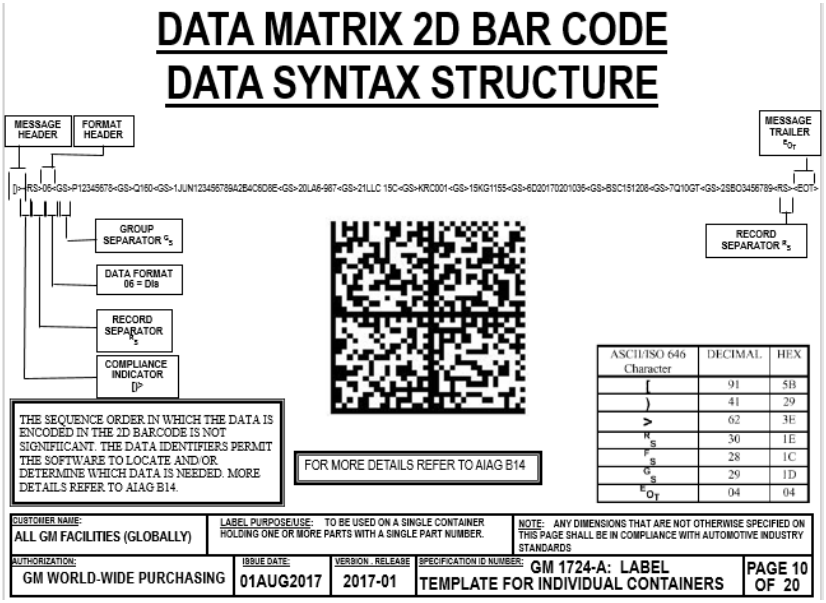
1724a Individual container label

The 2d barcode will be expanded to allow for distance scanning. The logistics data will move down to become the C2 box allowing the A3 2d barcode box to expand.



Barcode changes

2d barcode switch from PDF417 to Data Matrix barcode. This barcode type change will be applied to individual (1724a), master labels (1724b) and mixed load labels (1724c). This is to improve barcode scanning from a distance.



DATA MATRIX 2D BAR CODE
DATA SYNTAX STRUCTURE

MESSAGE HEADER | FORMAT HEADER | MESSAGE TRAILER $^{E}O_{T}$

[)><RS>06<GS>P12345678<GS>Q160<GS>1JUN12345678A2B4C6D8E<GS>20LA6-987<GS>21LLC 15C<GS>KRC001<GS>15KG1155<GS>6D20170201036<GS>BSC151206<GS>7Q10GT<GS>2SBO3456789<RS><EOT>

GROUP SEPARATOR $^{G}_{S}$
DATA FORMAT 06 = DIs
RECORD SEPARATOR $^{R}_{S}$
COMPLIANCE INDICATOR [)>
RECORD SEPARATOR $^{R}_{S}$

THE SEQUENCE ORDER IN WHICH THE DATA IS ENCODED IN THE 2D BARCODE IS NOT SIGNIFICANT. THE DATA IDENTIFIERS PERMIT THE SOFTWARE TO LOCATE AND/OR DETERMINE WHICH DATA IS NEEDED. MORE DETAILS REFER TO AIAG B14.

FOR MORE DETAILS REFER TO AIAG B14

ASCII/ISO 646 Character	DECIMAL	HEX
[	91	5B
)	41	29
>	62	3E
$^{R}_{S}$	30	1E
$^{F}_{S}$	28	1C
$^{G}_{S}$	29	1D
$^{E}O_{T}$	04	04

CUSTOMER NAME:	LABEL PURPOSE/USE:	NOTE:
ALL GM FACILITIES (GLOBALLY)	TO BE USED ON A SINGLE CONTAINER HOLDING ONE OR MORE PARTS WITH A SINGLE PART NUMBER.	ANY DIMENSIONS THAT ARE NOT OTHERWISE SPECIFIED ON THIS PAGE SHALL BE IN COMPLIANCE WITH AUTOMOTIVE INDUSTRY STANDARDS

AUTHORIZATION:	ISSUE DATE:	VERSION . RELEASE	SPECIFICATION ID NUMBER:	
GM WORLD-WIDE PURCHASING	01AUG2017	2017-01	GM 1724-A: LABEL TEMPLATE FOR INDIVIDUAL CONTAINERS	PAGE 10 OF 20

