



ELEKTRONIK



MD GROUP LOGISTICS DIRECTIVES FOR SUPPLIERS

v1. 09/2016

Introduction

MD ELEKTRONIK (including the companies in the **MD** Group) develops and produces high-quality data communication solutions for the international automotive industry.

We make high demands both of ourselves and of our suppliers.

The Logistics Directive for Suppliers is a written definition of the generally applicable logistics requirements, which **MD ELEKTRONIK** (including the companies in the **MD** Group), hereinafter referred to as **MD**, places on its suppliers. These directives are intended to inform the supplier of the key logistical processes and to ensure a fault-free material flow between the supplier and **MD**.

It applies to all suppliers.

Our aims:

- Controlled communication to ensure a continuous improvement process
- Minimization of the logistics costs along the entire supply chain
- Simplification of goods / container handling
- Appropriate component protection to minimize damage

This Logistics Directive applies both to all inquiries and to orders.

The supplier shall ensure that the supplied documents have been presented to the appropriate departments for evaluation and consideration and have been complied with.

By submitting the order confirmation, the supplier shall be obliged to comply with our logistics requirements.

Waldkraiburg, September 2016,
For all companies in the **MD** Group:



p.p. **Bernhard Skarbina**
Director Logistics



ppa. **Christian Nebelung**
Vice President Supply Chain Management

Table of contents

1	Purpose and area of application	4
2	Contact / contact address	4
3	Packaging	5
3.1	General packaging directives	5
3.2	Packaging requirements	5
3.3	Packaging information	5
3.4	Special packaging directives	6
3.4.1	Optimization of filling	6
3.5	Packaging labeling	6
4	Container / empty packaging management	7
4.1	Empty packaging request	7
4.2	Empty packaging accounting	7
5	Accompanying documents	7
5.1	Goods tag	7
5.2	Delivery note	8
5.3	Haulage order	8
6	Transport and delivery	9
6.1	Notification	9
6.2	Routing Order / Transport	9
6.2.1	Parcel deliveries	9
6.2.2	Truck dispatch	9
6.2.3	Express shipping / Special delivery	9
6.3	Provision / loading	9
6.4	Transport of hazardous goods	10
6.5	Return delivery	10
6.6	Customs processing	10
6.7	Proof of origin	10
6.8	Transport damage	10
6.9	Processing problems during transport	11
7.0	Information obligation	11
8.0	Supplier evaluation	11
9.0	Deviations from the agreed directives	11
10.0	Appendices	12
10.1	Packaging labeling	12
10.2	Goods tag	13
10.3	Delivery note	14
10.4	Haulage order	15
10.5	Routing Order	16

1. Purpose & area of application

With this logistics directive, the MD suppliers are informed of the logistical requirements to ensure a flawless process between the supplier and the customer, MD.
This directive shall be binding for all deliveries and supplements the existing contractual agreements.

This directive shall apply to deliveries to the following locations:

Germany:

MD ELEKTRONIK GmbH
Neutraublinger Strasse 4
84478 Waldkraiburg

Czech Republic:

MD ELEKTRONIK spol. s r.o.
Logistikcenter Pilsen
Obchodni 1174/5
CZ - 301 00 Plzen- Skvrňany

USA:

MD ELECTRONICS Corporation
33 Precision Way
Jamestown, New York 14701

China:

MD (Beijing) ELECTRONICS Co., Ltd.
No. 6 Tian Wei 3 Street, Tian Zhu AIZ A
Shun Yi District, 101312 Beijing

Mexico:

MD ELEKTRONIK de México S. de R.L. de C.V.
Virgen de San Juan 117
Parque Industrial Colinas de León
C.P. 37668
León, Guanajuato
Mexico

2. Contact / contact address

Central contact for all matters:

MD ELEKTRONIK GmbH
Neutraublinger Strasse 4
84478 Waldkraiburg
Germany

Telephone: +49 8638 604 - 0
E-mail: info@md-elektronik.de
Internet: www.md-elektronik.de

3. Packaging

Suitable packaging protects the employees against accidents at work and the material against damage and incorrect handling along the entire length of the logistics chain.

The complete process chain is optimized at the same time: Starting with the packaging operating at the supplier's premises, through shipping, transport, goods receipt, the incoming goods inspection, warehousing to processing in manufacturing.

The supplier shall be responsible for compliance with the general and special packaging agreement.

3.1 General packaging directives

Packaging should always be planned and standardized according to economical and ecological aspects. Standardized packaging leads to standardized processes with learning effects and with fewer possibilities for error. This results in wide-reaching quality assurance, effective material handling, increased workplace safety and an improved environmental balance. The packaging directives should be regarded as minimum requirements. Damage traceable back to insufficient packaging during transport shall be charged to the supplier.

