## Warranty Manual
### Automotive Technology

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1. Principles for processing of warranty claims

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1.1 Introduction

This warranty manual describes the processing of warranty and product liability claims for Bosch products from the Automotive Technology business sector (UBK), in particular the Automotive Technology Aftermarket division and the joint venture VB Autobatterie GmbH (VB).

This warranty manual is solely intended for Bosch regional companies (RGs), Bosch international offices (AVs) and their service centres (BS) that are entitled to perform warranty repairs on Bosch products.

This warranty manual or sections thereof may not be passed on to third parties and its content is confidential.

Fundamental questions from RGs/AVs relating to warranty processing should be submitted by telephone or in writing to:

Robert Bosch GmbH
AA/QMM2
Postfach 41 09 60
76229 Karlsruhe
Tel.: 0049 721/942-2430
Mail: Georg.Keller@de.bosch.com

The contact for the service centres is the relevant national office (RO/AV).
1.2 Warranty claim

1.2.1 Definition of warranty claim

A warranty claim shall be deemed given if there is a complaint about a product or spare part within the warranty period assured by Bosch and a material or manufacturing defect has occurred.

Warranty claims shall not apply if the defects can be attributed to infringement of the operating, maintenance or installation instructions, inappropriate or improper use, incorrect handling, natural wear and tear or unauthorised interventions on the part by third parties. We refer to the valid AA terms of delivery for the Automotive Aftermarket division (AA), see Chapter 8.

If a product repaired by a BS fails due to a repair fault, this is a warranty claim for which the BG/BS is responsible.

We will not provide a warranty, even within the warranty period, for material or manufacturing defects occurring on Bosch products modified by third parties (e.g. conversion from petrol to liquid gas engine, tuning for sports use). Referring to 7.8 of our AA terms of delivery, the warranty obligation shall lapse if the item delivered is modified by a third party or by the installation of parts originating from third parties, unless the defect does not have any causal relationship with the modification. It shall also lapse as a result of non-compliance with installation and handling instructions.
1.2.2 No warranty claim

1. "Warranty claims in the form of favours"
   No warranty claims shall apply in the form of favours – this also applies to regular customers. If rules of goodwill are applied in specific cases, a goodwill application should be submitted.

2. BS Repair warranty
   If a product repaired by a BS fails due to a repair or installation fault rather than due to a Bosch original part used in the repair, this is a warranty claim for which BG/BS is responsible and may not under any circumstances be reported to Bosch. In the event of damage covered by a warranty in the responsibility of another BS (repair or own repair), Bosch recommends that all BS charge Bosch for such damages so that the service is rendered free of charge for the customer. However, if a BS employee bills the warranty costs for a given reason, the party responsible for the defect should acknowledge such an invoice and immediately reimburse the customer without waiting for the arrival of the replaced products/parts. In any case, disputes between BS partners should be avoided in the interest of the Bosch customer service organisation and, in particular, in the customer’s interest.

3. Repeat work
   The cost of repeat work that is, for example, required due to incorrect fault diagnosis or inadequate repairs, cannot be settled with Bosch. Moreover, these costs must be borne by the affected company.

4. Natural wear and tear and external influences
   Damage caused by natural wear and tear or external influences (e.g. rusting due to incidence of water, improper handling) or exceeded shelf life or interference, do not justify a warranty claim even if they occur during the warranty period.

5. Third party repairs
   If repairs are carried out by a third party work shop that is not part of the Bosch service organisation or is not authorised by Bosch during the warranty period, any resulting costs may not be reimbursed. Any warranty claims have to be rejected in such cases.
   Exception:
   In the case of Bosch products or spare parts that fail due to material or manufacturing defects and are repaired/replaced via an unauthorised work shop as part of emergency repairs, we will provide free of charge natural replacement out of goodwill without any legal obligations. (For example, after the close of business, during holidays, weekends, public holidays)
   There will be no reimbursement of repair and removal / installation costs. Products sold / installed by independent work shops and vehicle centres are subject to the warranty processing procedure under Chapters 3.1.3 and 3.2.
1.2.3 Warranty responsibility

A warranty claim should normally be declared against the seller of the goods. If the seller is not at the same time authorised to make decisions on warranty claims, the warranty application must be presented to the responsible RG/AV or the nearest authorized analysis office.

If the sellers' or users' warranty claims can be attributed to a material or manufacturing defect, BS shall perform the warranty work regardless of who sold the affected contracted products. They are the vicarious agents of the Robert Bosch GmbH as warranty provider, which reserves the right to make the final decision. Work should be based on the applicable AA terms of delivery and the details stated in this warranty manual.

The warranty scope does not include product liability damage (see section 1.3).

Bosch expects that the trust transferred to the BS by way of the "warranty scope" will be fully justified and that the companies should therefore constantly monitor their handling of warranty processing. With this, the neglect of their supervisory obligation is prevented.
1.2.4 Warranty period

The warranty is provided in accordance with our valid terms of delivery during the warranty period. The warranty period for our products is 12 months from installation of the item or from delivery of the item to the end customer, in accordance with subsection 7.1 of our AA delivery terms. The statutory warranty periods specified in certain countries are also applicable.

The beginning of the warranty period according to the AA terms of delivery is the date on which the use of the products/parts commences (i.e. for vehicle and engine equipment the registration date of the vehicle) or the installation, sale or shipping of the goods, respectively.

(Date of installation or purchase invoice)

Taking the vehicle out of service temporarily does not extend the warranty period.

The warranty period does not recommence following repair or replacement delivery/follow-up service. (Subsection 7.4 AA terms of delivery)

Extended Bosch warranty periods for certain vehicle manufacturers are published in Chapter 3.3.

The statutory warranty periods specified in certain countries are also applicable.
## 1.2.5 Rectification of damage under warranty

As a basic principle, damage under warranty has to be resolved in the most economically efficient way either by repair or replacement.

Defective products should be sent or delivered to the nearest Bosch service centre. Bosch products and parts should be used exclusively for warranty work on contracted products.

Repairs under warranty are normally partial repairs. Therefore, please make sure that only the actual necessary work is carried out (only the damaged/faulty part will be replaced).

If repair work cannot be performed within a reasonable time due to a lack of spare parts, the warranty can be provided by using a complete product. If possible, a Bosch replacement BX product should be used for this purpose. However, for EP cases the RG/AV must obtain prior approval from AA/QMM2.

**Bosch reserves the right to monitor the decisions of the service centres, to reject warranty applications even once a credit note has been issued or to charge back amounts already reimbursed.**

"Subject to acknowledgement by Robert Bosch GmbH" should therefore appear on every warranty document (work card, invoice, delivery note) either as a stamp or electronically printed and should be signed by the customer.

If replacement of a complete Bosch product by a third-party workshop not authorised for warranty work is unavoidable in exceptional cases (e.g. weekend, no close BS abroad), Bosch reserves the right to accept the warranty claim following the inspection of the defective product.

### 1.2.6 Submission period

It is the BS’s own interest that warranty claims are sent or delivered to the RG/AV immediately, but no longer than 4 weeks after handling the customer’s claim.

The RG/AV will forward these warranty claims immediately, but no longer than 30 days **after the date of the failure** via BWS online. Applications for reimbursement of costs for processed warranty claims received by AA after this period of time need statement regarding the delay reasons.
1.2.7 Warranty settlement

1.2.7.1 Remuneration in individual cases

RG/AV shall be entitled to remuneration for damage covered by warranty that is rectified in accordance with Chapter 1.2.5 and is acknowledged by Bosch:

- Products/parts
  the replacement value (inc. additional expenses in non-EU countries)

- Working time (inspection, removal and installation, repair)
  the agreed hourly rate

- Removal and installation time for third-party work shops on request and subject to proof: hourly rate placed to account, at most however the hourly rate of BS handling the claim (see Chapter 3.2.2).

Note:
- Additional costs of the warranty repairs, e.g. repeated travel due to inadequate advance clarification, cost of repeat work (e.g. due to incorrect fault diagnosis or incorrect performance of repairs) cannot be charged to us. Removals and installations under difficult conditions (e.g. removal and fitting of front-loaders on tractors, removal and fitting of exhaust systems or engine cowlings) that are likely to cause excessive costs must be coordinated with AA/QMM2 in advance. If necessary, instead of removing and fitting the product, the customer should be reimbursed with part or all of the purchase price.

- Likewise test bench fees, calibrating oil and other consumables, as well as the costs of cleaning defective products cannot be charged separately. These are overhead costs and are thus a component of the hourly rate.
1.2.7.2 Other remuneration

The relationship between Bosch and its direct customers (RG/AV) is subject to the AA terms of delivery. The relationship between the RG/AV and their customers in every single country is subject to either separate terms of delivery or the statutory provisions.

To limit undue hardship Bosch declares its willingness to accept the following indemnifications:

1. If the removal and installation and/or repair needs to be carried out at the end customer's location because the vehicle is not ready to drive or the product cannot be removed or cannot be brought to the Bosch service centre due to the design (e.g. motorboat, large power generator above 10 kVA), Bosch will pay the travel costs and for the time taken to reach the nearest Bosch service centre.

2. If a vehicle cannot be used due to a defect, the nearest BS will decide whether the required work needs to be carried out on site or in their work shop. In the latter case, Bosch will pay an appropriate proportion of the towing costs.

Towing costs by commercial car users, costs for car rental can be accepted only as an exception based on previous, written coordination with RG and AA/QMM2 as well as written proof (receipts, invoices). Adequate justification is also required.

If the products/parts required to rectify damage under warranty are not available in the country, Bosch will pay the shipping costs for immediate procurement.

A factual explanation of each item is required for verification of the amounts used.

Please refer to Chapter 2.1 for reporting in the warranty claim.

3. Undefined costs (loss of profit/margins), missed businesses, marketing costs, extended vacations, downtime of vehicle as well as accommodation and fuel costs cannot be reimbursed.

