

**THE COMPLETE SPRINTER  
FAULT CODE GUIDE  
VOLUME 1: 2000-2006**

**ERIC J ORD**

**NORTH AMERICAN EDITION**

*THE COMPLETE SPRINTER  
FAULT CODE GUIDE*

*NORTH AMERICAN EDITION*

*VOLUME 1: 2000-2006 SPRINTER MODELS*

*DODGE AND FREIGHTLINER 2500/3500*

*MERCEDES-BENZ 316CDI/416CDI*

*ERIC J ORD*

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***Questo libro è dedicato alla memoria di Rino. Mio fratello nello spirito.***

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## SPRINTER INTRODUCTION

## What is a Sprinter?

The Sprinter vehicle from Daimler AG is the world's most popular and widely sold transporter in its class. Production of the Mercedes-Benz Sprinter started in 1994, and has continued to today, with sales still strong in all major world markets.

Branding is determined by intended market, so the vehicle body may have Mercedes-Benz, Freightliner, Dodge, or even Volkswagen brand logos on the body:

### Mercedes-Benz Sprinters:



### Freightliner Sprinters:



### Dodge Sprinters:



### Volkswagen LT or Crafter:



Not covered in this book

They may have different grills, but with the exception of the Volkswagen LT/Crafter, they are all the same under the skin. The VW version is not covered by this book due to the substantial differences in components.

## First things first...

With most US domestic vans and medium duty trucks, the level of connectivity (and complication) is minimal compared to a Sprinter. Love it or hate it, the Sprinter has gone through a rough road but is here to stay.

- 1) The Sprinter is 100% Mercedes-Benz. It is not a Dodge/Freightliner chassis with a Mercedes engine. You can't get it with a 'Hemi.
- 2) It is not an 'a la carte' vehicle that has components picked from multiple suppliers like many domestic trucks. It is all Mercedes components that have been designed to work together at the factory. As an example, you can't order a Sprinter with an Allison transmission.
- 3) The Sprinter was built (*READ ALOUD IN YOUR THICKEST GERMAN ACCENT*) the "**German way**", and does not fit together or diagnose like a Dodge, an Isuzu, a Cummins, or a Ford.
- 4) Mercedes vehicles log a lot of fault codes and event codes for most operational faults. Being able to read and understanding fault codes on all control units is vital to diagnose and repair drivability or operational problems.

## How to read this Fault Code Guide:

Fault code tables are organized in numerical order. The numbering system used is not OBD2 standard, but is based on Daimler's proprietary (manufacturer specific code) numerical system. If the numbering differs between Daimler and Chrysler's standards, both numbers are listed. Fault Code tables are organized into:

**Fault Codes:** Fault codes are standard 1-6 characters, and may be alphanumeric. In OBD2 (EOBD) standards, P is for Powertrain, U is for network, C is for chassis, and B is for body. Daimler uses this standard for some control units, and not for others, and there is no consistency with OBD2. This book is written to the latest Daimler standards, so this may differ from Dodge training and literature significantly. For the 2007-2010 Sprinter, most fault codes do not follow OBD standards.

And, if applicable:

**Sub Faults:** Daimler uses Sub-Fault numbers as a means to differentiate between different possible causes for a main fault code. These sub faults may be read with the original Mercedes diagnostic tool, as well as some aftermarket systems. If your scan tool cannot show sub fault numbers, it is probably time to shop for another diagnostic solution, as sub faults save a tremendous amount of time when troubleshooting problems.

**Event Codes:** (If applicable). Event codes are CAN-Bus related codes. Event codes are important to understand because most control units are connected over CAN-Bus. When a signal is missing, out of range, or there is an interruption in CAN network communication, an Event code is set.

**Software Error Codes:** (If applicable). These are special codes that relate only to 2007 and later models, but may also appear in 2004-2006 Sprinters that have the newest EGS [TCM] control unit software. Software Error Codes are generated when an error in the control unit operating software occurs. This may be due to incompatible parts, a fault in the memory, or may indicate that a flash to a newer software version is necessary.

**Tables:** Tables are organized in three or four columns, depending on the control unit.

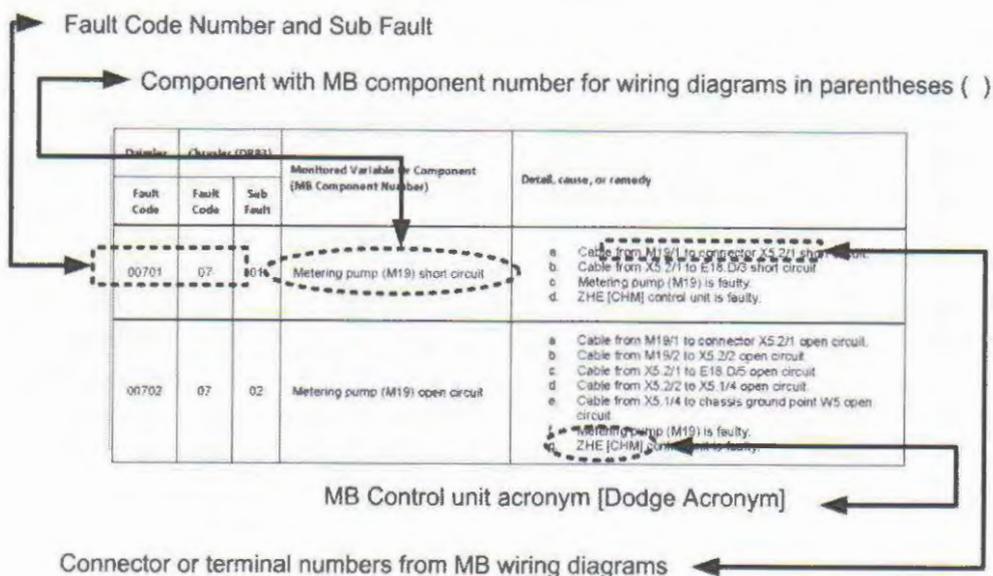
**Column 1:** Daimler Fault Code Number and Sub Fault

**Column 2:** Chrysler/Dodge Fault Code Number and Sub Fault for the DRB3 or Chrysler StarScan/StarMobile/WiTech (if applicable)

**Column 3:** Monitored Variable or Component. This is a plain English description of the signal or component that is the base cause of the fault code. The Mercedes-Benz component numbers, from Daimler service literature and wiring diagrams, are shown in parentheses ( ). Mercedes-Benz acronyms are used to describe any control units, with Chrysler/Dodge acronyms in brackets [ ] next to the Mercedes acronym.

**Column 4:** Detail, cause, or remedy. This is some basic troubleshooting information. This information is based on years of experience with Sprinter, but it is best to use it as a guideline only and refer to the most current Daimler service bulletins and repair documentation for current remedies. The Daimler component, terminal, fuse, and circuit descriptions are used to describe any tests or checks that must be undertaken as part of the troubleshooting process.

**Example:**



**Acronyms:** On the bottom of each odd numbered page is a table of acronyms (abbreviations and names) used for the control units in the vehicle. It is organized in both Daimler/Mercedes/Freightliner and Chrysler/Dodge format. The Daimler acronyms are used as the primary identifier for this fault code guide as Daimler is continuing in the Sprinter business. Dodge acronyms are also used, but will probably be less prominent over time.

Here is the Daimler to Dodge acronym list:

Daimler	Dodge	Description
AB	ACM	Airbag
ABS	CAB	Anti-lock Brake System
ABW	ACM	Airbag with Window Airbag
APS	N/A	Navigation System (MB Only)*
ARS	N/A	All-Wheel Drive (MB Only)*
BA (RFH)	RFH	Backup Assist (Factory Version)
CDI/CR	ECM	Common Rail Diesel Injection
EDW2	SSM	Anti-Theft Alarm System
EGS	TCM	Automatic Transmission Control
ESP	CAB	Traction Control (2004-2006 316CDI/2500 Models only)
EWM	SLA	Gear Shift Lever Control Unit
HZR	ATC	Heating/Air Conditioning Control Unit
KI	IC	Instrument Cluster
RD	RADIO	Radio (Factory Installed Radios Only)
WSP	SKREEM	Immobilizer System
ZHE	CHM	Auxiliary Heater
ZUH	HBM	Auxiliary Heater Booster
ZV	CTM	Central Locking

\*Not Applicable to USA Models

Here is an application matrix for coverage of the various control units in Daimler and Dodge vehicles:

SYSTEM Daimler (Dodge)	DESCRIPTION	Mercedes-Benz Chassis					Dodge/ Freightliner Model	
		901	902	903 690.6	904 690.6	905	2500	3500
AB/ABW (ACM)	Airbag/Airbag with Window Airbag System	✓	✓	✓	✓	✓	✓	✓
ABS/ASR (CAB)	Anti-Lock Brake System	✓	✓	✓	✓	✓	✓	✓
APS*	Auto-Pilot System (Navigation)*	✓	✓	✓	✓	✓	N/A	N/A
ARS*	All-Wheel Drive*	N/A	N/A	✓	✓	✓	N/A	N/A
ATA/EDW (SSM)	Alarm and security systems	✓	✓	✓	✓	✓	✓	✓
CDI (ECM) CR2/CR3	Common Rail Diesel Injection (Engine OM611*/612/647)	✓	✓	✓	✓	✓	✓	✓
EGS (TCM)	Automatic Transmission	N/A	N/A	✓	✓	✓	✓	✓
EWM (SLA)	Gear Shift Lever	N/A	N/A	✓	✓	✓	✓	✓
ESP (CAB)	Electronic Stability Program (>2004)	✓	✓	✓	N/A	N/A	✓	N/A
HZR (ATC)	Heater and Air Conditioning	✓	✓	✓	✓	✓	✓	✓
IC	Instrument Cluster	✓	✓	✓	✓	✓	✓	✓
ME*	Gasoline Engine Management M111.984*	✓	✓	✓	✓	N/A	N/A	N/A
SSG*	Sprint Shift Manual Transmission*	✓	✓	✓	✓	N/A	N/A	N/A
WSP (SKREEM)	Immobilizer	✓	✓	✓	✓	✓	✓	✓
ZHE(CHM)	Auxiliary Heater	✓	✓	✓	✓	✓	✓	✓
ZUH (HBM)	Auxiliary Heater Booster	✓	✓	✓	✓	✓	✓	✓
ZV (CTM)	Central Locking	✓	✓	✓	✓	✓	✓	✓

\*Not covered in the North American Edition of this book

**Notes:**

For Mercedes-Benz Chassis 903.6, only model 316CDI is covered in the North American Edition of this book.  
For Mercedes-Benz Chassis 904.6, only model 416CDI is covered in the North American Edition of this book.

- ✓ Applicable to this Chassis/Model
- N/A Not Applicable to this model or chassis

## About the North American Edition:

This edition is focused on North American (NAFTA) Sprinter models from Dodge/Freightliner/Mercedes-Benz for the US, Canada, and Mexico. It does not include Fault Code tables for control units that are not applicable to the NAFTA market. For those of you in Mexico and Canada, you can disregard the Dodge related information, unless you are using Dodge service manuals. For US trained techs, Dodge and Freightliner/Mercedes information is relevant depending on your training and which service literature you use. If you are outside of the NAFTA zone and need a worldwide edition, see the companion book, ***The Complete Sprinter Fault Code Guide, World Edition***, which will be published in 3<sup>rd</sup> quarter of 2010.

## Mercedes-Benz German-English to American-English Translation:

For the US market, as of January 1, 2010, Mercedes-Benz USA is now the distributor for Sprinter. Dodge dealers are gradually leaving the Sprinter service and parts businesses as the original Chrysler warranties expire. As the future is (as of the publishing date of this book) uncertain as to the extent of the changes with Mercedes-Benz USA literature, parts structure, or other after-sales service elements, this book uses the international Daimler AG acronyms and other identifying representations.

If you have benefitted from Dodge training, the new acronyms may be unfamiliar, but don't worry. The Dodge acronyms are also listed and if there is a different fault code number for Dodge, it is listed as well.

It is well known that Mercedes-Benz literature has its own language and vocabulary. If you have no experience with it, some of the acronyms and component information may seem odd; but in the original German it makes perfect sense! The saying, "lost in translation", is fitting for Mercedes-Benz literature. In this book, the author has taken the original German and translated into an "Americanized" English version that is practical and easy to use.

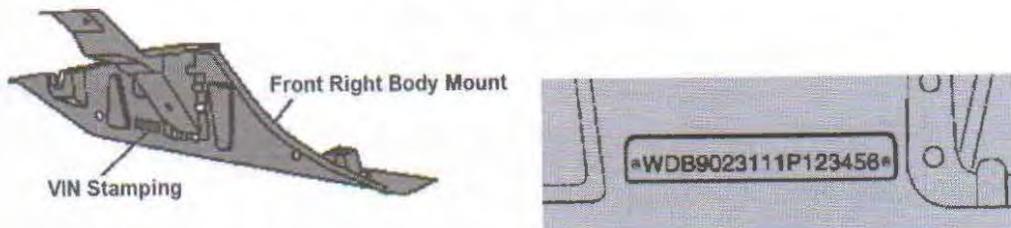
The Complete Sprinter Fault Code Guide -- Vehicle Identification Numbers  
VIN Information is provided for all Sprinter models from 2000-2010

## VEHICLE IDENTIFICATION NUMBERS

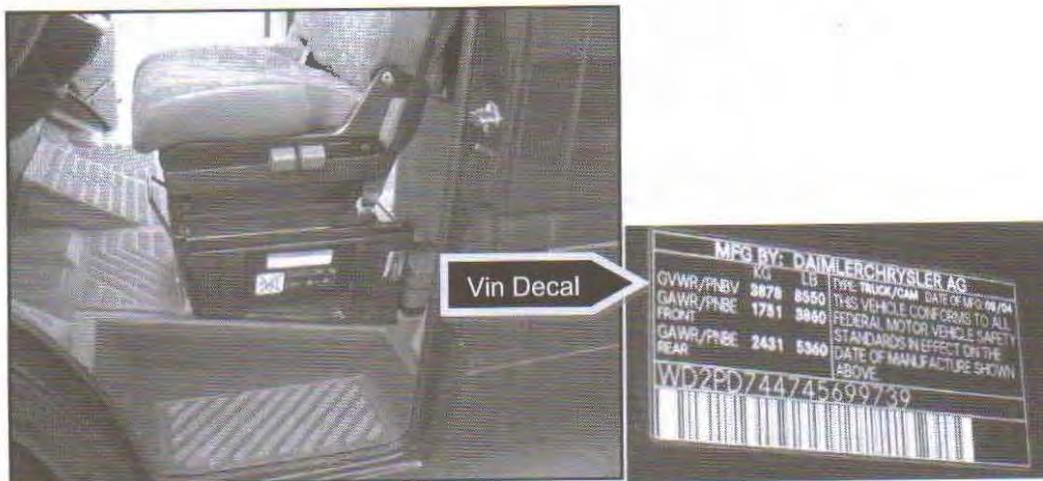
## VIN Location and Information on Sprinter Version:

### Mercedes-Benz Versions:

The location of the VIN is determined by local laws and regulations. On all versions, the VIN is, at minimum, stamped on the right body mounting bracket.



For most national versions, there is also a VIN decal on the driver's (left side) seat base:



This example is a USA model. The VIN decal format is similar for other versions depending on national laws.

