

Packaging, Labeling, and Traceability Requirements



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Overview of the packaging and labeling document:

This document has been compiled to assist suppliers in presenting product to AUTOCAR, LLC (“AUTOCAR”) in the correct manner. It is intended to streamline the process and ensure that suitable delivery solutions are chosen early in the supply process.

It is necessary to have a system, which will coordinate the various tasks. This will allow supplier involvement in the process and make use of supplier knowledge of the product and the product’s specific needs. This more formal approach also allows for management the process for mutual benefit.

A “Proposed component packing (PCP)” form is to be completed by the supplier. This is submitted to and approved by AUTOCAR Industrial Engineering during the quotation process. The same form must be used at any time to request a change in packing method/quantity. After approval, a reference number will be allocated to each PCP form. This number is to be attached to the quotation. A packing trial is to be conducted for each approved form. The packing trial is to be clearly marked with the words “Packing Trial-Hold for Materials Engineering” and should include the PCP approval reference number.

Labeling is a cornerstone of one of the most important services AUTOCAR offers to its customers, traceability. Traceability is a critical point to ensuring the safety can compliance of the vehicles AUTOCAR builds. Labeling also helps the AUTOCAR warehouses to operate efficiently and minimizes handling time of the material.

Contained within this guide are the general rules for labels, sizing and placement. It is important that the standard for labeling is understood and followed.

Read this document carefully and ensure that all the requirements specified are incorporated as a procedure for determining packaging and labeling requirements procedures. This will ensure that each situation is addressed in the most effective manner.

Important areas of the AUTOCAR and supplier relationship are defined and explained in the separate sections. This allows use of this guide as a reference whenever required.

Packaging:

Packaging, identification, and traceability components are important aspects of the AUTOCAR business. The following illustrates the basic requirements of AUTOCAR. An electronic copy of this document is available on the Supplier Corrective Action Request (SCAR) website located at scar.autocartruck.com

Packaging Guidelines:

The packaging and delivery of components to AUTOCAR is an important aspect of supplier service. Suppliers are required to develop suitable packaging solutions for the movement product under reasonable and expected handling environments and conditions.

Any material inadequately packaged, alternatively packaged, or not meeting agreed standard package quantities without the consent of AUTOCAR or arriving damaged will be considered as supplier defects. Damage caused by an AUTOCAR or an AUTOCAR designated carrier will not count against the supplier.

- Suppliers must contact the AUTOCAR Industrial Engineering department for assistance when required. Suitable solutions to packaging needs can be developed in consultation when required.
- Packaging will consider not only the requirement of protecting the material, but also standard packaging, palletizing, ergonomic and other factors.
- Approval can only be issued by the Industrial Engineer who will consolidate requirements and ensure that relevant AUTOCAR approvals are obtained. Packaging will also be part of the PPAP approval and must appear in any applicable process control documents.
- Material, which is delivered in unapproved packaging, will potentially be rejected, and the supplier may incur fees and reimbursements as described below.

Packaging role in prevention:

- Material must be protected throughout the components journey from the end of the supplier process and to the AUTOCAR assembly line without any of the following:
 - Damage due to shifting or rubbing.
 - Unusual deterioration or aging.
 - Failing to meet engineering requirements.
 - Damaged or lost labeling.
 - Deterioration of aesthetic properties.
 - Corrosion, within 12 months.
 - Deformation of material.
 - Entanglement of material.
 - Mixing of material.
 - Components coming loose or missing assemblies.
 - Condensation retention.
 - Moisture entrapment, absorption, or retention.

Material packing guidelines:

- The gross weight of forklift handled package may not exceed 5,000 lbs.
- The gross weight of a manually handled bin/box may not exceed 35 pounds.
 - Individual containers weighing over 35 lbs. are to be labeled as “HEAVY LIFT” on all visible sides.
- The ergonomics of accessing material is to be considered.
- Internal separators/protection minimized but must still protect the material is to be used.
- Each container is to be labeled as defined in the AIAG Compliance section of this document.
- On bulk returnable containers place label on the bottom frame.
- It is not permissible to over pack containers of material which might results in the following:
 - Binding of material.
 - Over loading containers.
 - Excessive weight of containers.
 - Damage to material when removing.
 - Detangling of material.
 - Rubbing or chafing of parts during shipment.
 - Degradation of aesthetic or corrosion protection properties.
- Material must be packaged to facilitate usage as it is received on the production line.
- Packaging changes must be pre-approved by AUTOCAR.
 - It is useful to have alternate packaging approved at the time of PPAP.
- Returnable or disposable packaging reimbursements are to be included in the component price.