If a customer settles warranty claims in relation to BS and not to Bosch, due to defective repair work on a Bosch product for example, the above mentioned provisions will not apply. In this case, the customer only has a claim against the party that carried out the work subject to complaint.
1.3 Product liability

Product liability within the meaning of § 1, Paragraph, 1 of the German Product Liability Act is considered to be the liability of the manufacturer (or virtual manufacturer) and the importer that imports the product from a third country into the European Economic Area, with subsidiary liability for the dealer, for damage that their product causes to persons or property as a result of a lack of safety. However, damage to property only applies if property other than the defective product itself is damaged and this property is predominantly in private use.

The claimant must pay an excess of €500 for each incidence of damage to property. This liability exists regardless of the statutory warranty or any manufacturer's warranty and covers anyone (not only the customer who purchased the product). The manufacturer need not be at fault (liability independent of fault with reversal of burden of proof).

Product liability is subject to different limitation periods from the warranty (normally three years after the incidence of damage or a maximum of 10 years from the time at which the product is brought into circulation).

Regardless of this, the manufacturer shall be liable, independent of fault, in accordance with the relevant national law (tortious liability) for damage to third parties and to property resulting from a fault in their product. **This liability normally expires after 30 years.**

**Consequential damage due to a lack of product safety does not constitute a warranty claim. These claims are addressed in accordance with Chapter 2.12.**

1.4 Goodwill

Goodwill is the individual settlement of damages occurring on or caused by Bosch products after expiry of the warranty period.

In individual cases, Bosch is willing to verify the extent to which a cost contribution is possible for such damage.

**Bosch has no legal obligation to implement any actions or bear any costs.**
# 2. Guidelines for processing warranty claims

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2. Guidelines for processing warranty claims

2.1 Warranty documentation

When accepting a warranty complaint from a customer all data which are necessary for issuing the warranty report to RG/AV must be recorded on the repair order:

- Customer address
- Product / Order number
- Repair code
- Product plant code
- Date of manufacture
- Fault number
- Vehicle brand and type
- Mileage of vehicle or product (km / BS)
- Purchase or registration date
- Repair acceptance date
- Technical findings
- Mechanic / foreman signature
- Customer signature

For legal reasons the customer is required to sign the repair order at the designated place when it is accepted by the BS. The customer thus acknowledges the BS terms of repair, and must have had ample opportunity to study such terms beforehand. Completion of the warranty work must be confirmed by showing the responsible foreman's signature on the repair order.

The completed warranty documents are subject to the legally prescribed storage period.

On request, BS will allow representatives authorised by Bosch to view the documents and procedures during this period of time, and will provide any information required to assess them. In this context, we refer to the explanations in the service and warranty agreement.
2.2 Drawing up the warranty report

Legitimate warranty BS will submit their warranty reports using the Bosch warranty system (BWS-Online).

The responsible entity for processing and payments reads as follows:

Robert Bosch GmbH
Abt. AA/QMM2
Postfach 41 09 60

76225 Karlsruhe

Phone:  (++49) 721-942-2430

The following explanations deal with the creation of the warranty report for products of the Automotive Technology business sector (UBK)
2.2 (Continued)

Entry fields can be found on the BWS-Online data input screens page 16 + 17.

Header data part 1

**RG/AV customer number** is provided as default data by the system

**Customer number for service centre offices:** (xxxxxxxx eight digits)

**Work card number:** 6 – 9 digits, alpha-numeric entry possible. (More than 6 digits have to be registered with AA/QMM2). For each warranty case a separate work card number (AK-NR.) has to be used.

**Subsequent reimbursement:** A subsequent reimbursement has to be requested in writing to AA/QMM2 (not by starting another input via BWS-Online).

**Ten digit order number of defective products**

Using header data part 1 defective main products starting with 0, 1, 2, 3, 4, 5, 6 can be entered via BWS-Online.

Warranty of spare parts implies that the submitter always reports the main product, the starter, the alternators, the ignition distributor etc.

Main products may also be cam belts, ribbed belts, fan belts as well as cam belt kits and filters, all starting with 1...

Like this, wiper blades and wiper arms starting with 3.....have to be reported as main product.

ZEXEL numbers have to be transcoded into Bosch numbers by using ZEXEL-CD-ZX (previously HB 30 micro card)

**Please note:**

Find below the main products which (on its own) are no functional products. As a principle, the warranty report should bear as order number the main product. The fault number list for the main products contains the fault numbers for the individual associated products.
### 2. Guidelines for processing warranty claims

#### 2.2 (Continued)

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<th>Associated product to be reported as spare parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 00. ... ... Starter</td>
<td>0 33. ... ... Solenoid switch</td>
</tr>
<tr>
<td>0 12. ... ... Alternator</td>
<td>0 192 05. ... Attached-type transistor regulator 1 197 ... ...</td>
</tr>
<tr>
<td>0 221 60. ... ZS/SG assembly</td>
<td>0 273 200 ... Switching devices 1 227 022 ... ... 1 227 020 ... Ignition coil 1 227 030 ...</td>
</tr>
<tr>
<td>0 237 600 ... ZS/SG assembly</td>
<td>1 227 022 ... Switching device</td>
</tr>
<tr>
<td>0 237 50. ... High voltage distribution</td>
<td>1 230 ... ... Cover</td>
</tr>
<tr>
<td>0 237 50. ... High voltage distribution</td>
<td>1 234 ... ... Rotor</td>
</tr>
<tr>
<td>0 237 50. ... High voltage distribution</td>
<td>1 235 ... ... Cap</td>
</tr>
<tr>
<td>0 265 ... ... Hydraulic units for ABS</td>
<td>0 332 ... ... Relay for solenoid valve</td>
</tr>
<tr>
<td>0 265 ... ... Hydraulic units for ABS</td>
<td>0 265 ... ... Relay for return pump</td>
</tr>
<tr>
<td>0 280 01. ... Measuring and control units</td>
<td>0 280 20. ... Air-flow sensor</td>
</tr>
<tr>
<td>0 280 01. ... Measuring and control units</td>
<td>0 280 00. ... Control units</td>
</tr>
<tr>
<td>0 280 15. ... Fuel rail assembly</td>
<td>0 280 15. ... Fuel injector</td>
</tr>
<tr>
<td>0 280 15. ... Fuel rail assembly</td>
<td>0 280 160 ... Pressure regulators</td>
</tr>
<tr>
<td>0 39. ... ... Wipers</td>
<td></td>
</tr>
<tr>
<td>0 40. ... ... Injector assembly</td>
<td>0 410 ... ... Incomplete</td>
</tr>
<tr>
<td>0 40. ... ... Injector assembly</td>
<td>0 411 ... ... Pumps</td>
</tr>
<tr>
<td>0 40. ... ... Injector assembly</td>
<td>0 440 ... ... Supply pumps</td>
</tr>
<tr>
<td>0 42. ... ... Controller</td>
<td>0 42. ... ... Controller</td>
</tr>
<tr>
<td>0 42. ... ... Controller</td>
<td>0 416 ... ... Couplings</td>
</tr>
<tr>
<td>0 42. ... ... Controller</td>
<td>0 33. ... ... Shutoff solenoid</td>
</tr>
<tr>
<td>0 432 ... ... 0 986 ... ... Nozzle holder assembly</td>
<td>0 432 ... ... 0 986 ... ... Nozzle holder assembly</td>
</tr>
</tbody>
</table>
## 2. Guidelines for processing warranty claims

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 432 ...</td>
<td>Nozzle holder assembly</td>
</tr>
<tr>
<td>0 433 ...</td>
<td>Hole-type nozzle</td>
</tr>
<tr>
<td>0 434 ...</td>
<td>Pintle nozzle</td>
</tr>
<tr>
<td>0 438 100</td>
<td>Fuel distributor</td>
</tr>
<tr>
<td>0 438 120</td>
<td>Air-flow sensor</td>
</tr>
<tr>
<td>0 438 201</td>
<td>Central injection unit (ZEE)</td>
</tr>
<tr>
<td>0 438 100</td>
<td>Fuel distributor</td>
</tr>
<tr>
<td>0 438 120</td>
<td>Air-flow sensor</td>
</tr>
<tr>
<td>0 438 201</td>
<td>Central injection unit (ZEE)</td>
</tr>
<tr>
<td>0 132 008</td>
<td>Throttle adjuster (DKA)</td>
</tr>
<tr>
<td>3 437 010</td>
<td>Fuel injector</td>
</tr>
<tr>
<td>3 437 010</td>
<td>Parts sets (NTC, EV, ...)</td>
</tr>
<tr>
<td>3 437 224</td>
<td>Plug housing (potentiometer)</td>
</tr>
<tr>
<td>0 460 ...</td>
<td>Distributor-type fuel injection pump (mech.)</td>
</tr>
<tr>
<td>0 33.</td>
<td>El. shutoff solenoid (ELAB)</td>
</tr>
<tr>
<td>0 460 ...</td>
<td>Distributor pump (EDC)</td>
</tr>
<tr>
<td>0 281 002</td>
<td>Diesel solenoid valve (DMV)</td>
</tr>
<tr>
<td>0 281 005</td>
<td>Diesel anti-theft system (DDS)</td>
</tr>
<tr>
<td>0 54.</td>
<td>Combined hydraulic units</td>
</tr>
<tr>
<td>0 136</td>
<td>Direct current motors</td>
</tr>
<tr>
<td>0 510</td>
<td>Hydraulic gear pumps</td>
</tr>
</tbody>
</table>
2.2 (Continued)

Product combinations that are made up of several on its own functional products are listed below. In case of damage the product combination cannot be used. Instead, the faulty product or the product causing the fault has to be reported. The fault number can be found identifying the individual product.

In case several products in a product combination are causing a damage, a separate warranty report has to be issued for each product causing the damage.

<table>
<thead>
<tr>
<th>Individual products</th>
<th>Product combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report in section A</td>
<td>(Do not report)</td>
</tr>
<tr>
<td>0 438 ... ... Fuel distributor</td>
<td>0 438 0... ... Mixture-control unit</td>
</tr>
<tr>
<td>0 438 120 ... Air-flow sensor</td>
<td></td>
</tr>
</tbody>
</table>

Attention Header data!