## Overview of Mercedes-Benz Sprinter Series:

The Mercedes-Benz Sprinter series covered in this book are defined as chassis 901.6, 902.6, 903.6, 904.6, and 905.6. These series numbers are determined by the combination of the type of vehicle, wheelbase, and payload. For North America, only 903.6 and 904.6 series are available through Mercedes-Benz Canada or Mercedes-Benz Mexico and are the same as Dodge/Freightliner 2500/3500:

	Dimensions		Payload Capacity (EU Norms)				
	Wheelbase	Interior Height	2590 kg	2800 kg	3500 <sup>1</sup> kg	4600 <sup>2</sup> kg	5990 kg
Cab & Chassis	3,000 mm		901.611	902.611	903.611		
	3,550 mm		901.612	902.612	903.612	904.612	905.612
	4,025 mm				903.613	904.613	905.613
Crew-Cab (DOKA)	3,000 mm		901.621	902.621	903.621		
	3,550 mm			902.622	903.622	904.622	905.622
	4,025 mm				903.623	904.623	905.623
Panel Van	3,000 mm	1,633 mm	901.661	902.661	903.661		
	3,550 mm	1,633 mm	901.612	902.662	903.662	904.662	
	4,025 mm	1,855 mm			903.663	904.663	
MPV (Mini-Bus)	3,000 mm	1,633 mm	901.671	902.671	903.671		
	3,550 mm	1,633 mm		902.672	903.672		
	4,025 mm	1,855 mm			903.673		

## Model Chart by Engine and Payload:

Engine Code:	Engine	Engine Type	Output kW	Model designation by Payload Weight (EU Norms)				
				2590 kg	2800 kg	3500 <sup>1</sup> kg	4600 <sup>2</sup> kg	5990 kg
MQ3 <sup>3</sup>	OM611 DE22LA	I-4	60	208 CDI	208 CDI	308 CDI	408 CDI	
MQ4 <sup>3</sup>	OM611 DE22LA	I-4	80	211 CDI	211 CDI	311 CDI	411 CDI	
MQ5 <sup>3</sup>	OM611 DE22LA	I-4	95	213 CDI	213 CDI	313 CDI	413 CDI	
MQ6	OM612 DE27LA	I-5	115		216 CDI	316 CDI	416 CDI	616 CDI
MC0 <sup>4</sup>	OM647 DE27LA	I-5	115			316 CDI	416 CDI	
MR8 <sup>5</sup>	M111 E23	I-4	105	214	214	314	414	

### Application Notes:

1. 3880 kg for Mexico
2. 4530 kg for Mexico
3. Not available in Canada
4. Only available in North America (Country Code= ZU7 Canada and Country Code= ZU9 Mexico)
5. Not available in North America (Canada/Mexico Mercedes-Benz Sprinter)

## **Mercedes-Benz Chassis and Model Version:**

### **First Generation:**

**Chassis:** 901.0/3/4, 902.0/3/4, 903.0/3/4, 904.0/3/4, 905.0/3/4

**Models Designations:** 208D, 210D, 212D, 214  
303D, 310D, 312D, 314  
408D, 410D, 412D, 414

**Production Dates:** 1994 – 2000

**Markets Sold:** Worldwide Version (Except USA / Canada / Mexico)

**Diagnosis Socket:** 14-Pin (Diesel), or  
16-Pin OBD2 (Gasoline M111.981)

While this first generation of Sprinters was never officially available in North America, there are some gray import versions found in Mexico.

### **Second Generation:**

**Chassis Series:** 901.6, 902.6, 903.6, 904.6, 905.6

**Model Designations:** 208 CDI, 211 CDI, 213 CDI, 216 CDI, 214  
308 CDI, 311 CDI, 313 CDI, 316 CDI, 314  
408 CDI, 411 CDI, 413 CDI, 416 CDI, 414, 616 CDI

**Production Dates:** 2000 – 2006

**Minor Model Changes:** 2000, 2002, 2004

**Markets Sold:** Worldwide Version (Except USA / Canada)

**VIN:** WDB90xxxxPxxxxxx (Up to 2000, Made in Germany)  
WDB90x6xxxRxxxxxx (From 2000, Made in Germany)  
WDF90x6xxxAxxxxxx (From 2000, Made in Argentina)

**Diagnosis Socket:** 14-Pin (Diesel), or  
16-Pin OBD2 (Gasoline M111.981), or  
16-Pin OBD2 (Diesel OM612 Mexico)

This version of Mercedes-Benz Sprinter is also sometimes called: T1N

**Chassis Series: 690.6**

**Model Designations: 311 CDI, 313 CDI  
411 CDI, 413 CDI**

**Production Dates: 2001 – 2006**

**Model Changes: 2001**

**Markets Sold: South American Market (SELIT) / MERCOSUR**

**VIN: 8AC90x6xxxAXxxxxx  
8AC6906xxxAXxxxxx (As of 2001)**

**Diagnosis Socket: 14-Pin (OM611 Diesel), or  
16-Pin OBD2 (Gasoline M111)**

### **Third Generation:**

**Chassis Series: 906**

**Model Designations: 209 CDI, 211 CDI, 213 CDI, 215 CDI, 218 CDI, 224  
309 CDI, 311 CDI, 313 CDI, 315 CDI, 318 CDI, 324  
411 CDI, 413 CDI, 415 CDI, 418 CDI, 424  
509 CDI, 511 CDI, 513 CDI, 515 CDI, 518 CDI, 524**

**Production Dates: 2006 – Current**

**Markets Sold: Worldwide Version (Except USA and Canada)**

**VIN: WDx906xxxxxxxxxxx**

**Diagnosis Socket: 16-Pin OBD2 (All Versions)**

**This version of Mercedes-Benz Sprinter is also sometimes called: NCV3**

## Mercedes-Benz Version VIN: 1996-2006

**Note:** VIN on body decal location may vary due to local regulations

VIN Position	Description	Code Description
1-3	Manufacturer	WDB = Daimler-Benz AG WDF = Daimler-Benz Argentina 8AC = Daimler-Benz Argentina
4-6	Vehicle Series and Payload	901 = 2590 kg 902 = 2800 kg 903 = 3500 kg 904 = 4600 kg 905 = 5990 kg 690 = South American Version
7	Engine	0 = M111.979 3 = OM601.943 4 = OM602.980 6 = OM611.981/983/987 6 = OM612.981 6 = OM647.981 (Canada/Mexico Only) 6 = M111.980
8	Configuration	1 = Platform 2 = Crew-cab (DOKA) 6 = Panel Van 7 = Crew-bus
9	Wheelbase	1 = 3000 mm 2 = 3550 mm 3 = 4025 mm
10	Steering and Delivery (Version for EU Regulations)  Or  Model Year (Depending on local regulations)	1 = LHD 2 = RHD 3 = LHD (CKD) 4 = RHD (CKD)  W = 1998 X = 1999 Y = 2000 1 = 2001 2 = 2002 3 = 2003 4 = 2004 5 = 2005
11	Assembly Plant	A = Buenos Aires, Argentina P = Düsseldorf, Germany (up to 2000) R = Düsseldorf, Germany (from 2000) S = Düsseldorf, Germany
12 - 17	Serial Number	Serialized production number

**NOTE:** These VIN charts do not apply to US or Canadian models. US and Canadian models use the Dodge/Freightliner VIN charts. Even though Sprinters are sold through MB Canada dealers, they have a US format VIN.

## Mercedes-Benz Version VIN: 2006 to Current

Not applicable to USA and Canada. This chart applies to versions for Mexico.

VIN Position	Description	Code Description
1-3	Manufacturer	WDB = Daimler AG WDF = Mercedes-Benz S.A. Argentina 8AC = Mercedes-Benz S.A. Argentina
4-6	Vehicle Series	906
7	Configuration	1 = Platform Truck 2 = Crew-cab (DOKA) 6 = Panel Van 7 = Crew-bus
8	Payload Weight	1 = 3000 kg 3 = 3500 kg 5 = 4600 kg / 5000 kg
9	Wheelbase	1 = 3250 mm 3 = 3665 mm 5 = 4325 mm 7 = 4325 mm with extended overhang
10	Steering and Delivery (Version for EU Regulations)  Or  Model Year (Depending on local regulations)	1 = LHD 2 = RHD 3 = LHD (CKD) 4 = RHD (CKD)  6 = 2006 7 = 2007 8 = 2008 9 = 2009 0 = 2010
11	Assembly Plant	A = Buenos Aires, Argentina S = Düsseldorf, Germany
12 - 17	Serial Number	Serialized production number

### Sprinter Engine Codes:

Engine Code:	Engine	Engine Type	Output		Model designation by Gross Vehicle Weight			
			kW	bhp	3000 kg	3500 kg	4600 kg	5000 kg
MC1	OM646 DE 22 LA	I-4	65	88	209 CDI	309 CDI		509 CDI
MC2	OM646 DE 22 LA	I-4	80	109	211 CDI	311 CDI	411 CDI	511 CDI
MC3	OM646 DE 22 LA	I-4	110	150	215 CDI	315 CDI	415 CDI	515 CDI
MC4	OM642 DE 30 LA	V6	135	184	218 CDI	318 CDI	418 CDI	518 CDI
MC9	M272 E35	V6	180	245	224	324	424	524
MR2	OM646 DE 30 LA	I-4	95	129	213 CDI	313 CDI	413 CDI	513 CDI

## Overview of Dodge and Freightliner Sprinter Series:

The Dodge and Freightliner Sprinter series covered in this book are defined by the VIN codes WD, XD, YD, PD, BD, etc. The models in the series are only tow: 2500 and 3500. The engine variants are also two: OM612 (Model years 2002-2003) and OM647 (Model years 2004-2006). All versions only had an automatic transmission as well.

These series numbers are determined by the combination of the type of vehicle, wheelbase, and payload. For the US, specifications are listed in American Standard (SAE) figures (in. = inches, lb. = pounds):

	Dimensions		Model by Payload Capacity and Wheelbase	
	Wheelbase (With 15 in. Wheels)	Interior Height	8,550 lbs.	9,990 lbs. <sup>3</sup>
Cab & Chassis	118 in.		2500	
	140 in.		2500 <sup>1</sup>	3500
	158 in.		2500 <sup>2</sup>	3500
Panel Van	118 in.	93 in.	2500	
	140 in.	93 in.	2500 <sup>1</sup>	3500
	158 in.	104 in.	2500 <sup>2</sup>	3500
MPV (Mini-Bus)	118 in.	93 in.	2500	
	140 in.	93 in.	2500 <sup>1</sup>	
	158 in.	104 in.	2500 <sup>2</sup>	

1. Also listed in Dodge literature as having a wheelbase of 141 in., but this difference is due to 16 in. wheel and tire size only, and is not an actual deviation in chassis size or wheelbase.
2. Also listed in Dodge literature as having a wheelbase of 159 in., but this difference is due to 16 in. wheel and tire size only, and not an actual deviation in chassis size or wheelbase.
3. All 3500 chassis variants are delivered with 15 in. wheels, so there are no differences listed in wheelbase.

### Model Chart by Engine and Payload:

Engine Code:	Engine	Engine Type	Output SAE HP	Model designation by Payload Weight GVWR	
				8,550 lbs.	9,990 lbs.
41/43	OM612 DE27LA	I-5	154	2500	3500
42/44	OM647 DE27LA	I-5	154	2500	3500

## **Dodge and Freightliner Chassis and Model Version:**

### **First Generation:**

**Chassis Series:** YD, WD, XD, PD, BD

**Models:** 2500 C/HC/SHC  
3500 C/HC/SHC

**Markets Sold:** North America (USA / Canada / Mexico)

**Production Dates:** 2001 – 2006

**VIN :** WDxxDx41xxx5xxxxxx USA/Mexico  
WDxxDx41xxxRxxxxxx Canada

**Diagnosis Socket:** 16-Pin OBD2

**Mercedes-Benz equivalent:** Chassis Series 903.6, 904.6

### **Second Generation:**

**Chassis Series:** VB

**Models:** 2500 C/HC/SHC  
3500 C/HC/SHC

**Markets Sold:** North America (USA / Canada / Mexico)

**Production Dates:** 2006 – 2009

**VIN :** WxxxEx45xxxxxxxxxx 2500 Diesel  
WxxxEx46xxxxxxxxxx 2500 Gasoline  
WxxxFx45xxxxxxxxxx 3500 Diesel  
WxxxFx46xxxxxxxxxx 3500 Gasoline

**Diagnosis Socket:** 16-Pin OBD2

**Mercedes-Benz equivalent:** Chassis Series 906

## Freightliner/Dodge Version VIN: 2002-2006

**Note: USA/Canada/Mexico VIN also on body decal on driver's seat base.**

VIN Position	Description	Code Description																										
1	Country of Origin	W = Daimler-Benz AG (Germany)																										
2	Assembler	D = Sprinter Plant Düsseldorf, Germany																										
3	Vehicle Series	W = Dodge Van X = Dodge Incomplete 8 = Dodge MPV 0 = Dodge Wagon (Van) P = Freightliner Incomplete R = Freightliner MPV Y = Freightliner Van 1 = Sprinter Cab-Chassis 2 = Sprinter Truck 3 = Sprinter MPV 5 = Sprinter MPV (Cargo)																										
4	GVWR Passenger Safety Class	X = 4X2 Cab-Chassis W = 4X2 MPV Y = 4X2 Truck P = 4X2 US B = 4X2 Canada Regulation																										
5	Vehicle Line	D = Combine with position 6																										
6	Series	<table border="0"> <tr> <td><b>Model:</b></td> <td><b>Wheelbase:</b></td> </tr> <tr> <td>1 = 2500C/C2500/P2500</td> <td>3000 mm</td> </tr> <tr> <td>2 = 2500C/C2500/P2500</td> <td>3550 mm</td> </tr> <tr> <td>6 = 2500C/C2500/P2500</td> <td>3567 mm</td> </tr> <tr> <td>3 = 2500C/C2500/P2500</td> <td>4025 mm</td> </tr> <tr> <td>7 = 2500C/C2500/P2500</td> <td>4042 mm</td> </tr> <tr> <td>8 = 3500C</td> <td>3567 mm</td> </tr> <tr> <td>9 = 3500C</td> <td>4042 mm</td> </tr> <tr> <td>4 = 3500C/C3500</td> <td>3550 mm</td> </tr> <tr> <td>5 = 3500C/C3500</td> <td>4042 mm</td> </tr> <tr> <td>1 = C2500/P2500</td> <td>3000 mm</td> </tr> <tr> <td>4 = C3500</td> <td>3550 mm</td> </tr> <tr> <td>5 = C3500</td> <td>4025 mm</td> </tr> </table>	<b>Model:</b>	<b>Wheelbase:</b>	1 = 2500C/C2500/P2500	3000 mm	2 = 2500C/C2500/P2500	3550 mm	6 = 2500C/C2500/P2500	3567 mm	3 = 2500C/C2500/P2500	4025 mm	7 = 2500C/C2500/P2500	4042 mm	8 = 3500C	3567 mm	9 = 3500C	4042 mm	4 = 3500C/C3500	3550 mm	5 = 3500C/C3500	4042 mm	1 = C2500/P2500	3000 mm	4 = C3500	3550 mm	5 = C3500	4025 mm
<b>Model:</b>	<b>Wheelbase:</b>																											
1 = 2500C/C2500/P2500	3000 mm																											
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7 = 2500C/C2500/P2500	4042 mm																											
8 = 3500C	3567 mm																											
9 = 3500C	4042 mm																											
4 = 3500C/C3500	3550 mm																											
5 = 3500C/C3500	4042 mm																											
1 = C2500/P2500	3000 mm																											
4 = C3500	3550 mm																											
5 = C3500	4025 mm																											
7	Body Style	4 = Combine with position 8																										
8	Engine	3 = Diesel EPA (OM612) 2 = Diesel CARB (OM647) 4 = Diesel CARB (OM647 MY2005/06) 1 = Diesel (OM612 Canada/Mexico)																										
9	Check Digit	= Check Digit (Varies 0-9 or A-Z)																										
10	Model Year	2 = 2002 3 = 2003 4 = 2004 5 = 2005 6 = 2006																										
11	Intended Market	5 = USA R = Canada																										
12 - 17	Serial Number	Serialized production number																										

## Freightliner/Dodge Version VIN: 2007-2009

Note: USA/Canada/Mexico VIN also on body decal on driver's seat base.