DATA MATRIX 2D BAR CODE
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[)><RS>06<GS>P12345678<GS>Q160<GS>1JUN123456789A2B4C6D8E<GS>20LA6-987<GS>21LLC 15C<GS>KRC001<GS>15KG1155<GS>6D20170201036<GS>BSC151208<GS>7Q10GT<GS>2SBO3456789<RS><EOT>

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$^{E}O_{T}$	04	04

DATA MATRIX
TECHNICAL SPECIFICATIONS

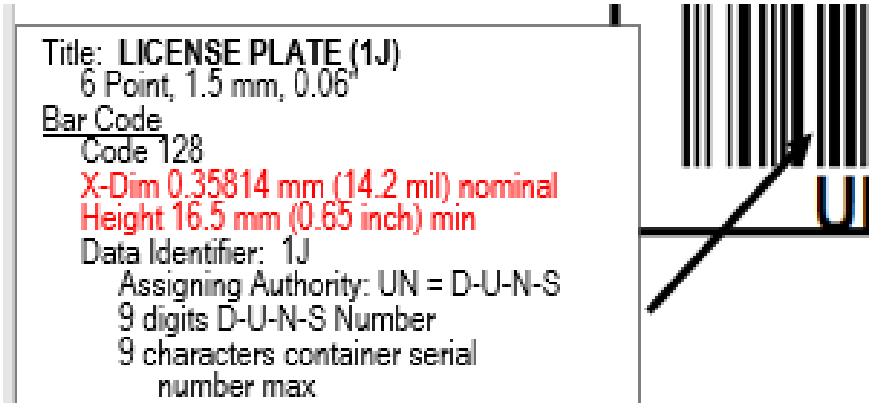
DATA MATRIX BARCODES SHOULD MAINTAINER SQUARE SHAPE. TO ALLOW FOR THE BEST POSSIBLE IMAGER PERFORMANCE, THE LARGEST PRATICAL SIZE ELEMENT/CELL DIMENSION THAT FITS WITHIN THE AVAILABLE AREA SHALL BE USED. QUITE SPACE MUST BE PROVIDED AROUND THE ENTIRE PERIMETER OF THE BARCODE TO HELP SCANNING. THE QUITE ZONE SHOULD BE 2 TIMES THE SYMBOLOGY CELL DIMENSION. FOR SPACE CONSTRAINTS: BARCODE SIZE CHANGES MUST BE AGREED TO BY GM AND SUPPLIER.

IT'S YOUR IMAGE

Your label is the first impression of your company and it's products.
Poorly printed labels, sloppy placement, and unscanable bar codes reflect on the perception of your company.
The shipping label and associated process should receive the same quality efforts as your product - it's your image.

1d barcode sizing.

The X-Dim is the width of the narrowest bar in the symbol. The height is the height of the bars. This sizing is critical for scanning the barcode. The license plate data will be a maximum of 22 characters. The correct sizing will enable scanning. Make sure your X-Dim setting allows you to fit the barcode within the space allowing quite space around the barcode.



1d barcode examples of poor sizing.

Improper barcode X-Dim

Improper barcode height

1d barcode examples of poor sizing.

This grey scaling is often caused by poor quality printer method. The ink can smear.

Improper barcode height

1724a Individual container label

New data identifiers for the date data. Note the date format in barcode is different that visual on the label. YYYYMMDD is the barcode format. The 6D is the identifier for all dates but the date will be followed by a quality for date type.