The 10 digits part number of the main product has to be entered into the header data part 1, even if a faulty part is concerned which has been removed from the stock (goods in stock). Data of the very product has to be used, not the data of the packaging.

Amount/quantities:
In case several main products of the DS division with identical 10 digits order number and identical technical data (MFD, BWN) are processed, every main product has to be entered with separate report and quantity 01, e.g. jet pump, glow plug, nozzle, CP.
2.2 (Continued)

**Repair code (RPZ)**
Important distinguishing feature for warranty analysis.

- **0** = Warranty claim for a product that was originally installed during manufacture of the vehicle
- **1** = Failure of a product that has been installed like new as a spare or retrofitted (e.g. cam belt, oil filter, park distance control system).
- **2** = Failure of a Bosch product already repaired by BS due to a material or manufacturing defect on a Bosch spare part. **In this case the date of the first repair has to be entered as the date of manufacture! Please use FD table on page 9.**
- **9** = Failure of a Bosch BX assembly

**Plant code number (WSZ)**
Three-digit WSZ stamped on every Bosch product and BX product label

Example: (060) (927) (251) (054) (25H) (25K)

If in exceptional cases no WSZ or BWN can be found on a Bosch product or part, do not leave field blank, but rather contact RO or AA/QMM2
2.2  (Continued)

**Date of manufacture (FD)** generally shows three digits. 
**999 as input is not valid.**

**Attention:** Please observe note for repair code RPZ2.

FD code:

<table>
<thead>
<tr>
<th>Monat</th>
<th>1998</th>
<th>'99</th>
<th>2000</th>
<th>'01</th>
<th>'02</th>
<th>'03</th>
<th>'04</th>
<th>'05</th>
<th>'06</th>
<th>'07</th>
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<th>'10</th>
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<th>'12</th>
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<tbody>
<tr>
<td>Januar</td>
<td>861</td>
<td>961</td>
<td>081</td>
<td>181</td>
<td>281</td>
<td>381</td>
<td>481</td>
<td>581</td>
<td>681</td>
<td>781</td>
<td>881</td>
<td>981</td>
<td>001</td>
<td>101</td>
<td>201</td>
<td>301</td>
</tr>
<tr>
<td>Februar</td>
<td>862</td>
<td>962</td>
<td>082</td>
<td>182</td>
<td>282</td>
<td>382</td>
<td>482</td>
<td>582</td>
<td>682</td>
<td>782</td>
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<td>102</td>
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<td>302</td>
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<td>863</td>
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<td>011</td>
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<td>992</td>
<td>012</td>
<td>112</td>
<td>212</td>
<td>312</td>
</tr>
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</table>

**Encoded FD**
Example: 781 29 ... for 29.01.2007

(After the month code starting with the 4th digit commences the calendar day and internal plant features. These have not to be taken into account until further notice).

**Unencoded FD**
Example: 07-01-29 (Y-M-D) for 29.01.2007

**Fault number**
Section 5 of warranty manual
Do not leave fault number blank, do not enter 99 or internal fault number (e.g. A001!)

**Purchase date/Installation date** of the objected Bosch product or **registration date** of vehicle or **date of first chargeable repair** is while using RPZ 2 the production date.

Concerning goods from stock (warranty term 8) no entry is necessary! Leave field blank.

**Date of failure**
Date of failure and date of detection of failure regarding goods from stock respectively.
2. Guidelines for processing warranty claims

2.2 (Continued)

Serial Number – 10 digits
Only with DS and test engineering

Mileage
Kilometre-/hours of operation of faulty product

BS usually with fixed engines/agricultural vehicles.
Please change unit in selection field into (h)

Warranty type (GA)

<table>
<thead>
<tr>
<th>Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>Field goods</td>
</tr>
<tr>
<td>3</td>
<td>product consequential damage (new)</td>
</tr>
<tr>
<td>6</td>
<td>part to examination by plant</td>
</tr>
<tr>
<td>7</td>
<td>Goodwill</td>
</tr>
<tr>
<td>8</td>
<td>Stock goods (warranty complaints occurring during trial operation, or immediately after fitting before handing over to the end user)</td>
</tr>
<tr>
<td>9</td>
<td>Special actions based on technical mailings or recall</td>
</tr>
</tbody>
</table>

Fault number
Chapter 5 of warranty manual
Attention: DS uses 4 digits fault number
Do not leave fault number empty. Use fault number from list chapter 5. With older EPs these are not provided by BWS Online, enter FN 0100 and enter the correct one in the field "remarks".

Use of vehicle
Private or commercial

Vehicle code

3 digits alphabetic identification of vehicle manufacturer's product to which the observed Bosch good hat been assembled (see next page).

General FLS - identifications

* Complaint by wholesaler, large stores, petrol stations, markets including stock goods, trade goods, vehicle unknown etc. > HDL

* Product from vehicle/assembly not included in the list below (Other) > SON
### 2.2 (Continued)

#### Vehicle / engine code (FMSL)

<table>
<thead>
<tr>
<th>Vehicle/Engine Code (FMSL)</th>
<th>Manufacturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agria AGR</td>
<td>Eberspächer EBE</td>
</tr>
<tr>
<td>Alco ALC</td>
<td>Eicher EIC</td>
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<tr>
<td>Alfa Lancia ALF</td>
<td>Enasa ENA</td>
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<tr>
<td>Alpine ALP</td>
<td>Evinrude EVI</td>
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<tr>
<td>Alsthom ALS</td>
<td>Fahr FAH</td>
</tr>
<tr>
<td>AMC (American Motors Corp.) AMC</td>
<td>Fahrzeug Elektrik Ruhla FEU</td>
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<tr>
<td>Ansaldo ANS</td>
<td>Farymann Diesel FAY</td>
</tr>
<tr>
<td>AS Motor ASM</td>
<td>Faun FAU</td>
</tr>
<tr>
<td>Aspera ASP</td>
<td>Fendt FEN</td>
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<tr>
<td>Aston Martin AST</td>
<td>Fenwick FEK</td>
</tr>
<tr>
<td>Atlas Copco ATL</td>
<td>Ferrari FER</td>
</tr>
<tr>
<td>Audi AUD</td>
<td>Fiat FIA</td>
</tr>
<tr>
<td>Austin AUI</td>
<td>Fiat-Allis FAL</td>
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<tr>
<td>Austin Healey AUL</td>
<td>Fichtel &amp; Sachs FIC</td>
</tr>
<tr>
<td>Autobianchi AUO</td>
<td>Ford FOR</td>
</tr>
<tr>
<td>Auwaerter AUW</td>
<td>Ford New Holland FNH</td>
</tr>
<tr>
<td>Barkas BAS</td>
<td>Freightliner FRL</td>
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<tr>
<td>Barreiros BAR</td>
<td>Fuchs FUC</td>
</tr>
<tr>
<td>Baudouin BAO</td>
<td>GM (General Motors Espana.) GMS</td>
</tr>
<tr>
<td>Bedford BED</td>
<td>Gueldner GUL</td>
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<tr>
<td>Behr BEH</td>
<td>Gutbrod GUT</td>
</tr>
<tr>
<td>Bentley BEY</td>
<td>Hako HAK</td>
</tr>
<tr>
<td>Bernard Moteurs BEW</td>
<td>Hanomag HHF</td>
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<tr>
<td>BMW BMW</td>
<td>Harley-Davidson HAP</td>
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<tr>
<td>Bombardier BOM</td>
<td>Hatz HAT</td>
</tr>
<tr>
<td>Briggs and Stratton BRG</td>
<td>Hercules (Sachs) HER</td>
</tr>
<tr>
<td>Buesing BUS</td>
<td>Hispanomotor S.A. HIM</td>
</tr>
<tr>
<td>Bugatti BUG</td>
<td>Holden HOL</td>
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<tr>
<td>Buick BUI</td>
<td>Holder HLD</td>
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<td>BUKH BUK</td>
<td>Honda HON</td>
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<tr>
<td>Cadillac CAD</td>
<td>Hyundai HYU</td>
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<tr>
<td>Case IH CIH</td>
<td>IH (International Harv.) IHC</td>
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<tr>
<td>Caterpillar CAT</td>
<td>Ikarus IKA</td>
</tr>
<tr>
<td>Chevrolet CHE</td>
<td>ILO ILO</td>
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<tr>
<td>Chrysler CHR</td>
<td>Isuzu ISU</td>
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<tr>
<td>Citroen (PSA) CIT</td>
<td>Ivec IVE</td>
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<tr>
<td>Claas CLS</td>
<td>Jaguar JAG</td>
</tr>
<tr>
<td>Claeys (Flandria) CLB</td>
<td>John Deere DEE</td>
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<tr>
<td>Clark CLA</td>
<td>Jungheinrich JUH</td>
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<tr>
<td>Clayson CLE</td>
<td>Kaelble KAE</td>
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### 2. Guidelines for processing warranty claims

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Code</th>
<th>Model/Brand</th>
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<tbody>
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<td>Kaessbohrer</td>
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<td>Dacia</td>
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<td>Karmann</td>
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<td>Daewoo</td>
<td>DAO</td>
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<tr>
<td>DAF</td>
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<td>Daihatsu</td>
<td>DAA</td>
<td>KHD</td>
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<tr>
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<td>Krauss-Maffei</td>
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<td>DAT</td>
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<td>DFH</td>
<td>Lancia</td>
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<tr>
<td>Diesel-Kiki (Zexel)</td>
<td>DKK</td>
<td>Lanz</td>
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<tr>
<td>Dodge</td>
<td>DOD</td>
<td>Leyland</td>
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<td>Dolmar (Sachs Dolmar)</td>
<td>DOL</td>
<td>Leyland-DAF</td>
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<td>Droegmoeller</td>
<td>DRG</td>
<td>Liebherr</td>
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<td>LIN</td>
<td>Rover Group</td>
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<tr>
<td>Linde</td>
<td>LID</td>
<td>RVI (Renault Vehicules Ind.)</td>
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<td>LIS</td>
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<td>Saab-Scania commercial vehicles</td>
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<td>Sachs (Fichtel u. Sachs)</td>
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<td>MTU</td>
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<td>Tatra</td>
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<td>MWM-Diesel (Diter)</td>
<td>DIT</td>
<td>Toro</td>
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<td>Navistar</td>
<td>NAV</td>
<td>Toyota</td>
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<td>NEO</td>
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<td>New Holland (Sperry New Holl.)</td>
<td>NEH</td>
<td>Triumph</td>
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<td>Date</td>
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Note: The table lists manufacturers and their codes, some of which are from specific brands or models. The purpose is to identify the warranty processing guidelines for various automotive technologies.
2. Guidelines for processing warranty claims