VIN Position	Description	Code Description		
1	Country of Origin	W = Daimler AG (Germany)		
2	Assembler	D = Sprinter Plant Düsseldorf, Germany C = Sprinter Bus Plant Ludwigsfelde, Germany		
3	Vehicle Series	W = Dodge Van X = Dodge Incomplete (Cab-Chassis) 8 = Dodge MPV (Mini-Bus) 0 = Dodge Truck P = Freightliner Incomplete (Cab-Chassis) R = Freightliner MPV (Mini-Bus) Y = Freightliner Truck D = Freightliner Van		
4	GVWR Passenger Safety Class	P = 4X2 US B = 4X2 Canada Regulation		
5	Vehicle Line	E = Combine with position 6 (Class G 2500 models) F = Combine with position 6 (Class H / Class 3 3500 models)		
6	Series	Model:	Class:	Wheelbase:
		0 = C3500	H	3665 mm
		1 = C3500	H	4325 mm
		3 = C3500/3500C	3	3665 mm
		4 = C3500/3500C	3	4325 mm
		7 = C2500/2500C	G	3665 mm
		8 = C2500/2500C	G	4325 mm
7	Body Style	4 = Combine with position 8		
8	Engine	5 = Diesel (OM642) CARB (50 State Emissions USA) 6 = Gasoline (M272) CARB (50 State Emissions USA)		
9	Check Digit	= Check Digit (Varies 0-9 or A-Z)		
10	Model Year	7 = 2007 8 = 2008 9 = 2009		
11	Assembly Plant	5 = Düsseldorf Germany 9 = Ludwigsfelde, Germany		
12 - 17	Serial Number	Serialized production number		

## **Mercedes-Benz USA (MBUSA) and Mercedes-Benz Canada**

For the United States, as of January 1, 2010, Mercedes-Benz USA is the US distributor for Sprinter vehicles. Mercedes-Benz Canada also has become the only source of Sprinter in Canada, as Dodge versions are not longer sold. As with every other market in the world, local Mercedes-Benz dealers sell and service Sprinters, as well as provide parts. Apparently, Freightliner will still provide sales and support of Sprinters, but they will carry Mercedes branding.

It is interesting that Mercedes USA has kept the Dodge/Freightliner models and has not adopted its own model numbering.

### **MBUSA and MB Canada 2010 Models:**

**Chassis: 906**

**Models:       2500  
                  3500**

**Markets Sold: USA / Canada**

**Production Dates: 2010 – On**

**VIN : WxxxPExxxxxxxxxxxxx 2500 USA  
      WxxxBExxxxxxxxxxxxx 2500 Canada  
      WxxxPFxxxxxxxxxxxxx 3500 USA  
      WxxxBFxxxxxxxxxxxxx 3500 Canada**

**Diagnosis Socket: 16-Pin OBD2**

**Mercedes-Benz (non-NAFTA) equivalent: Chassis Series 906**

**Mercedes-Benz Mexico model information is found in the MB international VIN information, as MB Mexico now carries the entire range of Sprinter vehicles.**

## Mercedes-Benz and MB Canada Version VIN: 2010-On

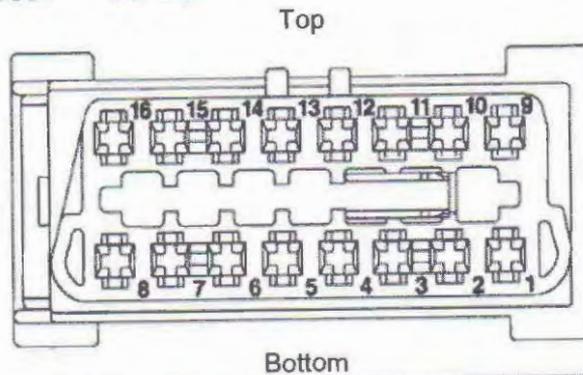
Note: This VIN chart applies to the USA and Canada.

VIN Position	Description	Code Description																					
1	Country of Origin	W = Daimler AG (Germany)																					
2	Assembler	D = Sprinter Plant Düsseldorf, Germany C = Sprinter Bus Plant Ludwigsfelde, Germany																					
3	Vehicle Series	A = Mercedes-Benz Incomplete Vehicle 3 = Mercedes-Benz Truck Z = Mercedes-Benz MPV (Mini-Bus) P = Freightliner Incomplete Y = Freightliner Truck D = Freightliner MPV (Mini-Bus)																					
4	Market	P = 4X2 US B = 4X2 Canada Regulation																					
5	Vehicle Line	E = Combine with position 6 F = Combine with position 6																					
6	Series	<table border="1"> <thead> <tr> <th>Model:</th> <th>Class:</th> <th>Wheelbase:</th> </tr> </thead> <tbody> <tr> <td>0 = C3500</td> <td>H</td> <td>3665 mm</td> </tr> <tr> <td>1 = C3500</td> <td>H</td> <td>4325 mm</td> </tr> <tr> <td>3 = C3500/3500C</td> <td>3</td> <td>3665 mm</td> </tr> <tr> <td>4 = C3500/3500C</td> <td>3</td> <td>4325 mm</td> </tr> <tr> <td>7 = C2500/2500C</td> <td>G</td> <td>3665 mm</td> </tr> <tr> <td>8 = C2500/2500C</td> <td>G</td> <td>4325 mm</td> </tr> </tbody> </table>	Model:	Class:	Wheelbase:	0 = C3500	H	3665 mm	1 = C3500	H	4325 mm	3 = C3500/3500C	3	3665 mm	4 = C3500/3500C	3	4325 mm	7 = C2500/2500C	G	3665 mm	8 = C2500/2500C	G	4325 mm
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4 = C3500/3500C	3	4325 mm																					
7 = C2500/2500C	G	3665 mm																					
8 = C2500/2500C	G	4325 mm																					
7	Engine Code	A = MP0 Diesel Engine (CANADA/MEXICO) B = MG5 + MH1 Diesel EPA/10 (USA 50 State Emissions)																					
8	Restraint System	A = None B = SA5 Driver Airbag C = SA5 + SA6 Driver and Front Passenger Airbag D = SA5 + SA6 + (SH6/SH7) + SA9 Driver/Passenger Airbags + Window Airbags																					
9	Check Digit	= Check Digit (Varies 0-9 or A-Z)																					
10	Model Year	A = 2010 B = 2011																					
11	Assembly Plant	5 = Düsseldorf Germany 9 = Ludwigsfelde, Germany																					
12 – 17	Serial Number	Serialized production number																					

## DIAGNOSTIC SOCKETS: NAFTA SPRINTER

## 2000-2006 Dodge/Freightliner/Mercedes-Benz Diesel Sprinter:

### 16-Pin Connector – OBD2



#### 16-Pin Connector Pin Diagram:

#### Pin Diagnostic Function Assignment

Pin	Diagnostic Function Assignment
1	Immobilizer
2	Not Assigned
3	Engine Control Unit – (Engine Speed Signal – TN)
4	Chassis Ground
5	Engine Control Unit – (Electronics Ground) or Chassis Ground
6	Not Assigned
7	Engine Control Unit – (Diagnosis K-Line)
8	Ignition Switched Power (Terminal 15+)
9	Anti-lock Brakes + Traction Control System Electronic Gear Selector Lever
10	Not Assigned
11	Radio Diagnosis Automatic Transmission
12	Alarm System Central Locking Auxiliary Heater 1
13	Airbag Control Module
14	Not Assigned
15	Instrument Cluster Automatic Heating and Air Conditioning Auxiliary Heater 2 (Booster) Module
16	Battery Constant Power (Terminal 30+)

MERCEDES-BENZ, DODGE, FREIGHTLINER  
SPRINTER FROM MODEL YEAR 2002 TO 2006

Complete listings of Fault Codes for all variants for NAFTA Markets: USA, Canada, and Mexico

## POWERTRAIN SYSTEMS CONTROL UNITS

For 2000-2006 NAFTA Sprinters, depending on optional equipment, the Powertrain system control units may include:

1. CDI2 – Common Rail Diesel Injection for OM612
2. CDI3 – Common Rail Diesel Injection for OM647 (50-State USA)
3. EGS – Automatic Transmission Control Unit for NAG1 (722.6)
4. EWM – Gearshift Lever Control Unit for Automatic Transmission

If you are unsure which engine variant is in the vehicle, see the VIN decoder in the appendix of this book.

**IMPORTANT NOTE:** This fault code guide covers original factory installed control units and systems. Some vehicles may have either aftermarket or dealer installed components that are not covered by this book. For fault codes or troubleshooting instructions on aftermarket or dealer installed components, refer to the documentation provided by the manufacturer of the component.

## CDI2 DIESEL ENGINE

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ASW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	IG	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## CDI2 Diesel Engine Control Unit

### Acronyms:

Mercedes-Benz/Freightliner: CDI2/CR2

Chrysler/Dodge: ECM

This fault code list is applicable for engine OM612 from 2002-2004 (NAFTA).

### Fault Code List:

Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P0100	001	Mass air-flow sensor (B101)	The signal voltage is too low.
P0100	002	Mass air-flow sensor (B101)	The signal voltage is too high.
P0100	004	Mass air-flow sensor (B101)	The voltage supply value is too high or too low
P0100	016	Mass air-flow sensor (B101)	The sensor or signal value is implausible
P0100	032	Mass air-flow sensor (B101)	The sensor or signal value is implausible
P0100	064	Mass air-flow sensor (B101)	The sensor or signal value is implausible
P0100	128	Mass air-flow sensor (B101)	The sensor or signal value is implausible
P0105	001	Boost pressure sensor (B112)	The signal voltage is too low.
P0105	002	Boost pressure sensor (B112)	The signal voltage is too high.
P0105	004	Boost pressure sensor (B112)	The voltage supply value is too high or too low
P0105	128	Boost pressure sensor (B112)	The sensor or signal value is implausible
P0110	001	Intake air temperature sensor (G14)	The signal voltage is too low.

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P0110	002	Intake air temperature sensor (G14)	The signal voltage is too high.
P0115	001	Coolant temperature sensor (B16)	The signal voltage is too low.
P0115	002	Coolant temperature sensor (B16)	The signal voltage is too high.
P0115	004	Coolant temperature sensor (B16)	The operating temperature has not been reached.
P0180	001	Fuel temperature sensor (B30)	The signal voltage is too low.
P0180	002	Fuel temperature sensor (B30)	The signal voltage is too high.
P0190	001	Rail pressure sensor (B113)	The signal voltage is too low.
P0190	002	Rail pressure sensor (B113)	The signal voltage is too high.
P0190	004	Rail pressure sensor (B113)	The voltage supply value is too high or too low
P0190	128	Rail pressure sensor (B113)	Plausibility of signals between rail pressure sensor (B113) and pressure control valve
P0201	001	Injector cylinder 1 (Y16)	Excess current on control cable
P0201	004	Injector cylinder 1 (Y16)	Excess current on common cable
P0201	008	Injector cylinder 1 (Y16)	Cable has open circuit
P0201	064	Injector cylinder 1 (Y16)	Cable has short circuit
P0202	001	Injector cylinder 2 (Y17)	Excess current on control cable
P0202	004	Injector cylinder 2 (Y17)	Excess current on common cable
P0202	008	Injector cylinder 2 (Y17)	Cable has an open circuit.
P0202	064	Injector cylinder 2 (Y17)	Cable has a short circuit to voltage (+).
P0203	001	Injector cylinder 3 (Y18)	Excess current on control cable
P0203	004	Injector cylinder 3 (Y18)	Excess current on common cable
P0203	008	Injector cylinder 3 (Y18)	Cable has an open circuit.

## The Complete Sprinter Fault Code Guide -- Powertrain Systems -- Diesel Engine CDI2

Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P0203	064	Injector cylinder 3 (Y18)	Cable has a short circuit to voltage (+).
P0204	001	Injector cylinder 4 (Y14)	Excess current on control cable
P0204	004	Injector cylinder 4 (Y14)	Excess current on common cable
P0204	008	Injector cylinder 4 (Y14)	Cable has an open circuit.
P0204	064	Injector cylinder 4 (Y14)	Cable has a short circuit to voltage (+).
P0205	001	Injector cylinder 5 (Y65)	Excess current on control cable
P0205	004	Injector cylinder 5 (Y65)	Excess current on common cable
P0205	008	Injector cylinder 5 (Y65)	Cable has an open circuit.
P0205	064	Injector cylinder 5 (Y65)	Cable has a short circuit to voltage (+).
P0500	001	Vehicle speed signal	The CAN message is invalid.
P0500	002	Vehicle speed signal	The signal voltage is too high.
P0500	008	Vehicle speed signal	The CAN message is invalid.
P0500	128	Vehicle speed signal	The frequency is too large.
P0600	004	CAN Event	The CAN-bus is faulty.
P0600	008	CAN Event	Cable short between CAN-H and CAN-L cables. CAN-bus cannot transmit messages.
P0600	016	CAN Event	Cable short between CAN-H and CAN-L cables. CAN-bus cannot transmit messages.
P0600	032	CAN Event	CAN-bus cables faulty.
P0703	001	CAN Brake signal	The CAN message is implausible.

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	W/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	W/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	SKREEM		Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P0703	064	CAN Brake signal	Plausibility fault 1
P0703	128	CAN Brake signal	Plausibility fault 2
P1105	001	Internal atmospheric pressure sensor (A80)	The signal voltage is too low.
P1105	002	Internal atmospheric pressure sensor (A80)	The signal voltage is too high.
P1187	001	Rail pressure monitoring	The maximum pressure has been exceeded.
P1187	002	Rail pressure monitoring	The rail pressure is too low.
P1187	004	Rail pressure monitoring	Fuel rail cannot pressurize.
P1187	008	Rail pressure monitoring	The pressure control valve jams in the closed position.
P1187	016	Rail pressure monitoring	Leakage detected
P1187	032	Rail pressure monitoring	Leakage detected
P1187	064	Rail pressure monitoring	Control variation is greater than 1500 rpm
P1188	004	Element shut off of high pressure pump (Y93)	Cable has a short circuit to voltage (+) or short circuit to ground (-).
P1188	008	Element shut off of high pressure pump (Y93)	Cable has an open circuit.
P1189	001	Inlet port shut off valve (Y88)	Vacuum transducer valve is jammed closed.
P1189	002	Inlet port shut off valve (Y88)	Vacuum transducer valve is jammed open.
P1189	004	Inlet port shut off valve (Y88)	Cable has a short circuit to voltage (+).
P1189	008	Inlet port shut off valve (Y88)	Cable has an open circuit or short circuit to ground (-).
P1189	016	Inlet port shut off valve (Y88)	Signal faulty. Check vacuum supply to transducer and transducer.
P1189	032	Inlet port shut off valve (Y88)	Signal faulty. Check vacuum supply to transducer and transducer.
P1190	004	Rail pressure control valve (Y92)	Cable has a short circuit to voltage (+) or short circuit to ground (-).
P1190	008	Rail pressure control valve (Y92)	Cable has an open circuit.