Should, due to the experience of the supplier, additional measures to protect the materials or a different type of packaging design be required, then this shall be agreed in writing with MD.

3.2 Packaging requirements

- The packaging shall be structured in such a way that the materials and the packaging can be transported, handled and stored without causing damage.
- When selecting the packaging, take account of the climatic influences during transport.
- Load carriers must be sent to MD free from damage!
- With wooden packaging materials, the regulations of the recipient country must be taken into account, according to the IPPC standards ISPM number 15.
- Protection against soiling.

3.3 Packaging information

- Materials must never protrude beyond the load carrier.
- The weight limits of load carriers should be complied with (e.g.: Europallets max. 1000 kg)
- The maximum height of the total load unit is 1000 mm, provided that nothing else is prescribed or approved in the packaging agreement.
- Materials must not move within the packaging nor on the load carrier. Packaging and individual materials must be connected to the load carrier in every direction to avoid slippage.
- The maximum size of the load carrier must be limited to the Europallet dimensions (1200x800 mm), provided that nothing else is prescribed or approved in the packaging agreement.
- Note and, if necessary, label the center of gravity of the load carrier, to avoid tipping movements.
- Damaged Europallets will not be exchanged; a reference will be made on the delivery note.

3.4 Special packaging directives

Specific packaging must be agreed with MD using the packaging datasheet.

The MD Purchasing division shall request the packaging datasheet from the supplier. The supplier can contact MD for the datasheet template for completeness.

If required, a packaging test should be carried out, subject to agreement with the recipient factory.

Changes to, or deviations from, the packaging shall be agreed in writing with MD in advance.

If special packaging is used, the following shall be observed:

- A suitable packaging supplier must be selected, appropriate offers collected and the prototypes presented to MD.
- The orders for special packaging to packaging manufacturers shall be triggered by the supplier.

3.4.1 Optimization of filling

The supplier shall always deliver load carriers with an optimum filling level.

Should the filling level change, MD must be informed of this immediately.

The supplier shall suggest optimizations to the container filling level and execute them in cooperation with MD logistics planning. Only in this way is it possible to guarantee that the packaging data is recorded correctly and a new packaging agreement can be transferred.

3.5 Packaging labeling

Each packaging unit must be clearly labeled.

A VDA 4902 goods tag must be attached to the load carrier so that it is clearly legible and must not exceed the external dimensions of the load carrier. In addition, the label must not be covered by opaque packaging material.

All the load carriers on the pallet with Euro dimensions shall be arranged in such a way that all the labels can be read clearly.

Depending on the type of materials, it may be necessary to classify and label the materials.

This labeling must also be clearly visible.

Classification shall take place using symbols for consistency and handling information.

- The parts shall be clearly labeled according to the type of substance, material and/or special feature using labeling symbols on the outside of each load carrier (e.g.: cardboard box).
- The labeling shall be weatherproof.
- Hazardous substance information (see Point 6.4)

You can find an overview of general labeling symbols in **Appendix 10.1** of this logistics directive.

4. Container / empty packaging management

4.1 Empty packaging request

The supplier shall ensure that the transport containers required for the scope of their deliveries are available in good time.

Should MD be the owner of these transport containers, the supplier shall contact MD in good time and order the required quantity of multi-use load carriers.

This procedure shall only be valid if MD is the owner of the special packaging and makes this available to the supplier!

The load carriers shall only be for physical transport from the supplier to MD and shall not be used for other purposes.

4.2 Empty packaging accounting

For all suppliers making deliveries to MD in multi-use packaging (MD's property or property of the supplier), an appropriate empty packaging account shall be set up and managed for each multi-use load carrier.

The supplier shall carry out a monthly reconciliation of the empty packaging accounts with MD.

In the case of multi-use load carriers (MD's property), the supplier shall inform the appropriate MD plant of their stock without prior request and within 5 working days of the end of the month.

5. Accompanying documents

The supplier shall be responsible for the correct compilation of the delivery papers according to the appropriate standards. They shall ensure that all the required data and information for transport logistics is documented completely and without errors on the shipping documents.

The shipping company shall be given a haulage order and, if necessary, the export documents and the delivery note shall be attached to the container.

5.1 Goods tag

The goods tag is used for clear identification of the goods and loading equipment, both in internal material flow and on the transport route between the supplier - shipping company - goods' recipient. For this reason, the supplier shall ensure that all loading equipment possesses a current, carefully completed and barcoded goods tag in accordance with **VDA 4902** Version 4 (or subsequent versions).