<table>
<thead>
<tr>
<th>Company</th>
<th>Code</th>
<th>Manufacturer</th>
<th>Code</th>
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</thead>
<tbody>
<tr>
<td>Nissan Motors L. (Japan)</td>
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<td>Nissan Motors Iberica</td>
<td>NMI</td>
<td>Valtra</td>
<td>VLT</td>
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<td>O &amp; K (Orenstein &amp; Koppel)</td>
<td>ORE</td>
<td>Valtra Do Brasil</td>
<td>VDB</td>
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<td>OLD</td>
<td>Van Hool</td>
<td>HOO</td>
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<td>OPE</td>
<td>Vauxhall</td>
<td>VAU</td>
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<td>Pegaso (Enasa)</td>
<td>PEG</td>
<td>Vespa (Piaggio)</td>
<td>VES</td>
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<tr>
<td>Perkins</td>
<td>PER</td>
<td>VM (Stabilimenti Meccanici)</td>
<td>VMA</td>
</tr>
<tr>
<td>Peugeot</td>
<td>PEU</td>
<td>Volvo (cars + commercial vehicles)</td>
<td>VOL</td>
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<td>Piaggio</td>
<td>PIA</td>
<td>Volvo BM</td>
<td>VOB</td>
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<td>PLY</td>
<td>Volvo Penta</td>
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<td>Wartburg</td>
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<td>WEB</td>
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<td>White</td>
<td>WHI</td>
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<td>YAM</td>
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<td>Rotax (Bombardier-Rotax)</td>
<td>ROT</td>
<td>Zettelmeyer</td>
<td>ZET</td>
</tr>
</tbody>
</table>
2.2 (Continued)

**Engine code**

Different codes can be entered, in case engine and vehicle are made by different manufacturers.

**Chassis number or VIN number (with warranty type 00)**

Necessary for plausibility checks and tracing, required especially in the DS area.
No entries or wrong entries will generate reversal debits or rejection.

**Travel km**

We will only accept the cost of a trip to the customer with a warranty complaint, including the return trip to the closest BS (max. 30 km each leg).
Reimbursement will be 0,30 € per km (actual rate). Any excess charges have to be justified.

**Travel time**

Entries are expected in hours (h)

**Special costs field**

Special costs have to be specified without VAT.

Field 1 for shipping-, overnight shipping costs of BG/BS

Field 2 for
- ez/parts which have to be bought for warranty reasons in individual cases
- sole A+E costs, towing costs of vehicle agencies, independent workshop partners (towing costs only for private vehicle users) (Warranty manual Chapter 3.1.3.1.)
Product-consequential product damage

Please indicate on every invoice your customer number and the AK number and forward these on request.

Field 3
not available at the moment
2.2 (Continued)

**Special costs**
Always specify in **EUROS, without VAT**!

Notification of BG/BS night shipping costs.
Products / parts that need to be bought in for warranty repairs in individual cases.
Recovery costs of vehicle agencies and independent workshop partners.
(Reimbursement for private vehicle users only), see section 3.13.

**Service/repair time in hours**
by the warranty authorized BS with warranty contract

Please indicate time required, test time and error diagnostics will be regarded as repair time.

**Removal and installation time**
Removal and installation time by warranty authorized BS with warranty contract.
Reference times according to the work value catalogue (e.g. DAT) or ESI-Infoart B (CD-B) or from vehicle manufacturer.

**Do not enter removal or installation time of BS without warranty contract and of third party workshops.**

**Vehicle model, year of vehicle model, vehicle type, engine type and action number** are all optional fields, where data no necessarily has to be entered.

**Spare parts**
10 digits Bosch order number of the EZ/ET used in the warranty repair with price code (0 – original goods, or 9 – BX goods).

In case no EZ./part is necessary or it has to be bought by an external supplier, this field has to remain blank.

**Quantity**
of identical EZ./parts, which have been used in the warranty repair, usually the quantity 01.
In case no Ez./part is necessary, this field has to remain blank.
**Identical Ez./part number always sum up to a quantity!**

**Manufacturing date**
In case the replaced spare part is a good, e.g. a EP, the FD will be asked for, too.
2.2 (Continued)

**Serial number**
In case the replaced spare part is a good, e.g. a EP, the serial number will be asked for, too.

Price code
New Ez./parts are identified with 0, BX-Ez./parts by 9.

Explanation:
- Description of product fault
- Explanation of entries in field special costs
- Explanation regarding travel km and travel time
  (text will be saved by pushing the Enter button)
BWS Online input screens

New Claim

Claim entry

Current Date: Jun 1, 2005 3:56:07 PM  Username: TESTYEHK

ROJ AV

Service Partner No.

Claim No.

Warranty Type: 1

Counter: 1

Defect Product:

Quantity: ST

Repair Code

Currency: EUR

Next

Header Data Part 2  Spare parts  Explanation

Defect Product:

Quantity:

Repair Code:

Product Hierarchy:

Delivery:

Factory Code:

Manufacturing Date Code:

Manufacturing Date Code:

Delivery Date:

Failure Date:

Serial No.:

Mileaged / Service Hours:

Warranty Code:

Defect Code:

Vehicle Use:

Vehicle Code:
### 2. Guidelines for processing warranty claims

BWS Online entry screens

**Header Data Part 2**  **Spare parts**  **Explanation**

<table>
<thead>
<tr>
<th>Remark 1:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Remark 2:</td>
<td></td>
</tr>
<tr>
<td>Remark 3:</td>
<td></td>
</tr>
<tr>
<td>Remark 4:</td>
<td></td>
</tr>
<tr>
<td>Internal Remark:</td>
<td></td>
</tr>
</tbody>
</table>
2.3 Correction of BWS online data

Warranty claims reported undergo a plausibility check while SAVED and afterwards show status 02 – 06 for use in BWS Online.

The significance of status information 02 – 06 read like follows:

- **02** obligation to correct by RB
- **03** obligation of rework by RB
- **04** obligation to send in - data correction by RB
- **05** obligation to send in - rework by RB
- **06** obligation to send in - approval by RB

A complete summary of status information can be found in the BWS Online manual M1.

Please take notice of error indications during data input and plausibility check, respectively and correct input errors immediately.
2.4 Removal and installation, troubleshooting, test time

For removing and installing Bosch products specifications from the valid "DAT calculator, the ESI data" and the specifications of the car manufacturers are mandatory.

We consider as self-evident that removal and installation times reported to us, do not show excess times than actually required. Troubleshooting and test time have to be reported as repair time. Bosch reserves the right to make appropriate reductions in individual cases (see Chapter 1.2.6).

2.5 Determination of cause of failure

Investigation by trained personnel only, using the product-specific ESI documents and fault number lists from Chapter 5. For causes of failure that cannot be defined using the fault numbers, detailed plain text entries have to be made in section "comments" of the BWS Online report. For diesel injection pumps an additional corresponding test log has to be generated and be stored together with the work card. This is available on the ESI-CDW.
2.6 Warranty reimbursement

2.6.1 Remuneration form

Warranty claims submitted by the customer offices and acknowledged by RB will be remunerated weekly to the corresponding RG and will be shown with status 11 in BWS Online.

2.6.2 Subsequent remuneration / unremunerated reports

In case a warranty report has not been remunerated or has been remunerated only partially, please do not forward new reports, but claim indicating your Bosch customer number and the already used AK number against AA/QMM2.

2.6.3 Return debit

While checking the warranty credit notes you find out that a higher amount has been remunerated than the amount reported, AA/QMM expects a corresponding notification. Following checks by AA/QMM2 a return debit will be carried out.

2.7 Periods, submissions, charges

2.7.1 Storage periods

Remunerated warranty goods (products and spare parts) have to be stored by the presenting party from the booking date of the invoice as follows:

- **New goods**: 8 weeks
- **DS goods**: 12 weeks
- **BX replacement goods**: 5 weeks

While using BX parts the removed unit has to be put into recirculation after the safekeeping period.

Credits for warranty goods can be debited back again to the presenting party due to the investigation report.

During the safekeeping period Bosch may request these goods for later examination. In case requested warranty goods cannot be presented within the storage period these warranty goods will not be credited but will be debited.

**New goods not capable to be recycled have to be scrapped**
2.7.2 Submission of warranty goods

The submission will be carried out using the Bosch delivery note 1 987 742 849 as enclosure 1 and sent to the respective special department. We suggest a print out of the delivery note out of BWS Online while processing the warranty claim (not remunerated cases only).

Submissions by request of RB departments should be sent in on a 'freight collect' basis (i.e. charges will be paid by recipient).

With a max. weight of 32 kg the shipment will be carried out by United Parcel Service (UPS). The UPS delivery forms have to bear the UPS customer numbers of the respective Bosch plants as indicated in enclosure 2.

DHL is recommended when passing the limit of 32 kg (e.g. wire mesh box). Optionally, local shippers can be used (cost comparison).