## The Complete Sprinter Fault Code Guide -- Powertrain Systems -- Diesel Engine CDI2

Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P1190	128	Rail pressure control valve (Y92)	Plausibility
P1192	001	Engine oil sensor (B110)	Synchronization signal pause is faulty. B110 is faulty.
P1192	002	Engine oil sensor (B110)	Synchronization signal pause is faulty. B110 is faulty.
P1192	004	Engine oil sensor (B110)	Cable has a short circuit to voltage (+) or open circuit.
P1192	008	Engine oil sensor (B110)	The voltage supply value is too high or too low
P1192	016	Engine oil sensor (B110)	Period time error of oil sensor. B110 is faulty.
P1192	032	Engine oil sensor (B110)	Oil level value is implausible. Engine oil level is too low.
P1192	064	Engine oil sensor (B110)	Oil quality value is implausible. Incorrect viscosity and/or type of oil used. Change oil to an approved oil to MB standard 228.5 or better.
P1192	128	Engine oil sensor (B110)	Water is in engine oil. Change oil.
P1221	016	CAN communication is faulty.	Fault of traction system over CAN
P1221	032	CAN communication is faulty.	Fault of EGS [TCM] over CAN
P1222	001	Pedal value sensor (B96) potentiometer 1	The signal voltage is too low.
P1222	002	Pedal value sensor (B96) potentiometer 1	The signal voltage is too high.
P1222	004	Pedal value sensor (B96) potentiometer 1	The voltage supply value is too high or too low
P1222	016	Pedal value sensor (B96) potentiometer 1	Plausibility error 1. Cables or components from A80 to B96 are damaged.
P1222	032	Pedal value sensor (B96) potentiometer 1	Plausibility error 2. Cables or components from A80 to B96 are damaged.
P1222	064	Pedal value sensor (B96) potentiometer 1	Plausibility error 3. Cables or components from A80 to B96 are damaged.
P1234	001	Pedal value sensor (B96) potentiometer 2	The signal voltage value is too low.

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
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EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P1234	002	Pedal value sensor (B96) potentiometer 2	The signal voltage value is too high.
P1234	004	Pedal value sensor (B96) potentiometer 2	The voltage supply value is too high or too low
P1234	128	Pedal value sensor (B96) potentiometer 2	Plausibility of potentiometer 1 value and potentiometer 2 value is
P1330	004	Starter relay (K61)	Cable has a short circuit to voltage (+) or short circuit to ground (-).
P1330	008	Starter relay (K61)	Cable has an open circuit.
P1330	016	Starter relay (K61)	Attempt at starting without circuit 50.
P1335	001	Crankshaft sensor (B73)	Dynamic plausibility error. B73 is dirty, installed poorly, or faulty.
P1335	002	Crankshaft sensor (B73)	Over-speed detection. Starter relay (K61) is faulty.
P1335	064	Crankshaft sensor (B73)	Plausibility error 2. Injector cables are faulty.
P1353	016	Working speed ADR control (S3)	Positive control variation fault. Test cables. Inspect fuse F127 and ADR pushbutton (S3).
P1353	032	Working speed ADR control (S3)	Negative control variation fault. Test cables. Inspect fuse F127 and ADR pushbutton (S3).
P1353	128	Working speed ADR control (S3)	Test cables. Inspect fuse F127 and ADR pushbutton (S3).
P1354	001	Synchronization error between crankshaft sensor (B73) and camshaft sensor (B108)	Faulty sensors or cables. The flow limiter has been activated.
P1354	002	Synchronization error between crankshaft sensor (B73) and camshaft sensor (B108)	Camshaft sensor (B108) is faulty. Frequency of camshaft signal is too high.
P1354	016	Synchronization error between crankshaft sensor (B73) and camshaft sensor (B108)	Faulty sensors or cables. No crankshaft signal from B73.
P1354	032	Synchronization error between crankshaft sensor (B73) and camshaft sensor (B108)	Faulty sensors or cables. Plausibility error between crankshaft and camshaft position signals.
P1354	064	Synchronization error between crankshaft sensor (B73) and camshaft sensor (B108)	Faulty sensors or cables. No camshaft signal from B108.
P1354	128	Synchronization error between crankshaft sensor (B73) and camshaft sensor (B108)	Faulty sensors or cables. Check flywheel for damaged signal splines. Main injection correction is faulty.
P1403	004	Exhaust gas recirculation valve (Y83)	Cable has a short circuit to voltage (+) or short circuit to ground (-). Fuse A12f16 is faulty.

## The Complete Sprinter Fault Code Guide – Powertrain Systems -- Diesel Engine CDI2

Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P1403	008	Exhaust gas recirculation valve (Y83)	Cable has an open circuit. Fuse A12f16 is faulty.
P1403	016	Exhaust gas recirculation	Exhaust gas recirculation rate is too high. Inspect EGR valve (Y83) and vacuum lines. Air leaks possible.
P1403	032	Exhaust gas recirculation	Exhaust gas recirculation rate is too low. Inspect EGR valve (Y83) and vacuum lines. Air leaks possible.
P1403	128	Exhaust gas recirculation	Flow-check error. Inspect EGR valve (Y83) and vacuum lines. Air leaks possible.
P1470	004	Charge pressure control valve (Y87)	Cable has a short circuit to voltage (+).
P1470	008	Charge pressure control valve (Y87)	Cable has an open circuit or short circuit to voltage (+).
P1470	016	Charge pressure control	Charge pressure is too low. Inspect EGR valve (Y83), Boost Pressure Sensor (B112), Boost Pressure control valve (B87) and vacuum lines. Turbocharger is faulty or damaged.
P1470	032	Charge pressure control	Charge pressure is too high. Inspect EGR valve (Y83), Boost Pressure Sensor (B112), Boost Pressure control valve (B87) and vacuum lines. Air leaks possible. Turbocharger is faulty or damaged.
P1470	064	Charge pressure control	On/off ration of actuation is too large. Inspect EGR valve (Y83), Boost Pressure Sensor (B112), Boost Pressure control valve (B87) and vacuum lines.
P1481	001	Glow plug failure	Cylinder 1 glow plug (R17) is faulty.
P1481	002	Glow plug failure	Cylinder 2 glow plug (R16) is faulty.
P1481	004	Glow plug failure	Cylinder 3 glow plug (R15) is faulty.
P1481	008	Glow plug failure	Cylinder 4 glow plug (R14) is faulty.
P1481	016	Glow plug failure	Cylinder 5 glow plug (R13) is faulty.
P1482	001	Glow output stage (D4)	Communication fault. Inspect cables from D4 to CDI [ECM] control unit (A80).
P1482	002	Glow output stage (D4)	General fault. Replace D4.

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	H2R	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	IG	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P1482	004	Glow output stage (D4)	Excess current. Replace D4.
P1482	008	Glow output stage (D4)	Cable has a short circuit to voltage (+).
P1482	032	Glow output stage (D4)	Incorrect diagnosis sequence. Incorrect part fitted for application.
P1482	064	Glow output stage (D4)	Implausible reception byte. Inspect cables from D4 to CDI [ECM] control unit (A80).
P1515	001	Maximum vehicle speed limit	Negative control variation. Erase fault code and road test vehicle.
P1520	001	Cruise control	Negative acceleration threshold. Erase fault code and road test vehicle.
P1520	002	Cruise control	Positive acceleration threshold. Erase fault code and road test vehicle.
P1520	016	Cruise control	Operating switch (S123) is faulty.
P1520	032	Cruise control	No check contact. Operating switch (S123) is faulty.
P1520	064	Cruise control	Operating parts signals through CAN are implausible. Operating switch (S123) is faulty.
P1520	128	Cruise control	Operating switch has contact short (two contacts synchronous). Operating switch (S123) is faulty.
P1610	001	Voltage supply relay	Voltage supply relay switches off too soon (no fault storage possible). Short circuit in voltage supply cables to CDI [ECM] control unit (A80) or fuse A12f16 is faulty. Relay A12k3 is faulty, or A12 fuse and relay board is faulty.
P1610	002	Voltage supply relay	Voltage supply relay switches off too late. Short circuit to voltage (+) in voltage supply cables to CDI [ECM] control unit (A80). Relay A12k3 is faulty, relay A12n1 is faulty, or A12 fuse and relay board is faulty.
P1611	001	Reference voltage	Readout value too small. Wiring fault.
P1611	002	Reference voltage	Readout value too large. Wiring fault.
P1612	001	Voltage terminal 15	Analysis circuit is faulty. Wiring fault.
P1613	001	CDI [ECM] control unit (A80)	Lower stabilization limit reached. Replace CDI [ECM] control unit (A80).
P1613	002	CDI [ECM] control unit (A80)	Upper stabilization limit reached. Replace CDI [ECM] control unit (A80).
P1614	001	CDI [ECM] control unit (A80)	Recovery error of smooth running controls. Replace CDI [ECM] control unit (A80).
P1614	016	CDI [ECM] control unit (A80)	Shut off monitoring error. Replace CDI [ECM] control unit (A80).

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Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P1614	032	CDI [ECM] control unit (A80)	Fuel quantity stop error. Replace CDI [ECM] control unit (A80).
P1614	064	CDI [ECM] control unit (A80)	General communication error 1. Replace CDI [ECM] control unit (A80).
P1614	128	CDI [ECM] control unit (A80)	General communication error 2. Replace CDI [ECM] control unit (A80).
P1615	001	CDI [ECM] control unit (A80)	The voltage supply value is too low. Wiring fault. Voltage supply value is <8V.
P1615	002	CDI [ECM] control unit (A80)	The voltage supply value is too large. Alternator faulty. Voltage supply value is >16V.
P1617	002	CDI [ECM] control unit (A80)	Adaptation values of EEPROM faulty or cannot be set. Replace CDI [ECM] control unit (A80).
P1617	004	CDI [ECM] control unit (A80)	Sprintshift has been coded as manual transmission. Incorrect CDI [ECM] control unit is installed. NOT APPLICABLE USA/CANADA
P1617	008	CDI [ECM] control unit (A80)	Manual transmission has been coded as Sprintshift. Incorrect CDI [ECM] control unit is installed. NOT APPLICABLE USA/CANADA
P1617	016	CDI [ECM] control unit (A80)	EEPROM fault. Replace CDI [ECM] control unit (A80).
P1617	032	CDI [ECM] control unit (A80)	CAN bus open circuit during variant coding. Voltage supply wiring fault.
P1617	064	CDI [ECM] control unit (A80)	No harmonizing version number. Incorrect CDI [ECM] control unit is installed.
P1617	128	CDI [ECM] control unit (A80)	Codeword is incorrect or missing. Incorrect CDI [ECM] control unit is installed.
P1630	016	WSP [SKREEM] immobilizer CAN-Bus message error.	WSP [SKREEM] immobilizer control unit does not answer or is faulty.
P1630	032	WSP [SKREEM] immobilizer CAN-Bus message error.	Incorrect authentication value received from WSP [SKREEM] control unit.
P1630	064	WSP [SKREEM] immobilizer CAN-Bus message error.	CDI [ECM] control unit (A80) is faulty.
P1661	001	Capacitor voltage 1	Value read too small. Check cables from A80 to injectors.
P1661	002	Capacitor voltage 1	Value read too large. Check cables from A80 to injectors.

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AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P1661	016	Capacitor voltage 1	Overvoltage. Check cables from A80 to injectors.
P1661	032	Capacitor voltage 1	Undervoltage. Check cables from A80 to injectors.
P1661	064	Capacitor voltage 1	Specified voltage calculated value is below threshold. Check cables from A80 to injectors.
P1663	001	Rail pressure control valve (Y92)	The signal voltage is too low.
P1663	002	Rail pressure control valve (Y92)	The signal voltage is too high.
P1666	064	Shut off control	Fault in switching off through zero quantity. CDI [ECM] control unit (A80) is faulty.
P1666	128	Shut off control	Fault in switching off through injectors. CDI [ECM] control unit (A80) is faulty
P1681	004	Airbag crash signal (Engine-off)	Cable has a short circuit to voltage (+) or AB [ACM] control unit (10) is faulty.
P1681	128	RESERVED	Reserved for future use.
P1698	004	AC compressor shutoff function	Cable has a short circuit to voltage (+) or short circuit to ground (-). AC compressor clutch (Y38) is faulty.
P1698	008	AC compressor shutoff function	Cable has an open circuit. AC compressor clutch (Y38) is faulty.
P1698	128	AC compressor shutoff function	Data transfer over CAN-Bus is faulty. Fault codes present in HZR [ATC] control unit.
P1699	001	Engine start-stop function	Engine stop command unsuccessful. Cables faulty or Start-stop switch (S32) is faulty.
P1699	002	Engine start-stop function	Engine start command unsuccessful. Cables faulty or Start-stop switch (S32) is faulty.
P1699	008	Engine start-stop function	Plausibility error 1. Cables faulty or Start-stop switch (S32) is faulty.
P1699	016	Engine start-stop function	Plausibility error 2. Cables faulty or Start-stop switch (S32) is faulty.
P1699	032	Engine start-stop function	Plausibility error 3. Cables faulty or Start-stop switch (S32) is faulty.
P1699	064	Engine start-stop function	Clutch "up" error. Cables faulty or Start-stop switch (S32) is faulty.
P1699	128	Engine start-stop function	Clutch "down" error. Cables faulty or Start-stop switch (S32) is faulty.
P2006	001	Pre-delivery pressure sensor (B132)	The signal voltage is too low.
P2006	002	Pre-delivery pressure sensor (B132)	The signal voltage is too high.

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Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P2006	004	Pre-delivery pressure sensor (B132)	The sensor or signal value is implausible
P2007	001	Monitoring of pre-delivery pressure	Pre-delivery pressure value is too small.
P2007	002	Monitoring of pre-delivery pressure	The actual pressure measured differs from the specified pressure.
P2007	004	Monitoring of pre-delivery pressure	The minimum pressure required for engine start has not been achieved.
P2007	008	Monitoring of pre-delivery pressure	The fuel filter is faulty or dirty.
P2008	001	Fuel pressure	Fuel pressure is too low. Inspect fuel lines for damage or restrictions. Replace fuel filter if dirty.
P2008	002	Fuel pressure	Fuel pressure is too high. Inspect fuel lines for damage or restrictions. Replace fuel filter if dirty.
P2009	128	Water level sensor (B129)	Water in the fuel filter.
P2100	004	Electric fuel pump	Cable has a short circuit to voltage (+).
P2100	008	Electric fuel pump	Cable has a short circuit to ground (-) or open circuit.
P2100	128	Electric fuel pump	Plausibility fault.
P2200	001	Fault codes stored in instrument cluster	Fault codes present in instrument cluster.
P2200	002	Fault codes stored in instrument cluster	Pre-glow indicator lamp faulty
P2203	001	External quantity control by ABS/ASR [CAB]	Fault codes present in ABS [CAB] control unit. No communication.
P2203	002	External quantity control by ABS/ASR [CAB]	Fault codes present in ABS [CAB] control unit. The CAN message is implausible.
P2203	004	External quantity control by ABS/ASR [CAB]	Fault codes present in ABS [CAB] control unit. Torque request from ABS/ASR [CAB] control unit is faulty.
P2203	008	External quantity control by ABS/ASR [CAB]	Fault codes present in ABS [CAB] control unit. Not all CAN messages have been received.
P2203	016	External quantity control by ABS/ASR [CAB]	Fault codes present in ABS [CAB] control unit. CAN request from ABS/ASR [CAB] control unit is implausible.