In particular, there must be a guarantee that the data on the goods tag agree with the content in the loading equipment. To achieve clear identification, the supplier shall be obliged to remove old goods tags and labeling completely from the load carriers.

Select the structure of the goods tag so that it will remain legible, both by machine and by sight, at the delivery location, despite environmental influences and transport impacts.

If goods tags are missing, illegible or incomplete, MD shall reserve the right to invoice the supplier for the additional costs incurred by the fault.

Detailed information on the topic of goods tags can be found in the standard: VDA 4902.

The following information must be barcoded on the VDA goods tag:

- MD material number
- Supplier's material number
- Quantity
- Units of quantity
- Batch
- MD order number
- Delivery note number

You can find a sample goods tag in **Appendix 10.2** of this logistics directive.

5.2 Delivery note

To accept materials in goods receipt, MD shall require a delivery note which clearly describes the delivery. The delivery note shall always be compiled according to DIN 4991.

The delivery note shall be clearly attached to the pallet using a document pouch. A separate delivery note shall be completed for each order.

The delivery note shall contain the following data:

- Sender
- Delivery address
- MD order number (Barcode EAN 128)
- Delivery note number (Barcode EAN 128)
- MD material number
- Supplier material number
- Material designation
- Amount / quantity of the packaging unit
- Type, quantity and designation of the transport packaging
- Net **and** gross weight of each delivery item

You can find a sample delivery note in **Appendix 10.3** of this logistics directive.

5.3 Haulage order

The haulage order shall be used as a shipping note and shall have an accompanying function from the loader through to the recipient.

A standardized form according to VDA 4922 shall be used for this.

This "haulage order" shall be: compiled by the supplier / sender, shall be supplemented by the haulage company and handed to the goods' recipient (MD) at goods receipt (delivery verification).

All the delivery notes belonging to the delivery shall be listed on the haulage order.

You can find a sample haulage order in **Appendix 10.4** of this logistics directive.

6. Transport & delivery

The regulations below shall apply for the shipping of goods for MD, as supplementary contractual agreements to the purchasing agreements or other contracts with the supplier for parts' delivery.

The additional costs resulting from non-compliance with the following transport directives shall be borne by the supplier.

6.1 Notification

Starting with the individual order / delivery schedule, the supplier shall always ensure that the quantities of parts ordered by MD shall be scheduled with the appropriate time and quantities in their production process. They shall ensure that the required quantities are provided on time and that the transport service provider is informed in good time. The agreed delivery conditions shall be complied with.

When using the delivery conditions "EXW and FCA", the haulage company specified by MD shall be contracted with the work. Should, in contravention of the agreement, the supplier contract their own haulage company, any additional costs incurred by MD shall be borne by the supplier.

The supplier must determine the gross weight and the loading equipment weight of the delivery correctly. Any additional costs resulting from incorrect weight data shall be borne by the supplier.

6.2 Routing Order / Transport

Routing Orders shall be issued by MD and shall name the haulage companies and their contacts. Should, in contravention of the agreement, the supplier contract their own haulage company, any additional costs incurred by MD shall be borne by the supplier.

You can find a sample routing order in **Appendix 10.5** of this logistics directive.

6.2.1 Parcel deliveries

For small deliveries, up to 20.4 kg, orders shall be placed with the parcel services specified and approved by MD.

6.2.2 Truck haulage

All deliveries of 20.5 kg or heavier shall be given to the haulage companies prescribed by MD.

6.2.3 Express shipping / Special delivery

Short-term, extraordinary deliveries must be agreed with MD in advance.

The costs of express and special deliveries for which the supplier is responsible shall be borne by the supplier. Any express and special deliveries not approved by MD shall always be paid for by the supplier.

6.3 Provision / loading

Loading and clearance shall always occur immediately after vehicle provision.

Should the supplier cause inappropriately long clearance times, then resulting additional costs shall be invoiced to the party responsible directly before haulage. This regulation shall exclude the culpability of third parties (e.g. customs clearance).

If normal collection by the haulage company is not possible, being the fault of the supplier (e.g. good not ready for collection at notified time, inappropriate waiting times, etc.), then the supplier shall guarantee timely delivery of the goods themselves and at their own cost.

6.4 Transport of hazardous goods

The supplier shall be obliged to hand over a shipment which complies with the hazardous good regulations, including packaging, for transport. The supplier shall be liable for any damage resulting from non-compliance with the legal regulations.

Safety datasheets **must made available** to the responsible contact at MD procurement **before** the first delivery.