Strictly, submissions by BS or on customers' request have to be sent in 'prepaid' (i.e. sender pays freight costs).
Delivery Note for Return of Defective Products
Warranty / Goodwill / Parts for Investigation

Robert Bosch GmbH
Delivery Note No.: 0445110076 060 JL0580
Date: 22/06/09
Customer No.: 106001 / 43000605
FeP/CLP31 ADMO 605/0
Sender Address
Wernerstr.51
70469 Stuttgart
Germany

Herewith You receive

<table>
<thead>
<tr>
<th>Qty</th>
<th>Order No.</th>
<th>BWN</th>
<th>Serial No.</th>
<th>Task No. (GM-Nr.)</th>
<th>Credit Note received</th>
<th>Date of Credit Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Reason for submission:
__ Request of Department ___________________________________________ from ____________________ ___
No internal opprtunity for analysis __ Customer insists on investigation at Bosch *) complete warranty claim is enclosed

Complaint of customer and our result
__ FRAIS DE TRANSPORT
__ CLAQUEMENT MOTEUR A MI REGIME
If request of warranty/goodwill is granted
__ claim is closed because of already issued credit note
__ we request a credit not ( warranty claim is enclosed)
__ we request repair free of charge ( warranty claim for expenses is enclosed)
__ we request a report on the enclosed response letter

Please let us know the reasons, if the warranty/goodwill claim is rejected. If we do not receive a response within 5 weeks from receipt of the products, the claim is granted automatically.
Products of the division DS or consequential damage of production may require more time for investigation.
2. Guidelines for processing warranty claims

Enclosure 2 of chapter 2.7.2

Division shipping addresses for trade products

Please note the Bosch customer number on the UPS waybill

Robert Bosch GmbH...

**AA**
- AA/LOG-AD12
- Auf der Breit 4
- 76227 Karlsruhe
- BWN = 250
- UPS-KD-Nr. 68A632

**CC**
- CC/QMC6
- Robert-Bosch-Allee 1
- 74232 Abstatt
- BWN = 201
- UPS-KD-Nr. E6741V

**SG**
- SG/QMC1
- Rober Bosch-Str. 2
- Schwieberdingen
- BWN = 219
- UPS-KD-Nr. 68A844

**GoeP**
- GoeP/W5200
- Robert-Bosch-Breite 3
- 37079 Göttingen
- BWN = 095
- UPS-KD-Nr. 994861

**AAD**
- AA/FEA 4
- Robert-Bosch-Str. 10
- 73207 Plochingen
- BWN 088
- UPS-KD-Nr. 633V62

**DS**
- FeP/CLP 31
- z.W. an ADMO-605/0
- Wernerstraße 51
- 70469 Stuttgart
- BWN = 011
- UPS-KD-Nr. 68A827

**GS**
- * GS/QMC3-Fe
- Wernerstr. 51
- 70469 Stuttgart
- BWN = 020
- UPS-KD-Nr. 68A827

**MuP**
- MuP/QMM1
- über MuP/ALP5
- Truderinger Str. 191
- 81673 München
- BWN = 014
- UPS-KD-Nr. 68A621

**ALRT**
- Automotive Lighting
- ALRT/QCC über
- AL/LOG31
- Tübinger Straße 123
- 72762 Reutlingen
- BWN = 081
- UPS-KD-Nr. 75737Y

**BueP**
- BueP/QMM1-WS
- Robert-Bosch-Str. 1
- 71701
- Schwieberdingen
- BWN = 219
- UPS-KD-Nr. 68A606

**GS**
- GS/QMC 3
- Bau Si 209
- Robert-Bosch-Str. 2
- 71701
- Schwieberdingen
- BWN = 219
- UPS-KD-Nr68 .A844
2.7.3 Charges due to subsequent product investigations

If it is established during the inspection of the requested parts that the warranty claim is not justified, already effected payments will be charged back. The faulty parts will be available up to 4 weeks after notification of the investigation result upon request.

Return delivery may also consist of dismantled/destroyed partial components. Normally, it does not make sense or it is impossible in a technical or economic way to re-establish the former condition.

In case you or your customer insist that EZ. Parts should be shipped back, Bosch will charge the freight costs to the recipient.

> Please inform your customers within your duty of information about this matter before reporting the warranty claim.

2.8 Testing and investigation costs

2.8.1 Testing costs at BS

These costs are part of the repair costs if a material or manufacturing defect has occurred; Bosch shall refund such costs.

If there are no material or manufacturing defects (no warranty claim), the investigation costs will be charged to the applicant.

Consequently, it is recommended that the repair order (work card) necessarily contains the following information:

"If the warranty claim has to be denied because there is no material defect according to legal terms, the cost of investigation has to be charged to the claimant."

2.8.2 Costs of product investigations at RB departments

- In case of product requests by RB departments, no investigation costs will be charged as a principle.
- Product submissions not agreed with RB will be returned 'freight collect'.
- If the applicant does not accept the warranty rejection from the TBS/BS and insists in an investigation by Bosch, it is essential that the applicant will be informed that costs for investigation and shipping will be charged to the applicant, in case the RG/BS findings will be confirmed.
2.9 Incorrect delivery, transport damage and goods return are no warranty cases

Processing will be effected only by RG.

In case of queries, the complaint team AA/QMM3 should be contacted, while transport damages have to be reported to AA/LOG-AD32.

2.10 Warranty processing for Bosch products manufactured abroad

Bosch vehicle equipment products are not only manufactured in Germany, but also in Bosch production companies in other countries, primarily to be supplied as original equipment for motor vehicles manufactured locally.

Warranty cases on products manufactured abroad normally can be identified apart of the notation of origin "Made in ...." that the first digit of the order number shows '9'.

They have to be processed the same way as warranty claims related to products manufactured in Germany.

2.11 Repair code

Bosch and the Bosch Service issue serial and single repaired RB goods with repair codes and FD to be able to determine the warranty period. Warranty claims for repaired products without repair code must be verified by presenting the repair invoice.

If a product (e.g. EP) is individually repaired, a repair code – where available – and date has to be added.
2.12 Consequential product damage

Claims to Bosch due to consequential product damage has to be registered as follows:

1. The product causing the damage together with
   - return delivery note 1 987 742 849
   - fully completed warranty report consequential product damage
   - available documentation (paid third party invoices, cost estimates expert reports, customer letters) together with
   - the printed BWS Online application has to be sent to the corresponding LOG, FSW, QAS, QSG, QMM departments of the responsible UBK division (directions see enclosure 2 of chapter 2.7,.2).

2. It has to be ensured definitely that the damaged non-Bosch parts will not be scrapped, in order that these parts may be examined by Bosch on request. During the settlement of consequential product damages we will in line with legal possibilities and where appropriate cover legitimate consequential damage costs only in part if by the repair of parts of the vehicle an overall increase in value occurs. This applies especially in cases where goods or vehicles parts are damaged which had been in use for a long time and for which the customer has received original goods or similar original replacement parts fitted in the customer's vehicle as a replacement. In such cases, it is appropriate to make a reasonable deduction "new for old".

3. Please note that with the reimbursement of the costs the damaged RB and third party assemblies are transferred into our ownership. We reserve the right of reclaiming and scrapping, respectively by RG/BS.

4. After inspection and acknowledgement of the product error by the respective LOG, FSW, QAS, QSG, QMM departments the settlement of the documented and justified costs of the consequential product damages by the responsible UBK area to the in the consequential product damage report specified authorised payment recipient (customer or work shop) taking into account the legal basis for claims.

5. While reporting consequential product damages of tooth/fan belts and tensioner we ask you to bear in mind the warranty newsletter as of 02/2006.

The displayed blank form of the “Damage Report Consequential Damage from Product” is only a sample. Originals are retrievable at AA/QMM2.
### 2. Guidelines for processing warranty claims

#### Damage Report Consequential Damage from Product

**Schadensbericht Produkfolgeschaden**

Name of Exhibitor: 
Name of supplier: 
Issue Date: 
Date of receipt: 
Department: 
Processing No.: 

| KD-No. | AK/QM-No. | LS-No. | Customer address: 
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Person authorized to receive payment 
(Only if different from customer's address / Name and address)

Bank details: 
Name of the bank: 
Account no.: 
Sort code: 

Use of the vehicle: 
Private ___ Business ___

Prior tax deduction: 
Yes ___ No ___

Costs of rectifying damage: 
Customer requires: 
Replacement ___ Participation ___

Detailed costs estimate/invoice for repair: 

Product which complaint made about: 

Amount: 
Purchase/Installation Date: 
Date of failure: 

Endurance performance of the product: 
Km/h: ___ 
Month(s): ___

Affected Vehicle: 
Make/Manufacturer: 
Type: 
Type of Engine: ___ Cubic Capacity: ___ 
km/h: ___ Date of first Registration: ___

Description by other means: 

K/VAK-K/OSG-Decision - on the origin on the fault in the product see back of form

Date: 

Good will suggestion: 

Goods returned: 

Robert Bosch GmbH 
K Division / Good Will K
Department: 

Signature: 

Appendix to section 2.12
Processing consequential product damage (AA products)
Appendix to section 2.12
Processing consequential product damage (Non AA, e.g. DS, GS, SG)
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3.1 Handling procedure with the vehicle manufacturer – KD organisation

3.1.1 Submarket procedure

The type of central warranty settlement selected by most of the EA customers is summarized in a term "Submarket procedure". This means:
The warranty complaints from a defined market segment with known vehicle population are investigated, the acknowledged complaints are converted in relation to vehicle population for every product group and the factors obtained in this way are transferred to the complete sales of vehicles with Bosch equipment in an accounting period.

The complete warranty obligations of Bosch are settled by this accounting process. However if warranty complaints outside the submarket are settled by authorized organizations with Bosch; this means a double warranty loading for the concerned business division.

Warranty maintenance of vehicle importers or OE contractual partners is to be taken up against invoicing.
3.1.1.1 Submarket procedure with original equipment manufacturer

### Customer

<table>
<thead>
<tr>
<th>BMW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daimler passenger car</td>
</tr>
<tr>
<td>Daimler commercial vehicle</td>
</tr>
<tr>
<td>Hyundai, Kia</td>
</tr>
<tr>
<td>Iveco Truck</td>
</tr>
<tr>
<td>KHD (Deutz)</td>
</tr>
<tr>
<td>MAN</td>
</tr>
<tr>
<td>Opel</td>
</tr>
<tr>
<td>PSA/Citroen/Peugeot</td>
</tr>
<tr>
<td>Renault</td>
</tr>
<tr>
<td>RVI</td>
</tr>
<tr>
<td>Saab</td>
</tr>
<tr>
<td>Volvo - Car</td>
</tr>
<tr>
<td>VW/Audi</td>
</tr>
</tbody>
</table>

For all those vehicle manufacturers who are not mentioned in the submarket procedure and their vehicle agencies, there exists a possibility for settlement on the basis of individual cases through Bosch Service.
3.1.2 Special procedure for warranty processing

3.1.2.1 DAF

With DAF, there is a lump sum compensation of all field guarantee claims for all Bosch products (also for diesel injection components). The processing of warranty for all RB products is done only through the vehicle manufacturer.