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	NBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Fault	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
P2203	032	External quantity control by ABS/ASR [CAB]	Fault codes present in ABS [CAB] control unit. CAN request from ABS/ASR [CAB] control unit is implausible.
P2204	001	External quantity control by EGS [TCM]	Fault codes present in EGS [TCM] control unit. Read fault memory of EGS [TCM] control unit.
P2204	002	External quantity control by EGS [TCM]	Fault codes present in EGS [TCM] control unit. Read fault memory of EGS [TCM] control unit.
P2204	004	External quantity control by EGS [TCM]	Fault codes present in EGS [TCM] control unit. The CAN message is implausible.
P2204	008	External quantity control by EGS [TCM]	Fault codes present in EGS [TCM] control unit. Torque request from EGS [TCM] control unit is faulty.
P2204	016	External quantity control by EGS [TCM]	Fault codes present in EGS [TCM] control unit. Not all CAN messages have been received.
P2204	032	External quantity control by EGS [TCM]	Fault codes present in EGS [TCM] control unit. CAN request from EGS [TCM] control unit is implausible.
P2204	064	External quantity control by EGS [TCM]	Fault codes present in EGS [TCM] control unit. Engine stop signal has been received.
P2306	001	Sensor group voltage supply 2	The value read is too small.
P2306	002	Sensor group voltage supply 2	The value read is too large.
P2319	032	Analog-digital converter	RAM test is incorrect. CDI [ECM] control unit (A80) is faulty.
P2319	064	Analog-digital converter	Ground keying of pedal value sensor 2 is incorrect. CDI [ECM] control unit (A80) is faulty.
P2319	128	Analog-digital converter	Test voltage is incorrect. CDI [ECM] control unit (A80) is faulty.
P2320	001	Threshold voltage	Capacitor voltage 1. CDI [ECM] control unit (A80) is faulty.
P2320	002	Threshold voltage	Capacitor voltage 2. CDI [ECM] control unit (A80) is faulty.

NOTES:

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KJ	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	SKREEM		Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	CHM		Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	HBM		Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## CDI3 DIESEL ENGINE

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	WA	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	WA	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

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## CDI3 Diesel Engine Control Unit

### Acronyms:

Mercedes-Benz/Freightliner: CDI3/CR3

Chrysler/Dodge: ECM

This fault code list is applicable for engine OM647 from 2004-2006.

### Fault Code List:

Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
0100	1	Mass air flow sensor (raw value)	The signal voltage is too high.
0100	2	Mass air flow sensor (raw value)	The signal voltage is too low.
0105	1	Boost pressure sensor (B141)	The signal voltage is too high.
0105	2	Boost pressure sensor (B141)	The signal voltage is too low.
0105	4	Boost pressure sensor (B141)	CAN signal faulty
0105	8	Boost pressure sensor (B141)	The signal value is implausible
0110	1	Charge air temperature sensor (G14)	Open circuit
0110	2	Charge air temperature sensor (G14)	Short circuit
0115	1	Coolant temperature sensor (B16)	Open circuit
0115	2	Coolant temperature sensor (B16)	Short circuit
0115	4	Coolant temperature sensor (B16)	Signal error
0115	8	Coolant temperature sensor (B16)	The temperature difference between the coolant temperature sensor (B16) and the engine oil level sensor (B110) is implausible.

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
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CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HSM	Auxiliary Heater Booster
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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
0180	1	Fuel temperature sensor (B30)	Open circuit
0180	2	Fuel temperature sensor (B30)	Short circuit
0190	1	Rail pressure sensor (B113)	Short circuit to voltage (+) or open circuit
0190	2	Rail pressure sensor (B113)	Short circuit to ground (-)
0201	1	Injector fault	Cylinder 1 injector (Y16) has a short circuit to voltage (+).
0201	4	Injector fault	There is excessive current on the control line to Cylinder 1 injector (Y16)
0201	8	Injector fault	Cylinder 1 injector (Y16) has a short circuit to ground (-) or an open circuit.
0202	1	Injector fault	Cylinder 2 injector (Y17) has a short circuit to voltage (+).
0202	4	Injector fault	There is excessive current on the control line to Cylinder 2 injector (Y17)
0202	8	Injector fault	Cylinder 2 injector (Y17) has a short circuit to ground (-) or an open circuit.
0203	1	Injector fault	Cylinder 3 injector (Y18) has a short circuit to voltage (+).
0203	4	Injector fault	There is excessive current on the control line to Cylinder 3 injector (Y18)
0203	8	Injector fault	Cylinder 3 injector (Y18) has a short circuit to ground (-) or an open circuit.
0204	1	Injector fault	Cylinder 4 injector (Y14) has a short circuit to voltage (+).
0204	4	Injector fault	There is excessive current on the control line to Cylinder 4 injector (Y14)
0204	8	Injector fault	Cylinder 4 injector (Y14) has a short circuit to ground (-) or an open circuit.
0205	1	Injector fault	Cylinder 5 injector (Y65) has a short circuit to voltage (+).
0205	4	Injector fault	There is excessive current on the control line to Cylinder 5 injector (Y65)
0205	8	Injector fault	Cylinder 5 injector (Y65) has a short circuit to ground (-) or an open circuit.
0300	1	Misfiring detection	The permissible number of misfirings was exceeded at one or more cylinders.
0500	4	VSS signal error	The wheel speed signals sent by control unit ESP [CAB] control unit (A2) via the CAN-Bus are implausible.

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
0600	1	CAN error	The CAN-Bus has an open circuit, a short circuit to ground (-), or a short circuit to voltage (+).
1105	1	CDI [ECM] control unit (A94)	General Fault
1105	2	CDI [ECM] control unit (A94)	General Fault
1105	8	CDI [ECM] control unit (A94)	General Fault
1222	1	Pedal position (B147) sensor 1	Short circuit to voltage (+)
1222	2	Pedal position (B147) sensor 1	Short circuit to ground (-) or open circuit
1222	8	Pedal position (B147) sensor 1	Sensor faulty
1234	1	Pedal position (B147) sensor 2	Short circuit to voltage (+)
1234	2	Pedal position (B147) sensor 2	Short circuit to ground (-) or open circuit
1234	8	Pedal position (B147) sensor 2	Sensor faulty
1353	1	Working speed controller (ADR)	Control deviation is too large.
1353	4	Working speed controller (ADR)	Fault in operating unit
1480	1	Pre-glow indicator lamp.	Fault from instrument cluster over CAN
1482	1	Pre-glow fault	At least one of the glow plugs has a short circuit.
1482	2	Pre-glow fault	The glow time output stage
1482	4	Pre-glow fault	A communication error occurred between the Pre-glow time output stage control unit (D4) and the CDI [ECM] control unit (A94).
1482	8	Pre-glow fault	Pre-glow time output stage control unit (D4) faulty
1520	2	Cruise Control	Fault in cruise control switch operating unit (S123)

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CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
1610	1	Engine control unit run-on fault	CDI [ECM] motor electronics relay (A12k3) switches off too late.
1610	2	Engine control unit run-on fault	CDI [ECM] motor electronics relay (A12k3) switches off too soon.
1611	1	Sensor supply 1.	Voltage is too high.
1611	2	Sensor supply 1.	Voltage is too low.
1612	4	Voltage at terminal 15	Open circuit
1615	1	Supply voltage.	Voltage is too high.
1615	2	Supply voltage	Voltage is too low.
1617	1	Internal fault	An error occurred during the last write or read operation.
1617	2	Internal fault	An error occurred during the last read operation.
1617	4	Internal fault	An error occurred during the last write operation.
1617	8	Internal fault	The preset values were used.
1630	1	Start enable command is not issued	The WSP [SKREEM] control unit (A62) is faulty or CAN communication is interrupted
1630	2	Start enable command is not issued	WSP [SKREEM] control unit (A62) does not answer
1630	4	Start enable command is not issued	Expanded authentication value response from WSP [SKREEM] control unit (A62)
1630	8	Start enable command is not issued	Current key used is blocked
1681	1	Crash signal reported	Engine emergency off crash signal from AB [ACM] airbag control unit has been received by CDI [ECM] control unit (A94).
2004	8	Thermostat	Thermostat monitoring error
2008	1	Rail pressure sensor offset test	The signal voltage is too high.
2008	2	Rail pressure sensor offset test	The signal voltage is too low.
2009	1	Water in fuel filter	The fill level sensor (water separator) does not supply a signal.
2009	2	Water in the fuel filter	Excessive moisture

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2010	1	Mass air-flow sensor (B101)	Measuring range exceeded
2010	2	Mass air-flow sensor (B101)	Measuring range exceeded
2011	1	Mass air-flow sensor (B101)	Measuring range exceeded
2011	2	Mass air-flow sensor (B101)	Readout below range
2012	8	Coolant temperature sensor (B16)	Coolant temperature sensor faulty.
2013	1	Ambient air temperature sensor	The signal voltage is too high.
2013	2	Ambient air temperature sensor	The signal voltage is too low.
2013	4	Ambient air temperature sensor	Fault from instrument cluster over CAN
2014	1	Engine oil level sensor (B110)	The signal voltage is too high.
2014	2	Engine oil level sensor (B110)	The signal voltage is too low.
2014	4	Engine oil level sensor (B110)	Oil temperature value reported is implausible.
2014	8	Engine oil level sensor (B110)	Signal value is implausible
2015	1	Rail pressure monitoring.	The maximum fuel flow quantity was exceeded.
2016	1	Rail pressure monitoring.	Fuel flow was below the specified minimum quantity.
2017	1	Rail pressure monitoring.	The rail pressure is too low.
2018	1	Rail pressure monitoring.	The rail pressure is too high.
2019	1	Rail pressure monitoring.	The maximum pressure has been exceeded.
2019	2	Rail pressure monitoring.	The rail pressure is too low.

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	WA	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	WA	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	MBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2020	1	Rail pressure monitoring.	The rail pressure is too low.
2021	1	Rail pressure monitoring.	The rail pressure is too low.
2023	1	Rail pressure monitoring.	The rail pressure is too high.
2024	1	Mass air-flow sensor (B101)	The signal voltage is too high.
2024	2	Mass air-flow sensor (B101)	The signal voltage is too low.
2025	1	Intake air pressure sensor (B142)	The signal voltage is too high.
2025	2	Intake air pressure sensor (B142)	The signal voltage is too low.
2025	8	Intake air pressure sensor (B142)	Comparative Fault: The atmospheric pressure value differences between the Intake air pressure sensor (B142) and the CDI [ECM] control unit (A94) is implausible.
2026	1	Oxygen sensor (R25)	The signal voltage is too high.
2026	2	Oxygen sensor (R25)	The signal voltage is too low.
2026	4	Oxygen sensor (R25)	Open circuit
2026	8	Oxygen sensor (R25)	Cable has open circuit.
2028	1	Oxygen sensor (R25)	The signal voltage is too high.
2028	2	Oxygen sensor (R25)	The signal voltage is too low.
2028	4	Oxygen sensor (R25)	Open circuit
2028	8	Oxygen sensor (R25)	Cable has open circuit.
2030	1	Intake air pressure sensor (B142)	The signal voltage is too high.
2030	2	Intake air pressure sensor (B142)	The signal voltage is too low.
2030	4	Intake air pressure sensor (B142)	Open circuit
2030	8	Intake air pressure sensor (B142)	Cable has open circuit.

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2032	1	Oxygen sensor (R25)	The O2 sensor signal is implausible.
2032	2	Oxygen sensor (R25)	The O2 sensor signal is implausible.
2032	4	Oxygen sensor (R25)	The O2 sensor signal is implausible.
2034	1	Oxygen sensor (R25)	Calibration of the oxygen sensor
2034	2	Oxygen sensor (R25)	Calibration of the oxygen sensor
2036	1	Oxygen sensor (R25)	The internal resistance of the oxygen sensor (R25) is not OK.
2036	2	Oxygen sensor (R25)	The internal resistance of the oxygen sensor (R25) is not OK.
2038	1	Oxygen sensor (R25)	Oxygen sensor (R25) measuring range exceeded
2038	2	Oxygen sensor (R25)	Readout below range
2040	1	Engine oil level sensor (B110)	The oil level is beyond the measuring range.
2040	4	Engine oil level sensor (B110)	The measured oil level is invalid.
2040	8	Engine oil level sensor (B110)	An implausible oil level was sent.
2041	1	Engine oil level sensor (B110)	Poor oil quality
2041	4	Engine oil level sensor (B110)	The oil quality cannot be measured.
2041	8	Engine oil level sensor (B110)	Oil quality value is implausible.
2042	1	Engine oil level sensor (B110)	The water content is too high.
2043	1	Camshaft sensor (B108)	Open circuit
2043	2	Camshaft sensor (B108)	Short circuit or open circuit

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ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHH	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	H9M	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

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<b>Fault Code</b>	<b>Sub Fault</b>	<b>Monitored Variable or Component (MB Component Number)</b>	<b>Detail, cause, or remedy</b>
2045	1	Crankshaft sensor (B73)	No signal from crankshaft sensor (B73)
2045	2	Crankshaft sensor (B73)	Signal value is implausible
2047	1	Rail pressure monitoring via volume control valve	The maximum rail pressure was exceeded.
2049	1	Rail pressure monitoring via volume control valve	The on/off ratio in deceleration mode is not plausible.
2051	1	Rail pressure monitoring via pressure control valve	The maximum rail pressure was exceeded.
2052	1	Rail pressure monitoring via pressure control valve	General error
2054	1	Coolant temperature sensor (B16)	The signal voltage is too high.
2054	2	Coolant temperature sensor (B16)	The signal voltage is too low.
2057	4	O2 signal.	The signal voltage is too high.
2058	4	O2 signal.	The signal voltage is too high.
2059	4	Oxygen sensor (R25)	Signal faulty
2061	1	Engine oil level sensor (B110)	Cable has open circuit.
2062	2	Engine oil level sensor (B110)	Signal faulty
2062	4	Engine oil level sensor (B110)	Synchronization pause is breached.
2062	8	Engine oil level sensor (B110)	Error in pulse monitoring of on/off ratio
2063	1	Mass air-flow sensor (B101)	The signal voltage is too high.
2063	2	Mass air-flow sensor (B101)	The signal voltage is too low.
2065	1	Voltage supply of mass air-flow sensor (B101)	Voltage is too high.
2065	2	Voltage supply of mass air-flow sensor (B101)	Voltage is too low.
2066	1	Mass air-flow sensor (B101)	The air mass is too large.