[)>[R]S06[G]SP12345678[G]SQ160[G]S1JUN123456789A2B4C6D8E[G]S20LA6-987[G]S21LLC 15C[G]SKRC001[G]S15KG1155[G]S6D20170201036[G]SB0000CART[G]S7Q10GT[G]S2SBO3456789[G]S1 5D25AUG2016[R]S[E]O[T]

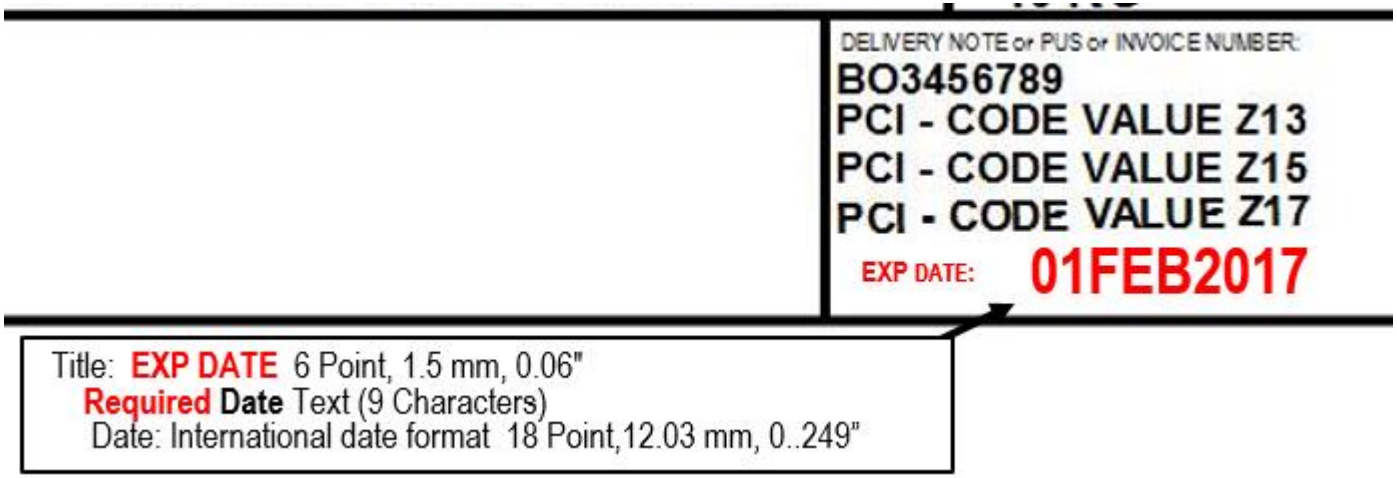
DATA IDENTIFIER (DI)	QUALIFIER	COMMENT	EXAMPLE	WITHIN 2D BARCODE
P	na	TYPICALLY EIGHT(8) NUMERIC CHARACTERS	**P**12345678	REQUIRED
Q	na	TYPICALLY EXPRESSED IN PIECES	**Q**160	REQUIRED
1J	na	HAS STRUCTURE (SEE PAGE 9 of 18)	**1J**UN123456789A2B4C6D8E	REQUIRED
20L	na	DELIVERY LOCATION WITHIN PLANT	**20L**A6-967	REQUIRED
21L	na	IDENTIFIES PLANT AND DELIVERY DOCK	**21L**LC 12C	REQUIRED
K	na	IF REQUIRED AS PART OF GM BUSINESS PROCESS	**K**GM1234	REQUIRED IF PROVIDED
15K	na	IF REQUIRED AS PART OF GM BUSINESS PROCESS	**15K**1155	REQUIRED IF PROVIDED
6D	011	SHIPMENT DATE IF REQUIRED AS PART OF GM BUSINESS PROCESS YYYYMMDD	**6D20161130011**	IF REQUIRED BY GM
6D	036	EXPIRATION DATE IF REQUIRED AS PART OF GM BUSINESS PROCESS YYYYMMDD	**6D20161130036**	IF REQUIRED BY GM
6D	094	PRODUCTION DATE IF REQUIRED AS PART OF GM BUSINESS PROCESS YYYYMMDD	**6D20161130094**	IF REQUIRED BY GM
B	na	GM SPECIFIED PRIMARY CONTAINER NUMBER OR IF NOT SPECIFIED REFERENCE SUCH AS CARTON	**B**0000CART	REQUIRED
7Q	GT	GROSS WEIGHT OF MASTER PACK ROUNDED(NO DECIMALS)	**7Q**999**GT**	REQUIRED
2S	na	IF REQUIRED AS PART OF GM BUSINESS PROCESS	**2S**BO3456789	REQUIRED IF PROVIDED

1724a Individual container label

Suppliers may be required to provide the expiration date on the label and included within the 2d barcode.