3.1.2.2 Mazda (with Bosch Common Rail System, engine BT-50)

The following settlement procedure is valid for Mazda:
The Mazda dealer transfers a Bosch component under complaint, with a filled-in CRHP form for repair to BDS/BDC.
The BDS/BDC executes the repair work on the Bosch component under complaint and charges the Mazda dealer with the arising maintenance costs.

This regulation is valid world-wide (except for USA, Canada, Europe, Thailand). In the countries that are excluded, the vehicle manufacturer is responsible for the warranty processing.

3.1.2.3 Hyundai / Kia

With Hyundai and Kia, there is a lump sum compensation of all field guarantee claims for all Bosch products (also for diesel injection components). The processing of warranty claims for all RB products is done only through the vehicle manufacturer.

3.1.2.4 Ford, warranty processing

3.1.2.4.1 Disassembly and assembly of EP by Ford dealer

If the Ford dealer determines a complaint with respect to a Diesel injection pump, he disassembles it and brings to BS for free of cost maintenance under special notice for warranty claim.
Disassembly and assembly costs are reimbursed to the Ford dealer by Ford.

3.1.2.4.2 Disassembly and assembly by Bosch Service

The Ford dealers can also handover the complete vehicle to Bosch Service if required, for rectification of faults. BS can settle the costs with regard to disassembly and assembly procedure with Bosch in such cases.

3.1.2.5 Daimler AG

Diesel injection pumps (EP)

Warranty claims on EP that are maintained by DAG themselves and detected through color coded dots and / or a “B” on the drive flange, can be processed only through DAG by DAG-Aftersales service as well as by the vehicle owner.
3.1.2.6 Scania Truck

With Scania, there is a general warranty agreement for the so-called "Small parts", i.e. for Bosch products which are usually not repaired, instead are completely replaced.

Parts which do not fall under "Small parts" are:
Diesel injection pumps, -injection nozzle, -fuel filter, starter generators (new + BX).
The processing of warranty claims is executed between Scania- and Bosch Service organization for these products.

With regard to processing of warranty of "Small parts" through Bosch Service organization, point 3.1.1 is valid accordingly.

Warranty processing for Bosch diesel injection pumps, -injection nozzle, -fuel filter, starter and generators (new + BX).
The warranty can be processed in the usual manner if Scania importers, workshops or vehicle owners with the above mentioned Bosch products that are directly delivered by Scania, come to BG/BS for processing of warranty.

3.1.2.7 Volvo Truck Corporation (VTC), Volvo Construction Equipment (VCE), Volvo Penta, Renault Véhicules Industriels (RVI) and Mack

Here exists a central processing of warranty claims for Bosch products. Exceptions are diesel products (in-line pumps, distributor pumps, unit injectors); these can also be processed by Bosch Service Organisation.

3.1.2.8 AGCO Group with SISU engines

Allocated vehicle manufacturer:
Massey Ferguson
Valtra
Fendt
Challenger

DS takes over the warranty claim costs for vehicle importers and their contractual partners; the DS products under warranty claim maintenance must be submitted to BDS/BDC. The processing is done through BWS online system.

3.1.2.9 Fiat Power Train/IVECO (FPT):

Assembly and disassembly costs of OE- workshop must not be reported via BWS online. FPT-internal settlement takes place here.
3.1.3 Warranty indemnification to vehicle manufacturer / vehicle agencies

a) The vehicle agencies fill-in their own warranty application for every case, in which, reimbursement of disassembly and assembly costs is applied for. These warranty applications must be delivered together with the products. The applications that are filled-in and checked by BG/BS are to be preserved with the job card corresponding to the agreed time limit valid for this (chapter 2.1).

b) Applications which are submitted belatedly for reimbursement of disassembly and assembly costs, can no longer be taken into consideration.

c) Only the time period that is truly required for disassembly and assembly according to operational values from DAT or vehicle manufacturer will be compensated.

d) In addition, towing charges of vehicles used for private purpose are compensated in an appropriate manner. Reimbursement of towing costs of commercially used vehicles is done only in countries with statutory regulations (e.g. Germany).

e) The defective Bosch product is to be delivered to BG/BS free of cost.

f) Undefined costs are basically not reimbursed:

   e.g. "Other additional costs", costs for disassembly and assembly of engine housing, covering, exhaust-gas systems and additional units of every type, costs for overnight stay, extended holidays, failed business, loss of use.

   As per mutual agreement, in exceptional cases, these costs can be partially or completely reimbursed by producing a proof in writing (supporting documents, invoices).

   g) In case of malfunctioning of Bosch products (RPZ 2) that are already repaired by BS, no costs concerning disassembly, assembly and maintenance procedure are accepted.
3.2 Reimbursement regulation for trading partner and free workshops

3.2.1 Conditions:

- The defective Bosch product is to be delivered free of cost to BG or GH. The product must be in the original state, i.e. it must neither be modified nor serviced.

- The proof for warranty claims is to be produced by submitting originals of proof of purchase (invoice, receipt).

- A detailed invoice for disassembly time and assembly time and cost rate for every AW (in Germany, a filled-in commercial GVA application) is to be attached to the product under complaint.

3.2.2 Warranty regulation

For trading partners and independent workshops, the specified hourly rate is reimbursed, however, maximum to the extent of hourly rate of the respective BG/TBS.

A possible reduction is to be carried out by the responsible RG/BG/TBS before submitting BWS online application. When acknowledging the warranty requirement, the RG/BG provides replacement in kind or free of cost maintenance as a rule; in exceptional cases there can be a credit note.

The following are reimbursed in addition:

Absolute time for disassembly and assembly process at the vehicle according to the operational values from DAT or vehicle manufacturer with specified hourly rate.

Towing costs for vehicles used for private + commercial purpose (commercially only if legally applicable) used in an appropriate manner.

Applications which are submitted belatedly for reimbursement of costs concerning disassembly and assembly procedure, towing costs, can no longer be taken into consideration.

The following are basically not reimbursed:

"Other additional costs", costs for disassembly and assembly of engine housing, covering, exhaust-gas systems and additional units of every type, costs for overnight stay, extended holidays, failed business, loss of use.

After agreement, in exceptional cases, these costs can be partially or completely reimbursed, by producing proof in writing (supporting documents, invoices).
### 3.3 Extended vehicle manufacturer-specific Bosch warranty period

<table>
<thead>
<tr>
<th>Customer</th>
<th>Products</th>
<th>Period of time</th>
<th>Mileage/operating hours (Bstd.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case New Holland</td>
<td>all</td>
<td>12 months</td>
<td>unlimited (starting from vehicle registration)</td>
</tr>
<tr>
<td>Cummins</td>
<td>Commercial vehicle</td>
<td>24 months</td>
<td>200,000 Km</td>
</tr>
<tr>
<td>Cummins</td>
<td>Stationary engine</td>
<td>24 months</td>
<td>2400 – operating hours</td>
</tr>
<tr>
<td>MB industrial engine</td>
<td>all</td>
<td>24 months</td>
<td>200,000 Km / 2400 operating hours</td>
</tr>
<tr>
<td>Deutz</td>
<td>all (without CRS)</td>
<td>24 months</td>
<td>100,000 km or max. 2000 operating hours</td>
</tr>
<tr>
<td></td>
<td>CRS</td>
<td>24 months</td>
<td>250,000 km or max. 5000 operating hours</td>
</tr>
<tr>
<td></td>
<td>all</td>
<td>max. 36 months</td>
<td>after date of manufacture</td>
</tr>
<tr>
<td>Fiat Auto</td>
<td>all</td>
<td>24 months</td>
<td>unlimited</td>
</tr>
<tr>
<td>Ford</td>
<td>CRS</td>
<td>24 months</td>
<td>unlimited</td>
</tr>
<tr>
<td></td>
<td>VP30</td>
<td>12 months</td>
<td>unlimited</td>
</tr>
<tr>
<td>Ford Otosan</td>
<td>all</td>
<td>12 months</td>
<td>100,000 Km</td>
</tr>
<tr>
<td>Hyundai</td>
<td>all</td>
<td>36 months</td>
<td>100,000 Km</td>
</tr>
<tr>
<td>Iveco</td>
<td>all</td>
<td>24 months</td>
<td>unlimited</td>
</tr>
<tr>
<td>John Deere</td>
<td>VP44, RP, DHK</td>
<td>24 months</td>
<td>160,900 Km / 3500 operating hours</td>
</tr>
<tr>
<td>KIA</td>
<td>all</td>
<td>36 months</td>
<td>100,000 Km</td>
</tr>
<tr>
<td>MAN</td>
<td>all</td>
<td>12 months</td>
<td>unlimited, or 24 months 320,000 km</td>
</tr>
<tr>
<td>Mazda</td>
<td>all</td>
<td>36 months</td>
<td>100,000 Km</td>
</tr>
<tr>
<td>Mitsubishi</td>
<td>all</td>
<td>36 months</td>
<td>100,000 Km</td>
</tr>
<tr>
<td>Passenger car</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitsubishi Fuso</td>
<td>all</td>
<td>36 months</td>
<td>100,000 Km</td>
</tr>
<tr>
<td>Nissan</td>
<td>all</td>
<td>36 months</td>
<td>100,000 Km</td>
</tr>
<tr>
<td>Perkins</td>
<td>all</td>
<td>24 months</td>
<td>2400 operating hours</td>
</tr>
<tr>
<td>VM Motori</td>
<td>all DS-EZ</td>
<td>24 months</td>
<td>unlimited</td>
</tr>
<tr>
<td>VTC, VCE, Penta,</td>
<td>P-, R-EP, VP44, UI</td>
<td>24 months</td>
<td>unlimited or max. 30 months after date of manufacture</td>
</tr>
</tbody>
</table>
Mack, RVI in **Europe and Asia**

VTC, VCE, Penta, P-, R-EP, VP44, UI  24 months unlimited, or max. 30 months after date of manufacture

Mack, RVI in **South/Middle/North America**  36 months 300,000 miles, max. 48 months after date of manufacture

<table>
<thead>
<tr>
<th>Brand</th>
<th>Model Type</th>
<th>Warranty Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>VW / Audi</td>
<td>all</td>
<td>24 months 100,000 Km</td>
</tr>
<tr>
<td>Seat / Skoda</td>
<td>all</td>
<td>24 months 100,000 Km</td>
</tr>
<tr>
<td>Scania</td>
<td>all</td>
<td>12 months unlimited or 24 months 200,000 Km</td>
</tr>
<tr>
<td>SISU</td>
<td>DS-EZ tractors</td>
<td>12 months unlimited</td>
</tr>
<tr>
<td></td>
<td>DS-EZ combine harvester</td>
<td>24 months unlimited</td>
</tr>
</tbody>
</table>

As against the private user, the legal warranty period of 24 months from assembly / delivery to end customers is especially valid here.
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4.1 BX- replacement product

4.1.0 General

For BX replacement products, which are under obligation for returning and which are serviced in-series by Bosch or contract companies, a reduced retention period of BG/BS of 5 weeks from the date of credit note for warranty products is valid in the interest of fast return of old parts within the replacement cycle.