Pallet boxes:

When pallet boxes are chosen, the following must be observed

- Ergonomics: Material in the boxes must be tall enough to remove without reaching more than 12” into the box.
- Material must be accessible without tilting the container.
- The box must be affixed to the pallet such that it will not slide, turn, or move if the shrink wrap is removed or banding is cut.
- Boxes must have the maximum stack quantity clearly marked on all sides.
- Lids must be durable enough such the edges will not open or come loose.
- Lids must be secured to prevent them from coming loose during shipping or handling.
- If containers are to be stacked, they must have edge reinforcement and shrink-wrap.
- Pallet boxes without lids will be considered non-conforming.
- A layer of cardboard must be present between the pallet and the material in the container sufficient to prevent damage during normal handling.

Proposed Component Packaging (PCP) Guide:

The purpose of this guide is to inform suppliers of the process of attaining packaging method approval. Packaging being a key element of defect prevention and line up-time is a critical item which is often overlooked for its importance. Packaging must provide the following attributes:

- Minimize:
 - Disposal
 - Separators
 - Weight
 - Handling
 - Inventory
- Maximize:
 - Safety of the personnel using them
 - Protection and containment of materials
 - Storage stability
 - Ergonomics
 - Value for cost
 - Material identification at a distance
 - Palletization efficiency

Proposed component packaging method form (PCP):

The Proposed Component Packaging (“PCP”) form is a structured specification sheet, which forms an integral part of the packaging management system at AUTOCAR. AUTOCAR suppliers are required to fill in a PCP form for all materials delivered to AUTOCAR.

The completion of this form is mandatory for all AUTOCAR material. The PCP must be completed and returned to AUTOCAR through purchasing.

The PCP requires AUTOCAR approval before any new packaging or delivery method is implemented. For this reason, it is important that all forms are returned to AUTOCAR as early as possible.

Material delivered in unapproved packaging will potentially be rejected if the new packaging fails to protect the material and / or the footprint of the packaging resulted in AUTOCAR not being able to store the material in its designated area.

Refer to the guidelines attached to complete the PCP form.

Section A PART DETAILS:

Part Number:	AUTOCAR assigned part number (attach as a list if there is more than 1 part using the same packaging)
Part Description:	AUTOCAR name of the part (attach as a list if there is more than 1 part using the same packaging)
See attached list:	List of part numbers requiring PCP to be filled out if more than one
Reason for PCP:	Circle appropriate reason or underline if completing electronically
Part in plant date:	Stock in Plant Date (if known)
Estimated annual usage (EAU) of part:	Total projected usage per annum
Is this an MRO item?	MRO items are bulk items, such as oil, fasteners, weather-strip, etc. Circle or underline "Yes" if this is a bulk item and "No" if not
AUTOCAR truck using locations	Enter the number of parts being sent to each location. If none enter "0"
Sequenced:	Circle or underline "Yes" if parts are to be sequenced or "No" if the parts are not sequenced

Section B SUPPLIER DETAILS:

AUTOCAR buyer name:	AUTOCAR Buyer's name
RFQ number:	Request for Quotation number
Supplier name:	Name of supplier
Supplier vendor code:	AUTOCAR vendor reference code
Supplier contact name:	Person at supplier to be contacted for packaging details
Supplier contact phone no:	Contact person's phone number
Supplier fax number	Contact person's fax number
Address:	Address from which the component will be shipped to AUTOCAR