Hazardous substances shall be packed standing vertically in an approved container. Hazardous substances which are sensitive to temperature must be protected from frost and heat damage using suitable packaging.

During transport, hazardous substances which are sensitive to temperature must be protected against the influence of weather. Any requirements for transport must be indicated to the haulage company in advance.

Labeling shall take place according to the hazardous substances legislation, using the GHS (Globally Harmonized System). In addition to the hazardous substance symbols, all materials and packaging units must be labeled using the material number and hazardous substance number.

6.5 Return deliveries

Return deliveries for which the supplier is culpable shall be organized by the supplier themselves. The costs and work incurred at MD can be charged to the supplier.

6.6 Customs processing

The supplier shall be responsible for the correct compilation of the customs papers according to the currently valid legislation, as well as for the proper customs planning (tariffs) for the import of goods into the recipient country.

Should MD incur additional costs or disadvantages as a result of improperly completed or missing customs papers, then MD shall reserve the right to invoice the supplier for these additional costs.

6.7 Proof of origin

The supplier shall be obliged to supply MD with the required declarations (= supplier declaration, certificate of origin) in good time concerning the customs' origin of the goods they are supplying. If required, the supplier shall provide proof of their data on the goods' origin using an information sheet confirmed by a customs office.

The supplier shall be liable for any disadvantages incurred by MD as a result of incorrect or late handover of the proof of origin.

6.8 Transport damage

The supplier shall ensure that the goods are handed over to the haulage company according to the agreed Incoterms and that it reaches the delivery location in the same state. Load securing required by international directives shall also be ensured.

If the goods are damaged, then acceptance can be refused and the goods can be returned to the supplier at the expense of the supplier.

6.9 Processing problems during transport

Problems which occur in the prescribed procedure, including strikes, force majeure and changes caused by sub-suppliers shall be reported by the supplier to the haulage company and MD disposition immediately with a detailed specification of the reason and type of issue. Problems shall be eliminated as quickly as possible.

7. Information obligation

Changes to the delivery location, e.g. as a result of relocation of production to another production plant of the supplier or creation of a delivery warehouse deviating from the existing location shall be reported to MD logistics planning immediately.

8. Supplier evaluation

The MD Group shall evaluate the capabilities of suppliers.

The supplier reliability and quality of the supplier shall be continuously measured and evaluated. With regard to the supplier evaluation, it must be the aim of the supplier to achieve a delivery reliability of 100% and a quality evaluation of 100% and 0 ppm.

The supplier evaluation shall be performed once a year and reported to the supplier.

9. Deviations from the agreed directives

In general, the agreements made with the supplier shall apply (e.g.: purchasing conditions). Additional oral agreements shall require written confirmation.

Any non-conformant delivery shall be submitted to MD in good time for approval. Unapproved deviations shall be indicated with a logistical fault complaint. Fault complaints shall be taken into account in the supplier evaluation.

















If there are major deviations, acceptance of the goods can be refused (e.g.: Infringement of the safety regulations).

The supplier shall carry the costs for additional work and returns.

MD shall be authorized to specify fixed costs for and deviations to the logistics processes caused by the supplier (e.g. early delivery, over-delivery and other deviations to the delivery and packaging regulations).

10. Appendices

10.1 Packaging labeling

Designation	Symbol according to DIN 55 402 & ISO-Norm R780	Designation	Symbol according to DIN 55 402 & ISO-Norm R780
Zerbrechliches Packgut Fragile / Handle with care		Schwerpunkt Centre of gravity	
Keine Handhaken verwenden Use no hooks		Stechkarre hier nicht ansetzen No hand truck here	
Oben This way up		Zulässige Stapellast Stacking limitation	
Vor Hitze (Sonneneinstrahlung) schützen Keep away from heat		Klammer in Pfeilrichtung Clamp here	
Vor Hitze und radioaktiven Strahlen schützen Protect from heat and radioactive sources		Zulässiger Temperaturbereich Temperature limitations	
Anschlagen hier Sling here		Gabelstapler hier nicht ansetzen Do not use fork lift truck here	
Vor Nässe schützen Keep dry		Sperrschicht nicht beschädigen Do not destroy barrier	
Elektrostatisch Gefährdetes Baelement Electrostatic sensitive device		Aufreißen hier Tear off here	

General labeling symbols

10.2 Goods tag (VDA 4902)

(1) Receiver		(2) Dock/Gate/Storage location/Usage		
(3) Advice note no. (N) 		(4) Supplier address		
		(5) Net weight (KG)	(6) Gross weight (KG)	(7) No. of boxes
(8) Part no. (P) 				
(9) Quantity (Q) 		(10) Description		
		(11) Supplier ref.no. (305) 		
(12) Supplier ID (V) 		(13) Date	(14) Engineering change status const.	
(15) Package no. (S) 		(16) Batch no. (H) 		
Goods tag VDA 4902 version 4				