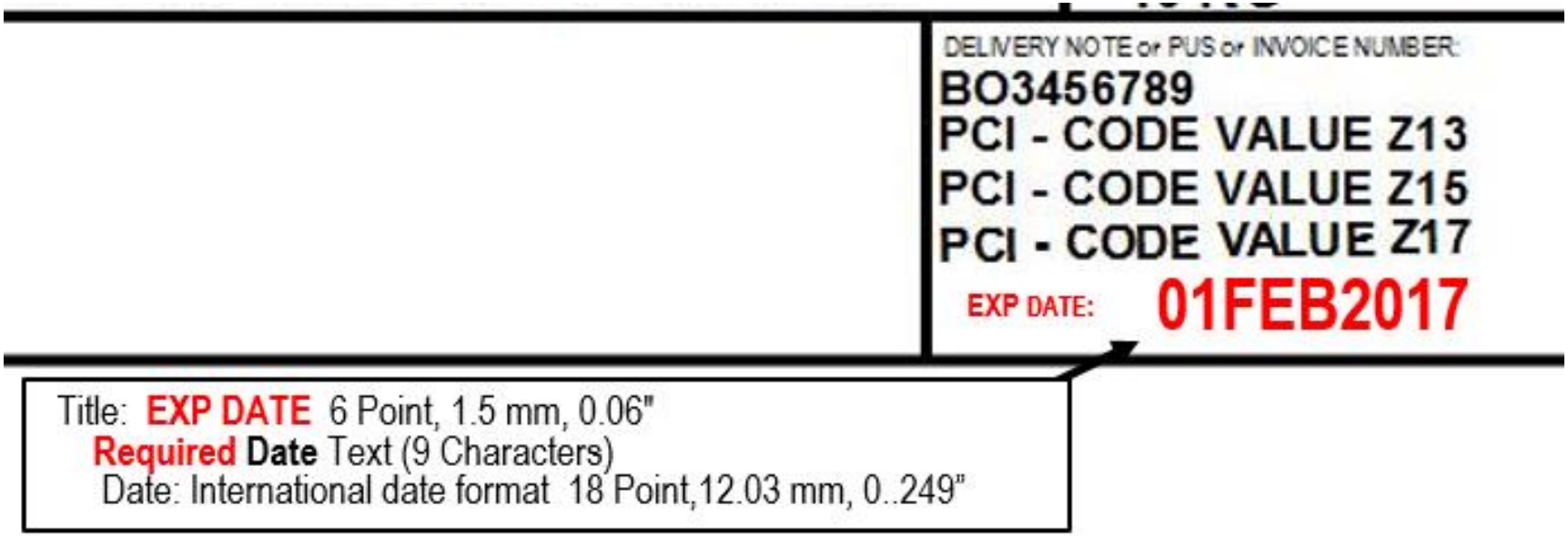
Expiration Date:

-The supplier will reference the part design document or the BOM to determine whether the expiration date is required**.** Identified by Manufacturing Engineering through the Process Failure Mode and Effects Analysis (PFMEA) If the assembly has a dispensed material in the assembly they will need to complete the “use by” expiration date.



1724a Individual container label

The expiration date will be in the E2 box. Note: The Z14 and Z16 DELJIT segments are not required. Supplier will use the international date format on the visual date.



1724a Individual container label

The container type should always be a 8 character code and the material handling codes was expanded to allow 12 characters.

B	na	GM SPECIFIED PRIMARY CONTAINER NUMBER OR IF NOT SPECIFIED REFERENCE SUCH AS CARTON	B0000CART	REQUIRED

Expendable container codes normally have preceding zeros and should be in the ASN.