The old part-credit note of deposit value is done with separate credit note by BWS Online. The old part-credit note of deposit value is done in a similar manner if technical testing is required for a warranty product within the retention period by the responsible RB test locations and it is retained there.

4.1.1 Bosch BX –Starters and Generators

Warranty claims on Bosch- BX- starters and generators are to be basically cleared up through assembly of the similar replacement unit. This is also valid if repair work of the defective unit appears to be more economical in certain instances. Exceptions are permissible only if short-term delivery of a complete BX unit is not possible or special circumstances exist.

For a desired tracking of quality, it is absolutely necessary that the details regarding - plant code (to the left of BX symbol), - manufacturing date (to the right of BX symbol) that are put on the replacement adhesive label at the specified location, are included in the warranty application.

For BX starters and generators, it is valid within the warranty period to observe general obligation for returning, according to the respectively valid warranty circular, to Robert Bosch GmbH, Robert- Bosch- Breite 3, department WS200, 37079 Göttingen, The responsible BG sends obsolete components to the following address after the expiry of warranty period: Robert Bosch GmbH, Robert- Bosch- Breite 3, 37079 Göttingen.
4. Product-specific Material defect procedure

4.1.2 Bosch BX distributor-type injection pumps

With BX distributor-type injection pumps, in warranty case, it is processed exactly as in case of new distributor-type injection pumps, as against BX-AL/LJ. This means that repair work is basically carried out only if parts are missing or if the repair work is uneconomical; replacement is done with a complete BX product. In the latter case, the replaced BX distributor-type injection pump with BWS Online warranty report and delivery note 1 987 742 849 is to be sent to DS.

The responsible BG sends obsolete goods to the following address after the expiry of retention period: Robert Bosch GmbH, Robert- Bosch- Breite 3, 37079 Göttingen.

4.2 Starter batteries
(trademark range of Bosch and trade marks marketed by Bosch)

4.2.0 Warranty is basically processed by RG/BG in the scope of lump-sum payment.

4.2.0.1 Battery- fair dealing

A good will ratio of 2% is taken into consideration in the battery-lump sum payment; no isolated case reimbursement is done by AA/SEC3. Regulation of isolated case is done only by BG.

4.2.0.2 Transportation of batteries with warranty

The return of goods is to be executed after prior approval from the people responsible for region and for the following reasons:

- Request by VB-TH10
- unsealed batteries with consequential damages
- exploded batteries with consequential damages

Return of goods with BWS Online warranty report and delivery note 1 987 742 849 to:

VB Autobatterie GmbH
Department: VB-TH 10
Am Leineufer
30419 Hannover

Note: Batteries are hazardous material and must be transported only via BG
4.2.0.3 Manufacturing code of Bosch batteries

- Batteries from VB production

13 digit manufacturing code is engraved on the cover (not on the label)

1.-3. digit: Plant code
4. digits: Year of manufacturing
5. and 6 digits: Month of manufacturing
7. up to 13 digits not relevant.

Example: Manufacturing code Bosch batteries

( WSZ ) ( FD ) (not relevant)
G3B 581 25 1 0254
YOT 581 25 1 0254 (Motorcycle batteries)

- Gel- batteries

13 digit manufacturing code is hot-engraved on the cover (not on the label)

1-3 digits: always D00
4 digits: Year of manufacturing
5. and 6 digits: Month of manufacturing
7. to 13 digit not relevant.

Example: Manufacturing code Bosch Gel batteries

( WSZ ) ( FD ) (not relevant)
D00 581 25 1 0254
4.3 Diesel equipment

4.3.0 General

In-line fuel injection pumps and distributor-type injection pumps (also BX pumps) are to be basically repaired in warranty case. If repair is not possible in distributor-type injection pumps (e.g. uneconomical, missing replacement parts), then one has to revert to BX replacement part or new goods after consultation with AA.

Completely replaced EP, CR, UI, UP systems are to be immediately dispatched to DS with BWS Online warranty report and delivery note 1 987 742 849. Exceptions are made known as per separate warranty information.

4.3.1 Injection nozzles

The after-sales service manual "Maintenance and testing of nozzle-holder assembly (SIS-W 400/016-D1)"
is to be strictly observed for testing of injection-nozzles.

It is especially important that the nozzles are cleaned before testing in "ultrasonic bath". From technical point of view, it is very unlikely that all nozzles of an engine fail at the same time during the warranty period.
A prophylactic replacement of all nozzles of an engine (set) is not permissible in case of warranty maintenance. Should the complete assembly still be replaced, then the nozzles must be sent to the plant for investigation.
The fact that, in case of rejection by plant, a warranty claim is not applicable and exchange of nozzle is subject to charges, should be pointed to the customer.

The cleaned nozzles must not be dismantled. Completely dismantled sets of nozzles that are returned to the factory are sent back without checking and the warranty claim is turned down.

In case of the complaint on “Knocking”, also pay attention to the service information "Combustion noise of passenger car-diesel engines" (SIS-FZD-025-D20) and let the complaining customer get a clarification from your customer service representative if necessary.
4.4 AA-customer service tools (KDWZ)

For AA customer service tools, processing of warranty takes place basically as for other AA commercial products.

Prerequisite for such processing is however the availability of ten-digit order number (0 986 6....).
The products, which still carry alphanumeric type designation in exceptional cases, (e.g. KDEP 2900) are to be decoded.

For a series of KDWZ, there however exists a basic obligation for returning. These KDWZ are listed in the following page. They are to be reported with BWS Online and to be sent to AA/LOG-KA2 with BWS Online warranty report and delivery note 1 987 742 849.
Attachment to chapter 4.4

**Obligation for returning of AA-customer service tools (KDWZ)**

<table>
<thead>
<tr>
<th>Labeling</th>
<th>Order number</th>
<th>(Order number old)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel-start of fuel delivery-adjustment device completely with set of connector parts</td>
<td>0 986 610 060</td>
<td>KDEP-K200</td>
</tr>
<tr>
<td>Diesel-start of fuel delivery-adjustment device</td>
<td>0 986 610 040</td>
<td>KDEP-K200</td>
</tr>
<tr>
<td>Testing device for travel sensor systems (EDC in-line fuel injection pumps)</td>
<td>0 986 610 101</td>
<td>KDEP-P 400/1</td>
</tr>
<tr>
<td>Universal test leads for travel sensor systems (EDC in-line fuel injection pumps)</td>
<td>0 986 610 102</td>
<td>KDEP-P 400/2</td>
</tr>
<tr>
<td>System test adapter</td>
<td>0 986 610 200</td>
<td></td>
</tr>
<tr>
<td>System test adapter</td>
<td>0 986 610 201</td>
<td></td>
</tr>
<tr>
<td>System test adapter</td>
<td>0 986 610 250</td>
<td></td>
</tr>
<tr>
<td>Transducer</td>
<td>0 986 612 157</td>
<td>KDEP 1600</td>
</tr>
<tr>
<td>Transducer</td>
<td>0 986 612 174</td>
<td>KDEP 1601</td>
</tr>
<tr>
<td>Valve testing device</td>
<td>0 986 615 330</td>
<td>KDJE-P 400</td>
</tr>
<tr>
<td>Screwing device</td>
<td>0 986 610 130</td>
<td></td>
</tr>
</tbody>
</table>
4.5 Products with overall warranty indemnification

Such products cannot be submitted via BWS Online- individual case procedure for warranty claim.

The warranty claim is compensated here immediately either with the help of purchase conditions or by credit note of fixed percentage on the purchase value based on respectively fixed time schedules (e.g. monthly, half yearly).

Disassembly and assembly costs as well as testing costs are included in the lump sum. This regulation includes the following depending on the region:

- Starter,- drive- and lighting batteries
- Trickle charger
- Incandescent lamps

4.6 Not released products (sales sample)

These are installed in general in testing- or pre-production series vehicle for field testing and they start with A or B.

They are excluded from AA warranty processing.