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2066	2	Mass air-flow sensor (B101)	The air mass is too small.
2067	1	Mass air-flow sensor (B101)	The signal voltage is too high.
2067	2	Mass air-flow sensor (B101)	The signal voltage is too low.
2067	4	Mass air-flow sensor (B101)	The signal line has a short circuit or discontinuity.
2068	1	Mass air-flow sensor (B101)	On/off ratio of reference signal is too large.
2068	2	Mass air-flow sensor (B101)	On/off ratio of reference signal is too small.
2068	4	Mass air-flow sensor (B101)	On/off ratio of reference signal is outside of permissible range.
2087	1	Monitoring of the air intake system	The air filter is dirty or has a small obstruction
2087	8	Monitoring of the air intake system	The air filter is excessively clogged or air intake system is obstructed
2088	1	Charge air temperature sensor (G14)	The signal voltage is too high.
2088	2	Charge air temperature sensor (G14)	The signal voltage is too low.
2090	4	Oxygen sensor (R25)	Signal fault
2090	8	Oxygen sensor (R25)	Signal value is implausible
2091	2	Oxygen sensor (R25)	The O2 concentration is too low.
2091	8	Oxygen sensor (R25)	The O2 sensor signal is implausible.
2100	1	Fuel pump relay (K39) does not function properly.	Short circuit to voltage (+)
2100	2	Fuel pump relay (K39) does not function properly.	Short circuit to ground (-)
2100	4	Fuel pump relay (K39) does not function properly.	Open circuit

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AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

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<b>Fault Code</b>	<b>Sub Fault</b>	<b>Monitored Variable or Component (MB Component Number)</b>	<b>Detail, cause, or remedy</b>
2100	8	Fuel pump relay (K39) does not function properly.	CDI [ECM] control unit (A94) thermal overload
2104	1	Starter actuation.	Short circuit to voltage (+)
2110	1	Boost pressure regulator (Y100)	Short circuit to voltage (+)
2111	1	Boost pressure regulator (Y100)	Short circuit to ground (-)
2112	4	Boost pressure regulator (Y100)	Open circuit
2112	8	Boost pressure regulator (Y100)	CDI/CR control unit ECM (A94) thermal overload
2113	1	Misfiring detection Cylinder 1	The number of misfirings is too high.
2114	1	Misfiring detection Cylinder 2	The number of misfirings is too high.
2115	1	Misfiring detection Cylinder 3	The number of misfirings is too high.
2116	1	Misfiring detection Cylinder 4	The number of misfirings is too high.
2117	1	Misfiring detection Cylinder 5	The number of misfirings is too high.
2122	2	Engine switches off unintentionally.	Internal fault
2122	4	Engine switches off unintentionally.	Voltage monitoring
2122	8	Engine switches off unintentionally.	Voltage monitoring
2123	1	Injector actuation fault	Short circuit to ground (-) or to voltage (+)
2123	2	Injector actuation fault	Low-side output: short circuit to ground (-).
2123	8	Injector actuation fault	General error
2124	1	Injector actuation fault	Short circuit to ground (-) or to voltage (+)
2124	2	Injector actuation fault	Low-side output Short circuit to ground (-).
2124	8	Injector actuation fault	General error
2132	1	Pre-glowing failed.	Short circuit to voltage (+) or open circuit

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2132	2	Pre-glowing failed.	Short circuit to ground (-)
2132	8	Pre-glowing failed.	Thermal overload of pre-glow time output stage control module (D4)
2133	1	Glow plug (R17)	Short circuit to voltage (+) or open circuit
2134	1	Glow plug (R16)	Short circuit to voltage (+) or open circuit
2135	1	Glow plug (R15)	Short circuit to voltage (+) or open circuit
2136	1	Glow plug (R14)	Short circuit to voltage (+) or open circuit
2137	1	Glow plug (R13)	Short circuit to voltage (+) or open circuit
2139	4	CDI [ECM] control unit (A94)	Injectors output stage faulty. Replace CDI [ECM] control unit.
2140	4	CDI [ECM] control unit (A94)	Injectors output stage faulty. Replace CDI [ECM] control unit.
2141	4	Cylinder 1 injector (Y16)	Open circuit
2142	4	Cylinder 2 injector (Y17)	Open circuit
2143	4	Cylinder 3 injector (Y18)	Open circuit
2144	4	Cylinder 4 injector (Y14)	Open circuit
2145	4	Cylinder 5 injector (Y65)	Open circuit
2149	1	Fault in analog to digital conversion	The actual value is not within the permissible range.
2149	2	Fault in analog to digital conversion	The actual value is not within the permissible range.
2149	4	Fault in analog to digital conversion	Current value implausible
2151	1	Rail pressure control valve (Y92)	Signal value implausible

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ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lower Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	IC	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HEM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2151	2	Rail pressure control valve (Y92)	Signal value implausible
2151	4	Rail pressure control valve (Y92)	Signal value implausible
2152	2	Starter actuation.	Short circuit to ground (-)
2153	4	Starter actuation.	Short circuit or open circuit.
2153	8	Starter actuation.	CDI [ECM] control unit (A94) thermal overload
2194	8	Inlet port shutoff actuator motor (Y101)	Inlet port shutoff actuator (Y101) stepper motor does not function
2195	1	O2 sensor heater.	Short circuit to voltage (+)
2195	2	O2 sensor heater.	Short circuit to ground (-)
2195	4	O2 sensor heater.	Open circuit
2195	8	O2 sensor heater.	CDI [ECM] control unit (A94) thermal overload
2197	4	Fuel management valve (Y93)	Open circuit
2197	8	Fuel management valve (Y93)	CDI [ECM] control unit (A94) thermal overload
2198	1	Fuel management valve (Y93)	Short circuit to voltage (+)
2199	2	Fuel management valve (Y93)	Short circuit to ground (-)
2201	1	Immobilizer: CAN-bus error	Incorrect CAN message or no CAN message from WSP [SKREEM] control unit (A62): Timeout
2203	1	External quality control by ESP [CAB] control unit	Data transfer faulty or not carried out
2203	2	External quality control by ESP [CAB] control unit	The CAN message is implausible.
2203	4	External quality control by ESP [CAB] control unit	Torque request from control module ESP implausible
2203	8	External quality control by ESP [CAB] control unit	CAN value is implausible
2204	1	External quality control by EGS [TCM] control unit	Not all CAN messages have been received.

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2204	2	External quality control by EGS [TCM] control unit	The CAN message is implausible.
2204	4	External quality control by EGS [TCM] control unit	Torque request from control module ETC
2204	8	External quality control by EGS [TCM] control unit	CAN value is implausible
2208	1	CAN-Bus Brake signal.	CAN value is implausible
2208	2	CAN-Bus Brake signal.	The CAN message is implausible.
2209	1	CAN Event	No or incorrect CAN message from control unit A2 (ABS/ESP control unit); CAN-bus Timeout
2210	1	CAN Event	No or incorrect CAN message from ESM [EWM] control unit (A40)
2211	1	CAN Event	No or incorrect CAN message from (EGS) control unit(A4); CAN-bus Timeout
2214	1	CAN Event	Broadcast of CAN-bus data message was unsuccessful
2217	1	EGS [TCM] transmission control unit (A4) fault	Internal fault in (EGS) (A4) control unit
2218	1	EGS [TCM] transmission control unit (A4) fault	1 - 2- and 4 - 5-shift solenoid valve error
2219	1	EGS [TCM] transmission control unit (A4) fault	2 - 3-shift solenoid valve error
2220	1	EGS [TCM] transmission control unit (A4) fault	3 - 4-shift solenoid valve error
2221	1	EGS [TCM] transmission control unit (A4) fault	Torque converter lockup clutch solenoid valve error
2222	1	EGS [TCM] transmission control unit (A4) fault	Modulating pressure control solenoid valve error
2223	1	EGS [TCM] transmission control unit (A4) fault	Shift pressure control solenoid valve error

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2224	1	EGS [TCM] transmission control unit (A4) fault	Voltage supply of the shift valves is interrupted or is out of range
2225	1	EGS [TCM] transmission control unit (A4) fault	Voltage supply of the speed sensors is interrupted or is out of range
2226	1	EGS [TCM] transmission control unit (A4) fault	CAN message from the gearshift lever control module (EWM)
2227	1	EGS [TCM] transmission control unit (A4) fault	Right rear wheel speed implausible
2228	1	EGS [TCM] transmission control unit (A4) fault	Impermissible transmission ratio reported over CAN
2229	1	EGS [TCM] transmission control unit (A4) fault	The CAN message is implausible.
2230	1	EGS [TCM] transmission control unit (A4) fault	The torque converter lock-up clutch has excessive power consumption.
2231	1	EGS [TCM] transmission control unit (A4) fault	Fault code is not unequivocal.
2232	1	EGS [TCM] transmission control unit (A4) fault	The gear comparison was negative several times.
2233	1	Engine stop system	External engine stop engaged
2234	1	CAN Event	External quality control by ESP [CAB] control unit
2235	1	CAN Event	External quantity intervention by (EGS) control unit (A4) over CAN
2238	1	CAN Event	Implausible CAN message from Airbag control unit (A10)
2240	1	CAN Event	The CAN-Bus message from the Steering angle sensor (B143) is implausible.
2240	2	CAN Event	The CAN-Bus message from the Steering angle sensor (B143) is implausible.
2240	4	CAN Event	The CAN-Bus message from the Steering angle sensor (B143) is implausible.
2240	8	CAN Event	The CAN-Bus message from the Steering angle sensor (B143) is implausible.
2242	1	CAN Event	The braking signal sent from the traction system via the CAN-Bus is implausible.
2242	2	CAN Event	The braking signal sent from the traction system via the CAN-Bus is implausible.

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2243	1	CAN Event	No CAN message was received from the WSP [SKREEM] control unit (A62).
2244	1	CAN Event	The CAN-Bus message of the Instrument cluster (P15) is implausible.
2252	1	CAN Event	No or incorrect CAN message from ESP [CAB] control unit (A2).
2253	1	Implausible signal from steering angle sensor.	Toggle error
2258	1	EGS [TCM] transmission control unit (A4) fault	Implausible CAN message from EGS [TCM] control unit (A4).
2258	2	EGS [TCM] transmission control unit (A4) fault	Implausible CAN message from EGS [TCM] control unit (A4), or no CAN message.
2259	1	CAN Event	External quantity intervention by control unit: Air conditioning pushbutton control module (A81) over CAN
2259	2	CAN Event	External quantity intervention by control unit: Air conditioning pushbutton control module (A81) over CAN
2259	4	CAN Event	External quantity intervention by control unit: Air conditioning pushbutton control module (A81) over CAN
2269	4	CAN Event	Fault or disturbance in CAN message from HZR [ATC] control unit (A81)
2306	1	Voltage supply for Sensor 2.	Voltage is too high.
2306	2	Voltage supply for Sensor 2.	Voltage is too low.
2319	1	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2319	2	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2319	4	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2319	8	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2321	8	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2322	1	Shut-off monitoring.	Engine speed signal is implausible.
2323	8	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2324	1	Injector monitoring.	Undervoltage
2324	2	Injector monitoring.	Internal fault
2324	4	Injector monitoring.	Internal fault
2324	8	Injector monitoring.	Internal fault
2325	1	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2325	2	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2325	4	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2325	8	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2327	8	Pedal position sensor (B147) signal	The signal of the pedal value sensor is implausible.
2329	1	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2330	8	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2332	1	Sensor supply 3.	Voltage is too high.
2332	2	Sensor supply 3.	Voltage is too low.
2333	4	Vehicle speed for cruise control.	Implausible wheel speed
2338	1	Cruise control monitoring.	The acceleration allowed via the cruise control has been exceeded.
2338	2	Cruise control monitoring.	The deceleration allowed via the cruise control has been exceeded.
2339	1	Variant coding error stored	Checksum error
2339	2	Variant coding error stored	Checksum error
2339	4	Variant coding error stored	Invalid data record selection

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2339	8	Variant coding error stored	Invalid coding for vehicle equipment
2340	8	Temporary event	The computed injection quantity error
2342	4	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2342	8	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2343	1	Crankshaft sensor (B73) signal error	Engine speed signal is implausible.
2344	8	Automatic transmission EGS [TCM] kick-down switch (B97)	The CAN signal from the kick down switch is implausible.
2347	1	Variant coding error stored	An error occurred during variant coding. Manual Transmission has been coded as Automatic Transmission.
2347	2	Variant coding error stored	An error occurred during variant coding. Automatic Transmission has been coded as Manual Transmission.
2347	4	Variant coding error stored	An error occurred during variant coding. Write process to EEPROM
2347	8	Variant coding error stored	An error occurred during variant coding. CAN-Bus open circuit during variant coding
2350	1	CDI [ECM] control unit (A94) voltage supply	Power supply voltage is too high.
2351	2	CDI [ECM] control unit (A94) voltage supply	Power supply voltage is too low.
2352	1	Injection	Torque limit value reached as a result of full load operation
2352	2	Injection	Maximum limit quantity reached
2352	4	Injection	Over-run protection. CDI [ECM] control unit detects engine speed too high.
2353	8	Oxygen sensor (R25) error	The oxygen sensor returns implausible CAN signal values.
2354	8	Oxygen sensor (R25) error	CDI [ECM] control unit (A94) internal error reported from the oxygen sensor (R25) output

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAS	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBR	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

<b>Fault Code</b>	<b>Sub Fault</b>	<b>Monitored Variable or Component (MB Component Number)</b>	<b>Detail, cause, or remedy</b>
2355	1	Actuation of exhaust gas recirculation.	Exhaust gas recirculation rate is too high.
2355	2	Actuation of exhaust gas recirculation.	Exhaust gas recirculation rate is too low.
2356	8	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2357	8	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2358	8	CDI [ECM] control unit (A94)	Internal fault. Replace CDI [ECM] control unit
2359	1	Charge pressure control	Charge pressure is too low.
2359	2	Charge pressure control	Charge pressure is too high.
2366	2	Oxygen sensor (R25)	Oxygen sensor (R25) fault or feed line interruption.
2500	4	Fuel management valve (Y93)	Open circuit
2500	8	Fuel management valve (Y93)	CDI [ECM] control unit (A94) thermal overload
2501	1	Fuel management valve (Y93)	Short circuit to voltage (+)
2502	2	Rail pressure control valve (Y92)	The rail pressure control valve (Y92) has a short to voltage (+) or ground (-)
2510	1	Boost pressure regulator (Y100)	Short circuit to ground (-)
2510	2	Boost pressure regulator (Y100)	Short circuit to ground (-)
2511	1	Exhaust gas recirculation positioner (Y85)	Short circuit to ground (-)
2511	2	Exhaust gas recirculation positioner (Y85)	Short circuit to ground (-)
2513	1	Inlet port shutoff actuator motor (Y101)	Positioner signals
2513	2	Inlet port shutoff actuator motor (Y101)	Positioner signals fault (message through ground (-) keying).
2514	1	Crankcase ventilation heater (R41)	Short circuit to voltage (+)
2514	2	Crankcase ventilation heater (R41)	Short circuit to ground (-)

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2514	4	Crankcase ventilation heater (R41)	Open circuit
2514	8	Crankcase ventilation heater (R41)	CDI [ECM] control unit (A94) thermal overload
2521	8	Starter Error	A start attempt has been made without starter actuation
2526	1	Boost pressure regulator (Y100)	Short circuit to voltage (+)
2526	2	Boost pressure regulator (Y100)	Short circuit to ground (-)
2526	4	Boost pressure regulator (Y100)	Open circuit
2526	8	Boost pressure regulator (Y100)	CDI [ECM] control unit (A94) thermal overload
2527	1	Exhaust gas recirculation positioner (Y85)	Short circuit to voltage (+)
2527	2	Exhaust gas recirculation positioner (Y85)	Short circuit to ground (-)
2527	4	Exhaust gas recirculation positioner (Y85)	Open circuit
2527	8	Exhaust gas recirculation positioner (Y85)	CDI [ECM] control unit (A94) thermal overload
2530	1	Inlet port shutoff actuator motor (Y101)	Short circuit to voltage (+)
2530	2	Inlet port shutoff actuator motor (Y101)	Short circuit to ground (-)
2530	4	Inlet port shutoff actuator motor (Y101)	Open circuit
2530	8	Inlet port shutoff actuator motor (Y101)	Fault in engine control unit input circuit or connection
2531	1	Zero quantity calibration for the injector of cylinder 1	Measuring point 0: Readout value too large.
2531	2	Zero quantity calibration for the injector of cylinder 1	Measuring point 0: Readout value too small.