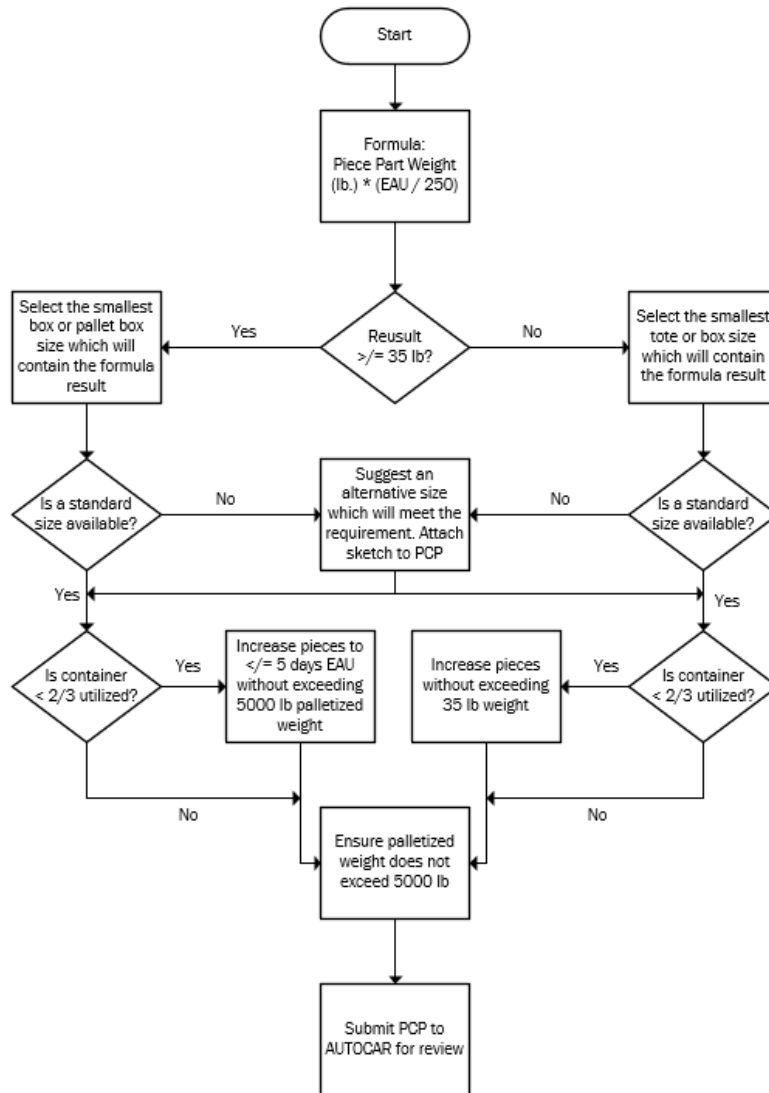
Section C CONTAINER DETAILS:

Container type:	Using the attached decision flow chart choose container type from Right hand side of PCP form
Quantity per container:	Use attached decision flow chart to determine the quantity per container
Internal protectors:	Will the package contain interior part protection such as layers, corner reinforcement or separators? If so, state the type
Part and packaging combined weight:	State the gross weight of the smallest unit load in the package i.e. the tote bin weight with components if palletized
Packaging piece price:	State cost of packaging in terms of the markup per part for the packaging
Transport cost:	Estimate the transportation cost if the supplier quotes the parts as delivered FOB AUTOCAR's facility
Supplier Signature:	Supplier representative affirms the prices contained within the form represent a true cost based on the description of the business

Section D APPROVAL by AUTOCAR:

Process Engineer (PE):	The process engineer will evaluate the packaging, rack or tote for ergonomics for the operators and fit at the use point
Materials:	Materials will approve the packaging, rack or tote for fit in the footprint in the warehouse, palletization
Purchasing / Strategic Sourcing Lead:	Purchasing will evaluate cost effectiveness, to ensure standard pack quantities fits the business and the alignment to agreements for returnable or disposable packaging

Process flow for selection and submission of packaging:



PCP form:

Proposed Component Packaging Form (PCP)						
Section A: Completed by Supplier				Packaging		
Part Number				Autocat Material Footprints		
Part Description				Standard Pallet Sizes Inches		
Reason for PCP				Width	Length	Height
New Part				36	36	5.5
Changed Packaging				36	48	5.5
Quantity Change				48	48	5.5
Price Change				48	96	5.5
If not new, date of previous PCP				Pallet Box Sizes Inches		
Part In Plant Date				Width	Length	Height
Total Est. Annual Usage (EAU)				36	36	36
Is this an MRO item?		Yes	No	48	48	48
Autocar Truck Using Locations		EAU Qty		36	36	48
Birmingham, AL				48	40	48
Hagerstown, IN				Standard Box Sizes Inches		
Sequenced		Yes	No	Width	Length	Height
				12	12	12
Section B: Completed by Supplier				6	12	6
Autocar Buyer Name				12	12	6
RFQ Number				6	6	6
Supplier Name				12	12	24
Supplier Vendor Code				Standard Tote Sizes Inches		
Supplier Contact Name				Width	Length	Height
Supplier Contact Phone Number				12	15	5.5
Supplier Fax Number				7	12	5
Supplier Street Address				15	24	7.5
Supplier City				15	32	7.5
Supplier State				For non standard or special containers attach a sketch here:		
Supplier Postal Code						
Section C: Completed by Supplier						
Container Type						
Quantity Per Container						
Returnable or Disposable?						
Internal Protectors						
Part + Package Combined Weight						
Packaging Piece Price						
Transportation Cost						
Supplier Signature						
Date						
Section D: Autocar Truck Approvals						
Process Engineer	Date:		Signature:			
Materials	Date:		Signature:			
Purchasing	Date:		Signature:			

Labeling:

Labeling:

Bar code labels are required and are a critical part of delivered product. Illegible labels cause serious disruption. Bar code print quality must be scannable and legible at 72 inches.

Suppliers must take care that no other labeling or markings cover the container, pallet, or master labels rendering them unable to be read or scanned.

There are special requirements for the following circumstances:

- Mixed Pallets
- Partial Pallets
- MRO Items

General labeling rules:

- When making labels the following are not allowed
 - Adding suffixes or prefixes to any of the following:
 - AUTOCAR part number
 - AUTOCAR purchase order
 - Placing packing labels inside of the boxes.
 - Placing PPAP, engineering or other sample identification on the inside of the boxes.
 - Those labels must be large, and clearly legible on the outside of the boxes.
- Packing slips must be accessible in an envelope or plastic sleeve attached to the side of each skid or box as applicable.
- Each box, tote, or small container heavier than 35 lb. must be marked with an easily readable "HEAVY LIFT" label.

General label specifications:

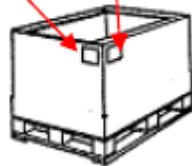
- Label size 4.0 inches (102mm) high by 6.0 inches (165mm) wide minimum.
- Minimum 2 labels per shipping pack on 2 different sides.
- Label will be white in color with black printing.
- Label attachment can be of any type such that adhesion to the package substrate is assured and application is wrinkle-free.
- Attachment method may not interfere with the reading of the bar code.
- Labels applied to returnable packaging must be easily removable and leave no residue after removal.
- Label must survive from 120°F to 0°F and up to 100% humidity without affecting the label readability due to:
 - Discoloration or blackening
 - Curling
 - Peeling
 - Wrinkling
 - Fading
 - Loss of adhesion
 - Mold or mildew
 - Bleeding or running of the ink

AIAG labeling compliance:

- Labels must adhere to the specifications as detailed and illustrated in “Trading Partner Labels Implementation Guideline” (AIAG Product Code B-10).
- Labels must adhere to the code 39 alphanumeric and symbol standards contained in AIAG Product Code B-10.
- For a copy or additional information contact the Automotive Industrial Action Group at 248-358-3003, 26200 Lasher Road, Suite 200, Southfield Michigan 48034-7100, or by web site: <http://www.aiag.org/>

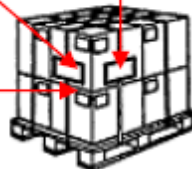
Placement of the labels:

Container Label



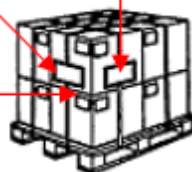
PALLET BOX –
Identical Container labels shall be located on two adjacent sides.