The warranty must be processed by the respective original equipment manufacturer or his contractual organization.
6. Abbreviations

Abbreviations for terms used in warranty manual
The text in this manual contains abbreviations for certain frequently used terms. These abbreviations have the following meanings:

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Automotive Aftermarket</td>
</tr>
<tr>
<td>ABS</td>
<td>Antilock brake system</td>
</tr>
<tr>
<td>AL</td>
<td>Starter</td>
</tr>
<tr>
<td>A + E</td>
<td>Removal + installation</td>
</tr>
<tr>
<td>AA-PR</td>
<td>Testing Technology business unit</td>
</tr>
<tr>
<td>AK</td>
<td>Work card</td>
</tr>
<tr>
<td>AW</td>
<td>Work value</td>
</tr>
<tr>
<td>BS</td>
<td>Bosch Service</td>
</tr>
<tr>
<td>BDC</td>
<td>Bosch Diesel Centre</td>
</tr>
<tr>
<td>BG</td>
<td>Bosch contracted wholesaler</td>
</tr>
<tr>
<td>BGB</td>
<td>Civil legal code</td>
</tr>
<tr>
<td>BS</td>
<td>Service hours</td>
</tr>
<tr>
<td>BWS</td>
<td>Bosch Warranty System</td>
</tr>
<tr>
<td>CM</td>
<td>Car Multimedia</td>
</tr>
<tr>
<td>CR</td>
<td>Common Rail</td>
</tr>
<tr>
<td>BX</td>
<td>Bosch eXchange (plant replacement programme)</td>
</tr>
<tr>
<td>DAT</td>
<td>Deutsche Automobil Treuhand – German Automotive Trust</td>
</tr>
<tr>
<td>DC</td>
<td>Daimler Chrysler</td>
</tr>
<tr>
<td>DFÜ</td>
<td>Data transmission</td>
</tr>
<tr>
<td>EA</td>
<td>Original equipment manufacturer (vehicle and engine manufacturer)</td>
</tr>
<tr>
<td>EDV-SL</td>
<td>EDV code</td>
</tr>
<tr>
<td>EKP</td>
<td>Electric fuel pump</td>
</tr>
<tr>
<td>EP</td>
<td>Fuel injection pump</td>
</tr>
<tr>
<td>ESI</td>
<td>Electronic Service Information</td>
</tr>
<tr>
<td>ESP</td>
<td>Electronic stability programme</td>
</tr>
<tr>
<td>ET</td>
<td>Spare part</td>
</tr>
<tr>
<td>EZ</td>
<td>Product</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>FC</td>
<td>Fault code (see rear of G10 document)</td>
</tr>
<tr>
<td>FD</td>
<td>Date of manufacture</td>
</tr>
<tr>
<td>FMSL</td>
<td>Vehicle and engine code</td>
</tr>
<tr>
<td>FN</td>
<td>Fault no.</td>
</tr>
<tr>
<td>FSW</td>
<td>Field observation and warranty</td>
</tr>
<tr>
<td>GA</td>
<td>Warranty type</td>
</tr>
<tr>
<td>GB</td>
<td>Division</td>
</tr>
<tr>
<td>GBS</td>
<td>Warranty assessment office</td>
</tr>
<tr>
<td>GM</td>
<td>Warranty report</td>
</tr>
<tr>
<td>GVA</td>
<td>Gesamtverband Autoteile- Handel e.V. – General Association Vehicle Parts - Trade</td>
</tr>
<tr>
<td>GS</td>
<td>Warranty processor</td>
</tr>
<tr>
<td>G15</td>
<td>International correction document</td>
</tr>
<tr>
<td>G21</td>
<td>International warranty and goodwill application</td>
</tr>
<tr>
<td>KD</td>
<td>Customer service</td>
</tr>
<tr>
<td>KD no.</td>
<td>Customer number</td>
</tr>
<tr>
<td>KDST</td>
<td>Service centre</td>
</tr>
<tr>
<td>KDWZ</td>
<td>Customer service tool</td>
</tr>
<tr>
<td>Li</td>
<td>Alternator</td>
</tr>
<tr>
<td>LOG</td>
<td>Logistics distribution centre</td>
</tr>
<tr>
<td>LS</td>
<td>Delivery note</td>
</tr>
<tr>
<td>NAM</td>
<td>New distributor type (e.g. supermarkets, department stores)</td>
</tr>
<tr>
<td>PDE</td>
<td>Unit injector system</td>
</tr>
<tr>
<td>Prod.Haft.G.</td>
<td>Product liability law</td>
</tr>
<tr>
<td>QAS</td>
<td>Quality assurance in division</td>
</tr>
<tr>
<td>QSG</td>
<td>Quality assurance in plant</td>
</tr>
<tr>
<td>QMM</td>
<td>Quality assurance and methods</td>
</tr>
<tr>
<td>RB</td>
<td>General term for &quot;Bosch&quot;</td>
</tr>
<tr>
<td>RG</td>
<td>Regional company</td>
</tr>
<tr>
<td>RPN</td>
<td>Repair code</td>
</tr>
<tr>
<td>SIS</td>
<td>Series repair</td>
</tr>
<tr>
<td>TTNR</td>
<td>Type part number (order number)</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>U BK</td>
<td>Automotive Technology business sector</td>
</tr>
<tr>
<td>UI</td>
<td>Unit injector</td>
</tr>
<tr>
<td>UP</td>
<td>Unit pump</td>
</tr>
<tr>
<td>VB</td>
<td>Varta Bosch Autobatterie GmbH</td>
</tr>
<tr>
<td>VH</td>
<td>Sales agent</td>
</tr>
<tr>
<td>WSZ</td>
<td>Plant code number</td>
</tr>
<tr>
<td>ZDK</td>
<td>German Confederation of Motor Trades and Repairs</td>
</tr>
<tr>
<td>ZV</td>
<td>Ignition distributor</td>
</tr>
</tbody>
</table>
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E.g.

ROBERT BOSCH GMBH

Terms and Conditions of Delivery
Automotive Aftermarket Division (AA)

For use in legal transactions with entrepreneurs, public law legal entities and public law special funds.

1. General Provisions:

1.1 Only the following Terms and Conditions shall govern our deliveries. Terms and conditions opposing or deviating from our Terms and Conditions shall not apply unless we have expressly approved the application thereof. The following conditions shall also apply if notwithstanding our knowledge of terms and conditions of the customer opposing or deviating from our Terms and Conditions, we unconditionally perform delivery to the customer.

1.2 Oral agreements before or at the time when the contract was concluded shall require written confirmation by us to be effective.

1.3 If the customer fails to accept our quotation within two weeks of receipt thereof, we shall be entitled to cancel.

1.4 Cost estimates are not binding and subject to change except as otherwise expressly agreed.

1.5 Our previous Terms and Conditions are hereby replaced by these Terms and Conditions. These Terms and Conditions shall also govern all future deliveries to the customer.

2. Prices:

2.1 Invoices shall be calculated on the basis of the list prices in effect on the date of delivery plus value-added tax. Value-added tax will not be charged only in those cases where the conditions have been met for exempt shipments to be exempted from such tax.

2.2 In the absence of any special agreement, prices shall be deemed to be "ex works" (Incoterms 2000) excluding packaging.

2.3 Products which have been repaired shall be shipped against a reasonable flat rate charge for shipping and packaging plus the charge for the service rendered by us, except where this is covered by liability for defects.

3. Delivery, Delivery Date, Default:

3.1 The precondition for the commencement of and compliance with delivery dates agreed upon is that the collaboration duties shall have been performed by the customer, in particular the timely delivery of the entire material, documentation, approvals, examinations and clearances to be provided by the customer and the compliance with payment terms agreed upon. If these conditions are not met in good time, the delivery dates shall be reasonably extended; this shall not apply if the supplier is solely responsible for the delay.

3.2 If non-compliance with the delivery date is due to force majeure or to other disturbances beyond our control e.g. war, terrorist attacks, import or export restrictive, labour disputes, including such disturbances affecting subcontractors, the delivery dates agreed upon shall be extended appropriately.

3.3 If we are in default with our delivery, the customer shall declare upon our request and within a reasonable period of time whether it will rescind the contract on account of the delayed delivery and/or whether the customer is claiming damages instead of performance or whether it insists upon performance of delivery.

3.4 The customer shall only be entitled to rescind the contract within the limits imposed by law insofar as the supplier is responsible for the delay.

3.5 Part shipments and corresponding invoices are admissible unless this is an unreasonable hardship for the customer.

4. Transfer of Risk:

4.1 Delivery is effected ex works (Incoterms 2000) except as expressly otherwise agreed.

4.2 At the customer’s request and cost we shall insure shipments against customary transport risks.

5. Complaint and Notification of Defects:

5.1 The customer must notify us in writing immediately, no later than 15 days after receipt of the goods, of any recognizable defects. Adhesive labels on the boxes, labels showing the contents and the control slips enclosed with the shipment shall be submitted to us together with the notification of the defect. Any other defects must be notified by the customer in writing immediately after discovery thereof. The date of receipt by us of notification of a defect shall determine whether or not notification is in good time.

5.2 If the notification of a defect is unjustified we shall be entitled to demand compensation from the customer for any expenses we have incurred.

5.3 Claims on account of defects shall be excluded if the notification of the defect is not received in good time.

6. Taking Delivery:

The customer may not refuse to take delivery on account of minor defects.

7. Defects/Defects of Title:

7.1 Claims on account of defects shall become time-barred after a period of 12 months. The foregoing provision shall not apply insofar as longer time bar periods are prescribed by statutes pursuant to Section 479 para 1 (claim to recourse) German Civil Code (BGB).

7.2 The time bar period for defect notices shall follow:

(a) on the date on which the product is put into use, i.e. of upon installation
(b) in all other cases upon delivery of the product to ultimate buyer.

7.3 If a defect arises during the time bar period the cause of which already existed on the date of transfer of risk, we may effect subsequent performance as our discretion either by remedying the defect or delivering a defect-free product.

7.4 The time bar does not start to run again as a result of the subsequent performance.

7.5 If subsequent performance should be abortive, the customer may – without prejudice to any claims to damages – rescind the contract or reduce the amount of payment.

7.6 Claims by the customer on account of expenses incurred for the purpose of subsequent performance, in particular costs of transport, transportation, labour and materials, shall be excluded insofar as such expenses are increased due to the fact that the product delivered was subsequently taken to a place other than the branch operation of the customer unless such removal is in accordance with the designated use of the product.

7.7 Claims on account of defects do not exist in case of merely inconsiderable deviation from the quality agreed upon or in case of only minor impairment to the use of the product.

7.8 The following are not deemed to be defects:

(a) ordinary wear and tear;
(b) characteristics of the product and damage caused after the date of transfer of risk due to improper handling, storage or erection, non-compliance with installation or handling regulations or to excessive strain or use