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	PSM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

<b>Fault Code</b>	<b>Sub Fault</b>	<b>Monitored Variable or Component (MB Component Number)</b>	<b>Detail, cause, or remedy</b>
2531	4	Zero quantity calibration for the injector of cylinder 1	Measuring point 1: Readout value too large.
2531	8	Zero quantity calibration for the injector of cylinder 1	Measuring point 1: Readout value too small.
2532	1	Zero quantity calibration for the injector of cylinder 2	Measuring point 0: Readout value too large.
2532	2	Zero quantity calibration for the injector of cylinder 2	Measuring point 0: Readout value too small.
2532	4	Zero quantity calibration for the injector of cylinder 2	Measuring point 1: Readout value too large.
2532	8	Zero quantity calibration for the injector of cylinder 2	Measuring point 1: Readout value too small.
2533	1	Zero quantity calibration for the injector of cylinder 3	Measuring point 0: Readout value too large.
2533	2	Zero quantity calibration for the injector of cylinder 3	Measuring point 0: Readout value too small.
2533	4	Zero quantity calibration for the injector of cylinder 3	Measuring point 1: Readout value too large.
2533	8	Zero quantity calibration for the injector of cylinder 3	Measuring point 1: Readout value too small.
2534	1	Zero quantity calibration for the injector of cylinder 4	Measuring point 0: Readout value too large.
2534	2	Zero quantity calibration for the injector of cylinder 4	Measuring point 0: Readout value too small.
2534	4	Zero quantity calibration for the injector of cylinder 4	Measuring point 1: Readout value too large.
2534	8	Zero quantity calibration for the injector of cylinder 4	Measuring point 1: Readout value too small.
2535	1	Zero quantity calibration for the injector of cylinder 5	Measuring point 0: Readout value too large.
2535	2	Zero quantity calibration for the injector of cylinder 5	Measuring point 0: Readout value too small.
2535	4	Zero quantity calibration for the injector of cylinder 5	Measuring point 1: Readout value too large.
2535	8	Zero quantity calibration for the injector of cylinder 5	Measuring point 1: Readout value too small.
2537	1	Pre-glow fault	Short circuit to voltage (+)

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2537	2	Pre-glow fault	Short circuit to ground (-)
2537	8	Pre-glow fault	General error
2538	2	Pre-glow time output stage module (D4) is not operative.	The glow time output stage
2538	4	Pre-glow time output stage module (D4) is not operative.	Communication fault
2538	8	Pre-glow time output stage module (D4) is not operative.	Excess temperature
2567	1	Injector monitoring	Leakage in fuel system
2567	2	Injector monitoring	Faulty ignition at cylinder 1
2568	1	Injector monitoring	Leakage in fuel system
2568	2	Injector monitoring	Faulty ignition at cylinder 2
2569	1	Injector monitoring	Leakage in fuel system
2569	2	Injector monitoring	Faulty ignition at cylinder 3
2570	1	Injector monitoring	Leakage in fuel system
2570	2	Injector monitoring	Faulty ignition at cylinder 4
2571	1	Injector monitoring	Leakage in fuel system
2571	2	Injector monitoring	Faulty ignition at cylinder 5
2573	4	Injection fault	Leakage in fuel system
2574	1	Injector actuation fault	Injection system fault
2574	2	Injector actuation fault	Injection system fault

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
COI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2575	1	Injector actuation fault	Injection system fault
2575	2	Injector actuation fault	Injection system fault
2576	1	Injector actuation fault	Injection system fault
2576	2	Injector actuation fault	Injection system fault
2577	1	Injector actuation fault	Injection system fault
2577	2	Injector actuation fault	Injection system fault
2578	1	Injector actuation fault	Injection system fault
2578	2	Injector actuation fault	Injection system fault
2600	1	Mass air-flow sensor (B101)	The signal voltage is too high.
2600	2	Mass air-flow sensor (B101)	The signal voltage is too low.
2606	1	Synchronization error between camshaft sensor and crankshaft sensor.	Synchronization is not possible.
2623	1	Adaptation fault	The permissible limit value for the air mass was exceeded.
2624	1	Adaptation fault	The permissible limit value for the air mass was exceeded.
2625	8	Fuel temperature sensor (B30)	The signal from the fuel temperature sensor (B30) is faulty
2633	1	Mass air flow sensor (B101)	The signal from the mass air flow sensor (B101) is faulty
2634	1	Rail pressure monitoring via volume control valve	Low fuel pressure or a leak in low pressure side has been reported.
2635	1	Rail pressure monitoring via volume control valve	Low fuel pressure or a leak in low pressure side has been reported.
2636	1	Rail pressure monitoring via volume control valve	Low fuel pressure or a leak in low pressure side has been reported.
2637	1	Rail pressure monitoring via pressure control valve	Low fuel pressure or a leak in low pressure side has been reported.
2638	1	Rail pressure monitoring via pressure control valve	High pressure side fault or internal leak in fuel rail pressure control valve (Y92)

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Fault Code	Sub Fault	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
2639	1	Rail pressure monitoring via pressure control valve	High pressure side fault or internal leak in fuel rail pressure control valve (Y92)
2640	1	Rail pressure monitoring via pressure control valve	Low fuel pressure or a leak in low pressure side has been reported.
2670	8	Monitoring of the temperature sensors	Comparative monitoring or grouped monitoring error with fuel temperature sensor (B30) and/or coolant temperature sensor (B16)
2671	8	Monitoring of the air intake	The air mass is outside the computed specified value.
2672	8	Mass air-flow sensor (B101)	The signal from air mass flow sensor (B101) is faulty
2673	4	Coolant temperature sensor (B16)	The signal from coolant temperature sensor (B16) is faulty
2679	4	Water separator fill level sensor (B129)	The signal from water separator fill level sensor (B129) at fuel filter is faulty
2817	8	Engine off time.	Specified time not observed

NOTES:

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	W/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	W/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

W/A= Not Applicable for US Models

## EGS AUTOMATIC TRANSMISSION

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KJ	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## EGS Automatic Transmission Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): EGS/ETC

Chrysler/Dodge: TCM

**NOTE:** Mercedes-Benz Automatic Transmission 722.6 (NAG1) was installed in all North American models from 2002-2006. It was optional for most Mercedes-Benz models in other markets.

### Fault Code List:

Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P2000	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P2001	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P2002	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P2003	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P2004	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P2005	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P2006	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P2007	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P2008	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P2009	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P200A	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	WA	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	WA	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

WA= Not Applicable for US Models

Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P200B	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P200C	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P200D	EGS [TCM] control unit (A4) faulty.	Replace EGS [TCM] control unit
P2010	EGS [TCM] control unit (A4) faulty.	Set EGS [TCM] control unit parameters
P2011	EGS [TCM] control unit coding problem: Invalid module version for shift valve body.	Replace EGS [TCM] control unit with one that matches shift valve body. Note: This fault may occur if a new transmission is installed without a matching new EGS [TCM] control unit.
P2012	EGS [TCM] control unit (A4) faulty.	Checksum value not entered. Replace EGS [TCM] control unit
P2013	EGS [TCM] control unit (A4) faulty.	Shift valve supply voltage circuit fault
P2100	Shift valve 1-2 and 4-5 shift (X106b1) or shift valve assembly (X106) is faulty.	<ul style="list-style-type: none"> <li>a. Cable A4.2/14 to X106x1/13 has a short circuit to voltage (+).</li> <li>b. Cable A4.2/38 to X106x1/6 has an open circuit.</li> <li>c. Solenoid (X106b1) is faulty.</li> <li>d. Valve body X106 is defective.</li> </ul> <p>Note: In older service literature, shift valve 1-2 and 4-5 (X106b1) is also referred to as Y3/6y3 solenoid.</p>
P2101	Shift valve 1-2 and 4-5 shift (X106b1) or shift valve assembly (X106) is faulty.	<p>Short circuit to ground (-).</p> <ul style="list-style-type: none"> <li>a. Cable A4.2/14 to X106x1/13 has a short circuit to ground (-) or open circuit.</li> <li>b. Cable A4.2/38 to X106x1/6 has a short circuit to ground (-) or open circuit.</li> <li>c. Solenoid (X106b1) is faulty.</li> <li>d. Valve body (X106) is defective.</li> </ul> <p>Note: In older service literature, shift valve 1-2 and 4-5 (X106b1) is also referred to as Y3/6y3 solenoid.</p>
P2102	Shift valve 2-3 shift (X106b2) or shift valve assembly (X106) is faulty.	<ul style="list-style-type: none"> <li>a. Cable A4.2/16 to X106x1/8 has a short circuit to voltage (+).</li> <li>b. Cable A4.2/38 to X106x1/6 has an open circuit.</li> <li>c. Solenoid (X106b2) is faulty.</li> <li>d. Valve body (X106) is defective.</li> </ul> <p>Note: In older service literature, shift valve 2-3 (X106b2) is also referred to as Y3/6y5 solenoid.</p>

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Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P2103	Shift valve 2-3 shift (X106b2) or shift valve assembly (X106) is faulty.	<p>Short circuit to ground (-).</p> <ul style="list-style-type: none"> <li>a. Cable A4.2/16 to X106x1/8 has a short circuit to ground (-) or open circuit.</li> <li>b. Cable A4.2/38 to X106x1/6 has a short circuit to ground (-) or open circuit.</li> <li>c. Solenoid (X106b2) is faulty.</li> <li>d. Valve body (X106) is defective.</li> </ul> <p>Note: In older service literature, shift valve 2-3 (X106b2) is also referred to as Y3/6y5 solenoid.</p>
P2104	Shift valve 3-4 shift (X106b3) or shift valve assembly (X106) is faulty.	<ul style="list-style-type: none"> <li>a. Cable A4.2/15 to X106x1/9 has a short circuit to voltage (+).</li> <li>b. Cable A4.2/38 to X106x1/6 has an open circuit.</li> <li>c. Solenoid (X106b3) is faulty.</li> <li>d. Valve body X106 is defective.</li> </ul> <p>Note: In older service literature, shift valve 3-4 (X106b3) is also referred to as Y3/6y4 solenoid.</p>
P2105	Shift valve 3-4 shift (X106b3) or shift valve assembly is faulty.	<p>Short circuit to ground (-).</p> <ul style="list-style-type: none"> <li>a. Cable A4.2/15 to X106x1/9 has a short circuit to ground (-) or open circuit.</li> <li>b. Cable A4.2/38 to X106x1/6 has a short circuit to ground (-) or open circuit.</li> <li>c. Solenoid (X106b3) is faulty.</li> <li>d. Valve body (X106) is defective.</li> </ul> <p>Note: In older service literature, shift valve 3-4 (X106b3) is also referred to as Y3/6y4 solenoid.</p>
P2106	Torque converter lock-up clutch solenoid valve (X106b4) is faulty	<ul style="list-style-type: none"> <li>a. Cable A4.2/17 to X106x1/11 has a short circuit to ground (-) or open circuit; or short circuit to voltage (+).</li> <li>b. Solenoid (X106b4) is faulty.</li> <li>c. Valve body (X106) is defective.</li> </ul> <p>Note: In older service literature, torque converter lock-up clutch solenoid valve (X106b4) is also referred to as Y3/6y6 PWM solenoid.</p>
P2107	Modulating pressure control valve (X106b8) is faulty	<ul style="list-style-type: none"> <li>a. Cable A4.2/36 to X106x1/2 has a short circuit to ground (-) or open circuit, or short circuit to voltage (+).</li> <li>b. Solenoid (X106b8) is faulty.</li> <li>c. Valve body (X106) is defective.</li> </ul> <p>Note: In older service literature, modulating pressure control valve (X106b8) is also referred to as Y3/6y1 solenoid.</p>

**Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:**

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	NEM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P2108	Shift pressure control valve (X106b9) is faulty	<ul style="list-style-type: none"> <li>a. Cable A4.2/37 to X106x1/10 has a short circuit to ground (-) or open circuit, or short circuit to voltage (+).</li> <li>b. Solenoid (X106b9) is faulty.</li> <li>c. Valve body (X106) is defective.</li> </ul> <p>Note: In older service literature, shift pressure control valve (X106b9) is also referred to as Y3/6y2 solenoid.</p>
P2109	Reverse/Parking lock solenoid fault	<p>Short circuit or open circuit. Reverse/Parking lock solenoid does not operate.</p> <p>Note: In older service literature, reverse/park lock is also referred to as Y66/1</p>
P210A	Starter lockout relay output stage faulty	<p>Cable to starter from lockout relay has an open circuit.</p>
P2200	Speed sensor 2 (X106b7) is faulty	<ul style="list-style-type: none"> <li>a. Cable A4.2/12 to X106x1/3 has a short circuit to ground (-) or open circuit, or short circuit to voltage (+).</li> <li>b. Cable A4.2/13 to X106x1/7 has an open circuit.</li> <li>c. Cable A4.2/33 to X106x1/12 has an open circuit.</li> <li>d. Speed sensor 2 (X106b7) is faulty.</li> <li>e. Valve body (X106) is defective.</li> </ul> <p>Note: In older service literature, speed sensor 2 (X106b7) is also referred to as Y3/6n2.</p>
P2203	Speed sensor 3 (X106b5) is faulty	<ul style="list-style-type: none"> <li>a. Cable A4.2/35 to X106x1/1 has a short circuit to ground (-) or open circuit, or short circuit to voltage (+).</li> <li>b. Cable A4.2/13 to X106x1/7 has an open circuit.</li> <li>c. Cable A4.2/33 to X106x1/12 has an open circuit.</li> <li>d. Speed sensor (X106b5) is faulty.</li> <li>e. Valve body (X106) is defective.</li> </ul> <p>Note: In older service literature, speed sensor 3 (X106b5) is also referred to as Y3/6n3.</p>
P2206	Output stage fault speed sensor group	<p>Signal not present from speed sensor 2 (X106b7) and/or speed sensor 3 (X106b5).</p> <p>Note: In older service literature, speed sensor 2 (X106b7) is also referred to as Y3/6n2 and speed sensor 3 (X106b5) is also referred to as Y3/6n3</p>
P2207	Output stage fault speed sensor group	<p>Signal not plausible from speed sensor 2 (X106b7) and/or speed sensor 3 (X106b5).</p> <p>Note: In older service literature, speed sensor 2 (X106b7) is also referred to as Y3/6n2 and speed sensor 3 (X106b5) is also referred to as Y3/6n3</p>
P220A	Speed sensor 2 (X106b7) and speed sensor 3 (X106b5) signal comparison not plausible	<p>Shift valve body (X106) is defective. Replace shift valve body (X106).</p> <p>Note: In older service literature, speed sensor 2 (X106b7) is also referred to as Y3/6n2 and speed sensor 3 (X106b5) is also referred to as Y3/6n3.</p>

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Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P220B	Speed signal comparison fault	Speed sensor 2 (X106b7) and speed sensor 3 (X106b5) over speed. Shift valve body (X106) is defective. Replace shift valve body (X106).  Note: In older service literature, speed sensor 2 (X106b7) is also referred to as Y3/6n2 and speed sensor 3 (X106b5) is also referred to as Y3/6n3.
P2210	EWM [SLA] gear shift selector module coding faulty	Parameters for gear shift lever are invalid. Correct coding or replace gear shift lever control unit.
P2211	EWM [SLA] gear shift selector position signal fault	Gear position of shift lever is implausible. Parameters for gear shift lever are invalid. Correct coding or replace gear shift lever control unit.
P2212	EWM [SLA] gear shift selector module coding faulty.	Parameters for gear shift lever are invalid. Correct coding or replace gear shift lever control unit.
P2220	Starter lock-out contact/transmission oil temperature sensor (X106b6) is faulty	<ul style="list-style-type: none"> <li>a. Cable A4.2/34 to X106x1/4 has a short circuit to ground (-).</li> <li>b. Transmission oil temperature sensor/starter lock-out contact (X106b6) is faulty.</li> <li>c. Valve body (X106) is defective.</li> </ul> <p>Note: (X106b6) functions for oil temperature and starter lock-out.</p> <p>Note: In older service literature, functions are listed separately and oil temperature sensor (X106b6) is also referred to as Y3/6b1 and starter lock-out contact (X106b6) is also referred to as Y3/6s1. They are the same component.</p>
P2221	Starter lock-out contact/transmission oil temperature sensor (X106b6) is faulty	<ul style="list-style-type: none"> <li>a. Signal output not plausible.</li> <li>b. Cable A4.2/34 to X106x1/4 has an open circuit.</li> <li>c. Cable A4.2/33 to X106x1/12 has an open circuit.</li> <li>d. Transmission oil temperature sensor/starter lock-out contact (X106b6) is faulty.</li> <li>e. Valve body (X106) is defective.</li> </ul> <p>Note: (X106b6) functions for oil temperature and starter lock-out.</p> <p>Note: In older service literature, functions are listed separately and oil temperature sensor (X106b6) is also referred to as Y3/6b1 and starter lock-out contact (X106b6) is also referred to as Y3/6s1. They are the same component.</p>

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

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APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CD/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