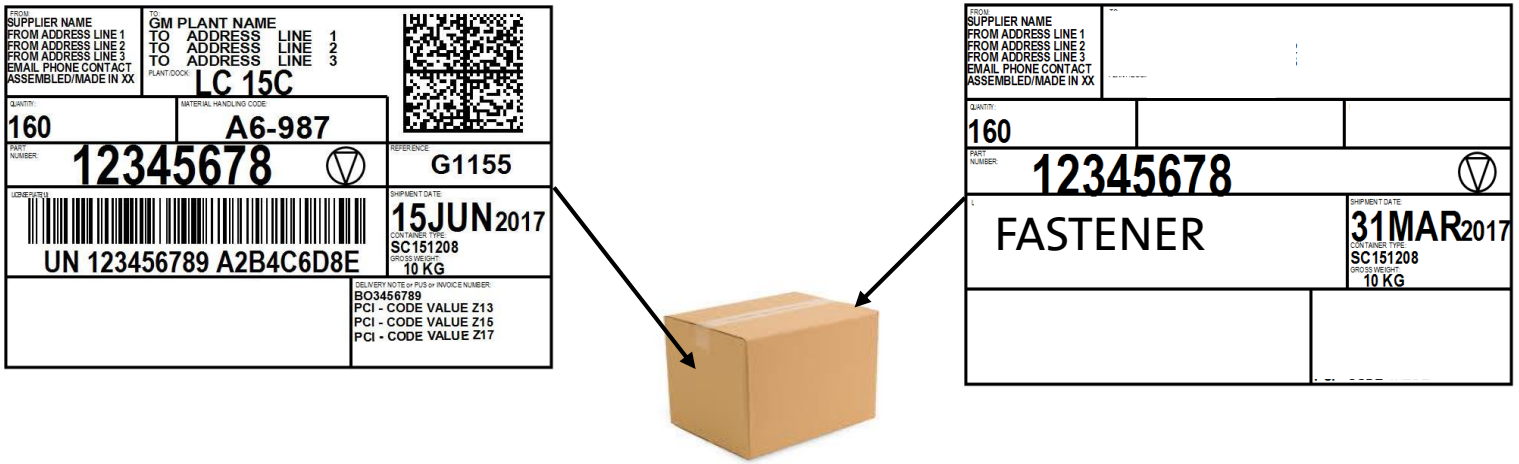
- 0000CART
- 0000PALT
- 0000PCTN

The material handling code font may be adjusted if needed.