Master Label



IDENTICAL PARTS IN CARTONS ON PALLET
– Each carton shall be individually labeled as described above. Two identical Master labels shall be used on adjacent sides.

Mixed Load Label

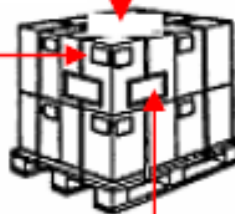
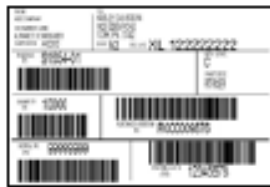


NON-IDENTICAL PARTS IN CARTONS ON PALLET – Each carton shall be individually labeled as described above. Two identical Mixed Load labels shall be used on adjacent sides.

Mixed Master Label



Container Label



NON-IDENTICAL PARTS IN CARTONS ON PALLET – Each carton shall be individually labeled as described above. Two identical Mixed Load labels shall be used on adjacent sides. All Mixed Master labels shall be placed in an envelope and attached to the top of the pallet.



ROPAK – Identical Container labels shall be located on each end. The end is defined as having the large fork truck entry points and is wider than the sides.



Bag – Place on Container label at the center of the face.



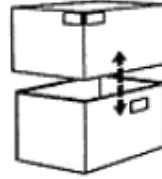
METAL BIN OR TUB –
Attach hang tag Container label to ear of tub or use a label holder.



ROLL – Hang one Container tag 2.0 inches (51mm) from the end of the material.



BUNDLE – Identical Container label tags shall be located at each end.



TELESCOPIC OR SETUP CONTAINER – Identical Container label shall be located on two adjacent sides of the out box. Some applications may also require identification of the inne box.



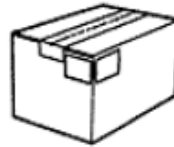
DRUMS, BARRELS, OR CYLINDRICAL CONTAINERS – Identical Container labels shall be located on the top and near the center of the side.



RACK – Attach Contain hang tag label to ear of rack



BASKET, WIRE MESH CONTAINER – Identical Container labels shall be located on two adjacent sides.



BOX OR CARTON – Identical Container labels shall be locate on two adjacent sides. The upper edges of the labels shall be as high as possible up to 20 inches (510mm) from the bottom of the carton.

Master label:

- Master labels are required whenever multiple containers of material of the same part number are shipped on a pallet and must contain:
 - Large font lettering readable at 6 ft “MASTER LABEL”
 - AUTOCAR designated part number
 - AUTOCAR description of the material
 - Quantity of material
 - Supplier batch, lot, or serial number
 - AUTOCAR designated supplier code
 - AUTOCAR purchase order number
 - MFG Date
 - Expiration date (If applicable)
 - Engineering change level
 - AUTOCAR Address
 - Supplier manufacturing location address



Shipping box / container / tote / part I.D. label:

- Required Data: (Information used for traceability and put- away of product)
 - AUTOCAR designated part number
 - AUTOCAR description of the material
 - Quantity of material
 - Supplier Batch, Lot, or Serial Number
 - AUTOCAR designated supplier code
 - AUTOCAR purchase order number
 - MFG date
 - Expiration date (If applicable)
 - Engineering change level
 - Supplier manufacturing location address



Mixed pallet master label:

- Mixed master labels are required whenever multiple containers of material of a different part numbers are shipped on the same pallet.
 - Large font lettering clearly readable at 6 ft “MIXED MASTER”.
 - AUTOCAR designated part number
 - Quantity of material
 - Supplier batch, lot, or serial number
 - AUTOCAR designated supplier code
 - AUTOCAR purchase order number
 - MFG Date
 - Expiration date (If applicable)
 - Engineering change level
 - AUTOCAR Address
 - Supplier manufacturing location address
- Along with the mixed master label placed in a plastic envelope on top of the skid, place a scannable label for each part number contained on the pallet showing the following:
 - Part Number
 - Number of boxes
 - Quantity of material total
 - Purchase order number
 - Supplier code