(Sample)



Sender

Company

XXX

Customer

XXX

Delivery note

Document number	
Document date	XXXXX
Customer number	XXXXX
Ship-To-Party number	XXXXX
Supplier number	
Contact person	XXXXX
Phone number	XXXXX
E-mail	XXXXX
Page	1 of 1

Customer's order number	XXXXX
Customer's PO number	
Delivery terms	XXXXX
Gross weight	XXXXX
Net weight	XXXXX
Unloading location	XXXXX

Item	Material / Description	Batch	Quantity	QU
10	XXXXX XXXXX	XXXXX	XXXXX	KG

(Sample)

10.4

Haulage order

SENDER/SUPPLIER	<p style="text-align: center; font-weight: bold; font-size: 1.2em;">SHIPMENT NO.</p> <p>On collection please quote this no.</p> <hr/> <p style="text-align: center;">S H I P P I N G O R D E R</p> <p>DATE CARRIER CARRIER NO.</p>															
SHIP-TO-PARTY CUST.NO.																
DELIVERY/UNLOADING LOCATION: RECEIVING LOCATION:																
<table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">QTY.OF PACK.</th> <th style="text-align: left; border-bottom: 1px solid black;">PACK. DESCRIPT.</th> <th style="text-align: center; border-bottom: 1px solid black;">S F</th> <th style="text-align: center; border-bottom: 1px solid black;">NET WGT.KG</th> <th style="text-align: center; border-bottom: 1px solid black;">GROSS WGT.KG</th> </tr> </thead> <tbody> <tr> <td style="border-top: 1px solid black;">1</td> <td style="border-top: 1px solid black;"></td> <td style="text-align: center; border-top: 1px solid black;">0</td> <td style="border-top: 1px solid black;"></td> <td style="border-top: 1px solid black;"></td> </tr> <tr> <td style="border-top: 1px solid black;">TOTAL: 1</td> <td style="border-top: 1px solid black;"></td> <td style="text-align: center; border-top: 1px solid black;">TOTAL:</td> <td style="border-top: 1px solid black;"></td> <td style="border-top: 1px solid black;"></td> </tr> </tbody> </table>	QTY.OF PACK.	PACK. DESCRIPT.	S F	NET WGT.KG	GROSS WGT.KG	1		0			TOTAL: 1		TOTAL:			
QTY.OF PACK.	PACK. DESCRIPT.	S F	NET WGT.KG	GROSS WGT.KG												
1		0														
TOTAL: 1		TOTAL:														
<p>HAZARDOUS GOODS - CLASSIFIC. HAZARDOUS GOODS - DESCRIPT. DELIVERY TERM: EXW:Ex Works</p>	<p style="text-align: center;">DRIVER'S CONFIRMATION OF RECEIPT: THE AFOREMENTIONED SHIPMENT HAS BEEN RECEIVED IN COMPLETE AND PROPER CONDITION.</p>															
ATTACHMENTS																

(Sample)

10.5 Routing Order



MD ELEKTRONIK GmbH
Postfach 13 53 - 84466 Waldkraiburg

t.: +49 8638 / 604 - 0
f.: +49 8638 / 604 - 169

e.: info@md-elektronik.de
w.: www.md-elektronik.de

To all suppliers

18. February 2016

Carrier Requirements Incoterms EXW, FCA, FAS, FOB, CFR, CIF

Dear Sir or Madam,

By referring to our letter of changing the delivery address, we hereby name you our current Freight-forwarders/ Parcel services and the corresponding contact persons.

For **shipments heavier than 20 kg** please use the following **freight forwarders**

Place of loading: Spain, Portugal, Italy, Austria	Place of loading: other EU-countries

Please find enclosed our routing orders and the responsible contact persons for the mentioned Freight forwarders. Please register the pick-up with them directly.

For registration, please mention reference No. such as Delivery Note No. or MD Purchase order No. etc

For shipments **up to 20 kg** please use our Parcel service's as follows

Place of loading Outside Germany	Place of loading Within Germany

Please note that we will not incur shipping costs of carriers and other modes of shipment, who are not approved by **MD**.

Please feel free to contact us if you have any questions.

(Sample)



Published by:

MD ELEKTRONIK GmbH

Neutraublinger Straße 4
84478 Waldkraiburg

Germany

www.md-elektronik.de