Page 5 of GM1724a standards

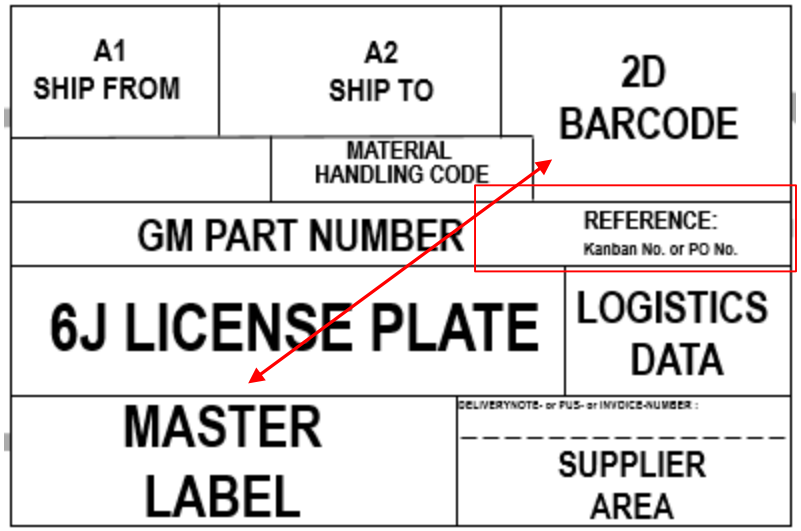
OPTIONAL FASTENER PART DATA ONLY LABEL

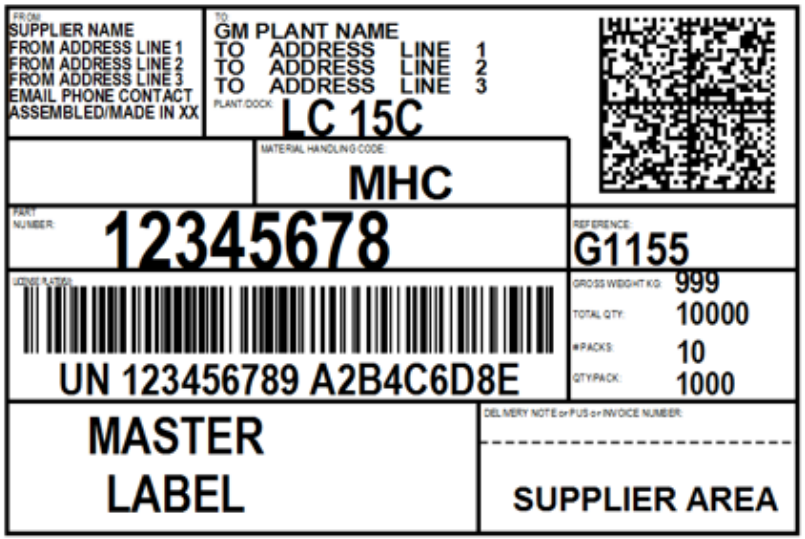
THIS IS A SINGLE, PART DATA ONLY LABEL, AVAILABLE FOR ONLY FASTERNER SUPPLIERS. THE USE OF THESE LABELS MUST BE APPROVED BY THE FASTENER COMMODITY MANAGER. USING THIS PROCESS, FASTENER SUPPLIERS WILL APPLY THIS PART “DATA ONLY” LABEL ON ONE SIDE AND APPLY THE NORMAL INDIVIDUAL CONTAINER “PLANT DATA APPLIED” LABEL.



1724b Master Label

The 2d barcode will move from the E1 box to the A2 box and the “Master Label” title will move from the A2 box to the E1 box. The reference box B3 will move down to become the C2 box. This will allow the larger data matrix 2d barcode for scanning.





1724b Master Label

The master label 2d barcode will include both the primary (B) and secondary container.

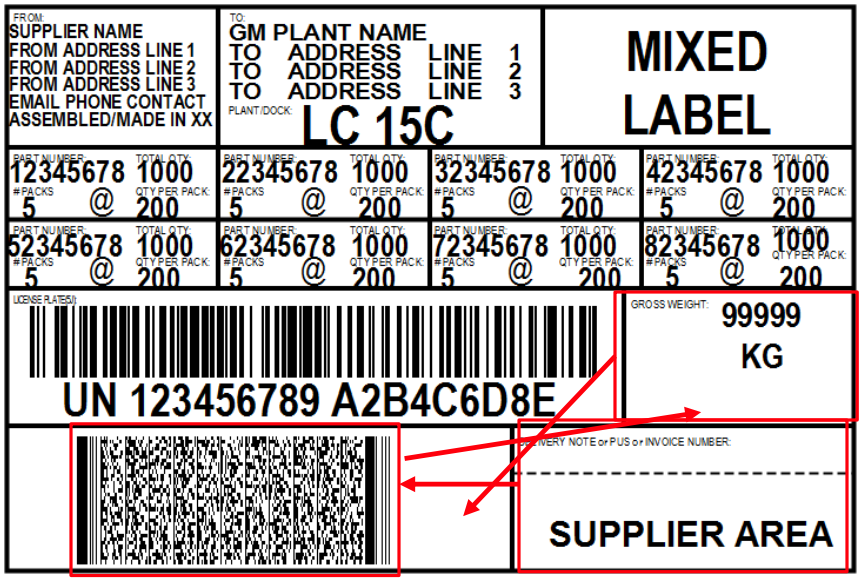
[)>[R]S06[G]SP12345678[G]S7Q10000PL[G]S7Q10PK[G]SQ1000[G]S6JUN123456789A
2B4C6D8E[G]S20LMHC[G]S21LLC
15C[G]S7Q999GT[G]S15KG1155[G]SKONA1A2A3[G]SB0000CART[G]S2SBO3456789[R]S[E]
O[T]