MRO labels:

- MRO Labels are required for all material shipped in bulk. One label on adjacent sides, and on the top, of the MRO container must contain the following
 - Large font lettering readable at 6 ft “MRO LABEL”.
 - AUTOCAR designated part number
 - AUTOCAR description of the material
 - Quantity of material
 - Unit of measure
 - Supplier batch, lot, or serial number
 - AUTOCAR designated supplier code
 - AUTOCAR purchase order number
 - MFG Date
 - Expiration date (If applicable)
 - AUTOCAR address
 - Supplier manufacturing location address

Material Traceability:

AIAG traceability compliance:

- Materials used in on-road applications are required to have key components traceable back to the source of the material. Suppliers are expected to maintain traceability compliance to “AIAG Traceability Guideline” (AIAG Product Code CQI-28).
- For a copy or additional information contact the Automotive Industrial Action Group at 248-358-3003, 26200 Lasher Road, Suite 200, Southfield Michigan 48034-7100, or their web site: <http://www.aiag.org/>

Lot / batch traceability:

The purpose of maintain lot traceability is:

- To minimize the impact of a campaign should one become necessary.
- To assist in containing suspect product in the event a nonconformity is detected.
- To assist the supplier in providing advance notice to AUTOCAR of suspect material if detected.
- To assist break pointing of changes which are not otherwise generating a new part number.

All Suppliers should have an effective lot / batch definition and a clearly defined traceability procedure. The Supplier must consistently maintain the effectiveness of this procedure and be able to trace back throughout the entire supply chain including:

- Finished parts
- Subcomponents
- Raw material
- Sub-supplied processes
- Supplier processes
- Rework operations
- History of the processes applied to the product

Material markings, labeling or stampings should assist product investigation of the above items throughout the material's usable life.

Appendix A: Fees and reimbursements:

Fees and reimbursements associated with non-conformance to this standard:

To ensure uniform enforcement of the standards contained within this document, AUTOCAR has developed a schedule of standard fees and reimbursements associated with the most common non-compliances. Additional assessments, such as labor, associated with non-conforming product process is found in the Supplier Quality Assurance Manual (SQAM) Appendix A.

Fees and reimbursements are applied as a debit memo to the AUTOCAR accounts payable for the supplier. They will be assessed on a per incident basis. If a second shipment records a repeat, then the incidents will be increased by the number of labels or containers with the issue. The PPM for resulting damaged product will further be calculated in the Supplier Corrective Action Report (SCAR) process. Refer to the SQAM Appendix A for explanation.

Logistics Parts Per Million (PPM) effect will be assessed based on the number of incidents per pallet, pallet box, or rack and number of shipments received. The PPM formula for logistics issues will be as follows:

- X = # of shipments of a part number delivered in the prior 12 months
- Y= # of incidents
- $(Y/X) * 1,000,000 = \text{Logistics PPM}$

Issue	Standard Assessments	Incident Impact
Label data omissions	\$ 50.00	Assessed as 1 per container
Missing container label	\$ 50.00	Assessed as 1 per container
Incorrectly labeled product	\$ 50.00	Assessed as 1 per container
Incorrect PO or Supplier Code	\$ 50.00	Assessed as 1 per shipment
Packing slip does not match shipment	\$ 50.00	Assessed as 1 per shipment
Packaging substitution affecting footprint or ergonomics as described in this document	\$ 50.00	Assessed as 1 per container
Packaging failure to protect parts	\$ 50.00	Assessed as 1 per container
Heavy lift labels not applied	\$ 50.00	Assessed as 1 per container
Mixed pallet identification missing	\$ 50.00	Assessed as 1 per pallet
Parts damaged due to packaging failure	See SQAM Appendix A	Processed per SCAR reject Qty
Parts requiring repackaging	See SQAM Appendix A	Processed per SCAR reject Qty
AUTOCAR arranged carrier damage	Freight Claim	Cost charged back to carrier
Supplier arranged carrier damage	See SQAM Appendix A	Processed per SCAR