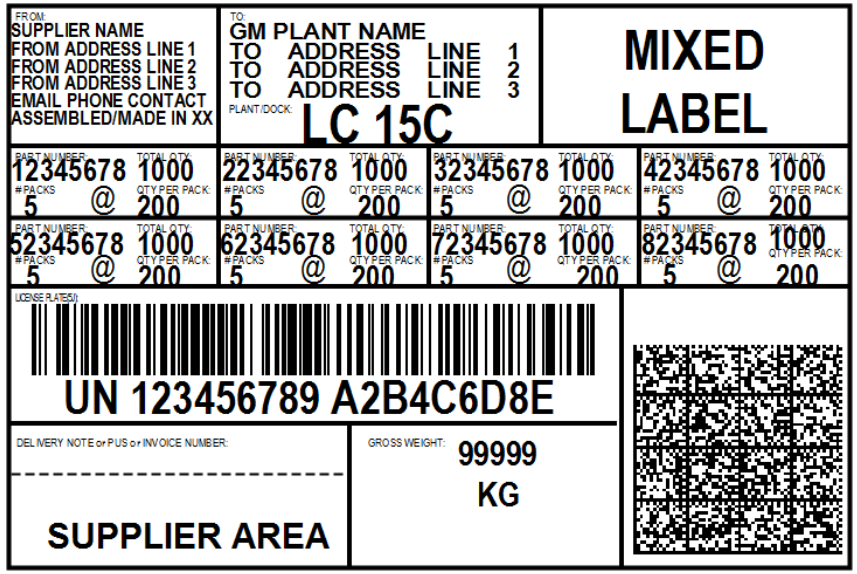
DATA IDENTIFIER (DI)	QUALIFIER	DEFINITION	COMMENT	EXAMPLE	WITHIN 2D BARCODE
P	na	GM PART NUMBER	TYPICALLY EIGHT(8) NUMERIC CHARACTERS	**P**12345678	REQUIRED
Q	na	QUANTITY	QUANTITY PER PACK	**Q**1000	REQUIRED
7Q	PL	TOTAL QUANTITY	TOTAL QUANTITY IN MASTER PACK/PALLET	**7Q**10000**PL**	REQUIRED
7Q	PK	NUMBER OF PACKS	NUMBER OF INDIVIDUAL PACK ON THE MASTER PACK	**7Q**10**PK**	REQUIRED
7Q	GT	GROSS WEIGHT	GROSS WEIGHT OF MASTER PACK ROUNDED(NO DECIMALS)	**7Q**999**GT**	REQUIRED
6J	na	MASTER LICENSE PLATE	HAS STRUCTURE SEE 1724A FOR DEFINATION	**6JUN**123456789A2B4C6D8E	REQUIRED
B	na	PRIMARY CONTAINER NUMBER	GM SPECIFIED PRIMARY CONTAINER NUMBER	**B**0000CART	REQUIRED
20L	na	MATERIAL HANDLING CODE	DELIVERY LOCATION WITHIN PLANT	**20L**A6-967	REQUIRED
21L	na	PLANT/DOCK CODE	IDENTIFIES PLANT AND DOCK LOCATION	**21L**LC 12C	REQUIRED
K	na	PO number identifier	IF REQUIRED AS PART OF GM BUSINESS PROCESS	KPO123456	REQUIRED IF PROVIDED
15K	na	KANBAN NUMBER	IF REQUIRED AS PART OF GM BUSINESS PROCESS	**15K**1155	REQUIRED IF PROVIDED
2S	na	PICKUP SHEET IDENTIFER	IF REQUIRED AS PART OF GM BUSINESS PROCESS	**2SBO3456789**	REQUIRED IF PROVIDED

1724c Mixed Load Label

The layout will change to allow for enlarged 2d Data Matrix barcode

- The 2d barcode moved from the E1 box to D2 box and extends down into space next to the E3 box.
- The Supplier area is moved to the E1 box
- The D2 logistics data is moved to the E2 box.





Suppliers are expected to be compliant with new standards by 01OCT2018.

We look forward to your active efforts to assure label compliance. You can address any questions or concerns to the GM support team.

Supplier Assistance - Resources

Please be advised, of these potential suppliers capable of providing technical assistance to validate label compliance:

1. **Aalstec Data Corp**
   Website: www.aalstec.com

2. **MHSI Global**
   Anuja Deo
   Email: adeo@mhsiglobal.com
   PH: 248-853-5660
   Website: www.mhsiglobal.com

Note: This information is provided for information purposes only. GM is not directly affiliated with Aalstec or MHSI, and GM provides no assurances regarding any services that may be provided by Aalstec or MHSI. Any relationship between you and these suppliers will be governed by separate agreements between you and each of them accordingly.

Q&A

Request for more information send to james.graham@gm.com