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Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P2222	Starter lock-out contact/transmission oil temperature sensor (X106b6) is faulty	<ul style="list-style-type: none"> <li>a. Signal output is intermittent.</li> <li>b. Cable A4.2/34 to X106x1/4 has corrosion, a loose contact, or damage.</li> <li>c. Cable A4.2/33 to X106x1/12 has corrosion, a loose contact, or damage.</li> <li>d. Transmission oil temperature sensor/starter lock-out contact (X106b6) is faulty.</li> <li>e. Valve body (X106) is defective.</li> </ul> <p>Note: (X106b6) functions for oil temperature and starter lock-out.</p> <p>Note: In older service literature, functions are listed separately and oil temperature sensor (X106b6) is also referred to as Y3/6b1 and starter lockout contact (X106b6) is also referred to as Y3/6s1. They are the same component.</p>
P2451	Automatic Variant Coding is incorrect. Engine control unit coding does not match Automatic Transmission Control Unit Coding.	<p>Coding incorrect for Engine control unit. Automatic transmission coded as manual transmission or SSG. Correct coding.</p> <p>Note: For US/Canada models, the only valid coding selection is Automatic Transmission.</p>
P2500	Improper gear ratio registered for engine speed	Transmission oil level is too low. Check for leaks and refill to correct level
P2501	Engine speed sensor signal indicates engine speed too high	Check CDI [ECM] control unit for fault codes
P2502	Gear not engaged, or transmission is slipping	<ul style="list-style-type: none"> <li>a. Wrong axle ratio set in control unit coding parameters.</li> <li>b. Transmission oil level is too low.</li> <li>c. Bowden cable is not set correctly or is damaged (gear lever control).</li> </ul>
P2507	Speed sensor over limit (Over-speed)	Shift valve body (X106) is defective.
P2508	Speed sensor over limit (Over-speed)	Shift valve body (X106) is defective.
P2510	Torque converter lockup clutch (X106b4) closing cycle impermissible	<p>EGS [TCM] control unit will not shut off. Erase fault code and conduct a road test. If fault reoccurs, replace lock-up clutch</p> <p>Note: In older service literature, torque converter lockup clutch (X106b4) is also referred to as PWM solenoid Y3/6y6.</p>
P2511	Torque converter lockup clutch (X106b4) has excessive power consumption	<p>Thermal overload of valve body. Erase fault code and conduct a road test. If fault reoccurs, replace lock-up clutch. Replace transmission fluid.</p> <p>Note: In older service literature, torque converter lockup clutch (X106b4) is also referred to as PWM solenoid Y3/6y6.</p>
P2512	Torque converter lockup clutch (X106b4) cannot be actuated	<p>Erase fault code and conduct a road test. If fault reoccurs, replace lock-up clutch</p> <p>Note: In older service literature, torque converter lockup clutch (X106b4) is also referred to as PWM solenoid Y3/6y6.</p>

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Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P2520	Transmission protection signal output is intermittent.	<p>Engine torque reduced and limp home mode active.</p> <ol style="list-style-type: none"> <li>a. Erase fault code and conduct a road test.</li> <li>b. If fault reoccurs, then CDI [ECM] control unit may be defective, or CAN-Bus cables defective for CDI [ECM] control unit.</li> <li>c. If fault codes are present in CDI [ECM] control unit, fix problems there first.</li> </ol>
P2560	First Gear: Transmission slipping or gear implausible	<p>Transmission oil level is too low, or brake disk B2 is worn, or shift valve 1-2 and 4-5 shift (X106b1) is faulty.</p> <p>Note: in older service literature, shift valve 1-2 and 4-5 (X106b1) is also referred to as Y3/6y3 solenoid.</p>
P2561	Second Gear: Transmission slipping or gear implausible	<p>Transmission oil level is too low, or clutch disk K1 is worn, or shift valve 1-2 and 4-5 shift (X106b1) is faulty.</p> <p>Note: In older service literature, shift valve 1-2 and 4-5 (X106b1) is also referred to as Y3/6y3 solenoid.</p>
P2562	Third Gear: Transmission slipping or gear implausible	<p>Transmission oil level low, or clutch disk K2 worn, or shift valve 2-3 (X106b2) is faulty.</p> <p>Note: In older service literature, shift valve 2-3 (X106b2) is also referred to as Y3/6y5 solenoid.</p>
P2563	Fourth Gear: Transmission slipping or gear implausible	<p>Transmission oil level is too low, or clutch disk K3 is worn, or shift valve 3-4 (X106b3) is faulty.</p> <p>Note: In older service literature, shift valve 3-4 is also referred to as Y3/6y4 solenoid.</p>
P2564	Fifth Gear: Transmission slipping or gear implausible	<p>Transmission oil level is too low, or brake band B2 is worn, or shift valve 1-2 and 4-5 shift (X106b1) is faulty.</p> <p>Note: In older service literature, shift valve 1-2 and 4-5 is also referred to as Y3/6y3 solenoid.</p>
P2600	Power supply faulty (Power Relay Terminal 87)	<ol style="list-style-type: none"> <li>a. Undervoltage.</li> <li>b. Battery discharged or defective.</li> <li>c. Fuse F138 to EGS [TCM] power relay K138, or wiring, is faulty.</li> <li>d. Cable A4.1/29 from EGS [TCM] control unit to K138/5 relay is faulty.</li> <li>e. Power supply cable to F138 is faulty.</li> </ol>
P2601	Power supply faulty (Power Relay Terminal 87)	<ol style="list-style-type: none"> <li>a. Overvoltage</li> <li>b. The alternator or voltage regulator is faulty.</li> <li>c. Test charging system.</li> </ol>

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ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

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Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P2602	Shift valve body (X106) power supply faulty	<ul style="list-style-type: none"> <li>a. Cable A4.2/14 to X106x1/13 has a short circuit to voltage (+).</li> <li>b. Cable A4.2/15 to X106x1/9 has a short circuit to voltage (+).</li> <li>c. Cable A4.2/16 to X106x1/8 has a short circuit to voltage (+).</li> <li>d. Cable A4.2/17 to X106x1/11 has a short circuit to voltage (+).</li> <li>e. Cable A4.2/36 to X106x1/2 has a short circuit to voltage (+).</li> <li>f. Cable A4.2/37 to X106x1/10 has a short circuit to voltage (+).</li> <li>g. Cable A4.2/38 to X106x1/6 has a short circuit to ground (-).</li> <li>h. Valve body X106 is defective.</li> </ul>
P2603	Sensor supply voltage.	<p>No voltage.</p> <ul style="list-style-type: none"> <li>a. Cable A4.2/13 to X106x1/7 has a short circuit to ground (-).</li> <li>b. Valve body X106 is defective.</li> </ul>
P260E	Sensor supply voltage	<p>Undervoltage.</p> <ul style="list-style-type: none"> <li>a. Battery discharged or defective.</li> <li>b. Fuse F138 to EGS [TCM] power relay K138, or wiring, is faulty.</li> <li>c. Cable A4.1/29 from EGS [TCM] control unit to K138/5 relay is faulty.</li> <li>d. Power supply cable to F138 is faulty.</li> </ul>
P260F	Sensor supply voltage	<p>Overvoltage.</p> <ul style="list-style-type: none"> <li>a. The alternator or voltage regulator is faulty.</li> <li>b. Test charging system.</li> </ul>

### CAN-Bus Network Event Code List:

Event Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P2030	General Error	A general CAN-Bus network error has occurred
P2503	CAN signal: Gear comparison negative several times or gear not reached	Erase fault code and conduct a road test. If fault reoccurs, replace shift valve body (X106).
P2226	CAN signal: Transmission control unit thermal overload	The transmission fluid has boiled. Replace transmission fluid and inspect for damaged seals to avoid further damage
P2300	CAN signal: General fault	CAN-Bus signal offline. Inspect CAN-Bus wiring for fault
P2301	CAN signal: General fault	CAN-Bus signal offline. Inspect CAN-Bus wiring for fault

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Event Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P2310	CAN-Bus network event: ABS/ASR or ESP [CAB] Brake/Traction control unit	Signal offline or no signal a. Inspect CAN-Bus wiring for fault. b. Brake/Traction control unit may have fault codes present. c. If ABS/ASR or ESP [CAB] control unit has fault codes, correct problems there first.
P2311	CAN-Bus network event: Engine control unit	Signal offline or no signal a. Inspect CAN-Bus wiring for fault. b. Engine control unit may have fault codes present. c. If engine control unit has fault codes, correct problems there first.
P2312	CAN signal: Coolant temperature	Engine coolant temperature value is missing or implausible a. Inspect CAN-Bus wiring for fault. b. Engine control unit may have fault codes present. c. If engine control unit has fault codes, correct problems there first.
P2313	CAN-Bus network event: EWM [SLA] gear shift control unit.	Gear shift lever position implausible or no signal Shift lever gear mismatch with transmission gear. a. Inspect CAN-Bus wiring for fault. b. EWM [SLA] gear lever control unit may have fault codes present. c. If gear lever control unit has fault codes, correct problems there first.
P2314	CAN-Bus network event: EIS control unit	Signal offline or no signal a. Inspect CAN-Bus wiring for fault. b. EIS control unit may have fault codes present. c. If EIS control unit has fault codes, correct problems there first.  Note: NOT APPLICABLE USA/CANADA.
P2315	CAN-Bus network event: KI [IC] instrument cluster control unit	Signal offline or no signal a. Inspect CAN-Bus wiring for fault. b. Instrument Cluster control unit may have fault codes present. c. If IC control unit has fault codes, correct problems there first.
P2316	CAN-Bus network event: HZR [ATC] Control Unit	Signal offline or no signal a. Inspect CAN-Bus wiring for fault. b. Heater and A/C control unit may have fault codes present. c. If HZR [ATC] control unit has fault codes, correct problems there first.
P2317	CAN-Bus network event: General fault	a. Inspect CAN-Bus wiring for fault. b. The vehicle power may be fluctuating due to voltage regulator fault. c. Inspect charging system.

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Event Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P2318	CAN-Bus network event: EWM [SLA] gear shift control unit	Signal offline or no signal a. Inspect CAN-Bus wiring for fault. b. Gear lever control unit may have fault codes present. c. If EWM [SLA] gear lever control unit has fault codes, correct problems there first.
P2322	CAN signal: Engine control unit	No CAN message from Engine control unit or message faulty a. Inspect CAN-Bus wiring for fault. b. Engine control unit may have fault codes present. c. If engine control unit has fault codes, correct problems there first.
P2330	CAN-Bus network event: ABS/ASR or ESP [CAB] brake/traction control unit	Signal offline or no signal a. Inspect CAN-Bus wiring for fault. b. Brake/Traction control unit may have fault codes present. c. If ABS/ASR OR ESP [CAB] control unit has fault codes, correct problems there first.
P2331	CAN-Bus network message transmission fault	CAN communication from EGS [TCM] to engine control unit is faulty a. Inspect CAN-Bus wiring for fault. b. Engine control unit may have fault codes present. c. If engine control unit has fault codes, correct problems there first.
P2332	CAN-Bus network message transmission fault	CAN communication from EGS [TCM] to engine control unit is faulty d. Inspect CAN-Bus wiring for fault. e. Engine control unit may have fault codes present. f. If engine control unit has fault codes, correct problems there first.
P2333	CAN-Bus network message transmission fault	CAN communication from EGS [TCM] to EWM [SLA] control unit is faulty a. Inspect CAN-Bus wiring for fault. b. EWM [SLA] gear lever control unit may have fault codes present. c. If gear lever control unit has fault codes, correct problems there first.
P2334	CAN-Bus network message transmission fault	CAN communication from EGS [TCM] to EIS control unit is faulty a. Inspect CAN-Bus wiring for fault. b. EIS control unit may have fault codes present. c. If EIS control unit has fault codes, correct problems there first.  Note: NOT APPLICABLE USA/CANADA.
P2235	CAN-Bus network message transmission fault	CAN communication with KI [IC] instrument cluster control unit a. Inspect CAN-Bus wiring for fault. b. Instrument Cluster control unit may have fault codes present. c. If KI [IC] control unit has fault codes, correct problems there first.

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Event Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P2336	CAN-Bus network message transmission fault	<p>CAN communication with KI [IC] instrument cluster control unit</p> <p>EIS CAN signal missing</p> <ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring for fault.</li> <li>Instrument Cluster control unit may have fault codes present.</li> <li>If KI [IC] control unit has fault codes, correct problems there first.</li> <li>EIS may have fault codes present.</li> <li>If EIS control unit has fault codes, correct problems there first.</li> </ol> <p>Note: EIS NOT APPLICABLE USA/CANADA VERSIONS.</p>
P2337	CAN-Bus signal fault: EWM [SLA]	<p>No CAN communication with EWM [SLA] selector lever control unit</p> <ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring for fault.</li> <li>Gear lever control unit may have fault codes present.</li> <li>If gear lever control unit has fault codes, correct problems there first.</li> </ol>
P2338	CAN-Bus signal fault: EWM [SLA]	<p>No CAN communication with EWM [SLA] selector lever control unit</p> <ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring for fault.</li> <li>Gear lever control unit may have fault codes present.</li> <li>If gear lever control unit has fault codes, correct problems there first.</li> </ol>
P233B	CAN-Bus signal fault: Engine control unit	<p>No CAN message from engine control unit or message faulty</p> <ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring for fault.</li> <li>Engine control unit may have fault codes present.</li> <li>If Engine control unit has fault codes, correct problems there first.</li> </ol>
P240D	CAN signal: CAN communication General Fault	<ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring for fault.</li> <li>Brake/Traction control unit may have fault codes present.</li> <li>If ABS/ASR or ESP [CAB] control unit has fault codes, correct problems there first.</li> </ol>
P2400	CAN signal: Right rear wheel speed signal not plausible	<ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring for fault.</li> <li>Brake/Traction control unit may have fault codes present.</li> <li>If ABS/ASR or ESP [CAB] control unit has fault codes, correct problems there first.</li> </ol>
P2401	CAN signal: Left rear wheel speed signal not plausible	<ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring for fault.</li> <li>Brake/Traction control unit may have fault codes present.</li> <li>If ABS/ASR or ESP [CAB] control unit has fault codes, correct problems there first.</li> </ol>
P2402	CAN signal: Right front wheel speed signal not plausible	<ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring for fault.</li> <li>Brake/Traction control unit may have fault codes present.</li> <li>If ABS/ASR or ESP [CAB] control unit has fault codes, correct problems there first.</li> </ol>
P2403	CAN signal: Left front wheel speed signal not plausible	<ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring for fault.</li> <li>Brake/Traction control unit may have fault codes present.</li> <li>If ABS/ASR or ESP [CAB] control unit has fault codes, correct problems there first.</li> </ol>

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P2404	CAN signal: Brake light switch signal not plausible	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. Brake/Traction control unit may have fault codes present.</li> <li>c. If ABS/ASR or ESP [CAB] control unit has fault codes, correct problems there first.</li> </ul>
P2405	CAN signal: Pedal position sensor signal not plausible	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. Engine control unit may have fault codes present.</li> <li>c. If Engine control unit has fault codes, correct problems there first.</li> </ul>
P2406	CAN signal: The engine torque value from the engine control unit is not plausible	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. Engine control unit may have fault codes present.</li> <li>c. If Engine control unit has fault codes, correct problems there first.</li> </ul>
P2407	CAN signal: Specified engine input torque value is not plausible	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. Engine control unit may have fault codes present.</li> <li>c. If Engine control unit has fault codes, correct problems there first.</li> </ul>
P2408	CAN signal: The minimum engine torque value from the engine control unit is not plausible	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. Engine control unit may have fault codes present.</li> <li>c. If Engine control unit has fault codes, correct problems there first.</li> </ul>
P2409	CAN signal: The maximum engine torque value from the engine control unit is not plausible	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. Engine control unit may have fault codes present.</li> <li>c. If Engine control unit has fault codes, correct problems there first.</li> </ul>
P240A	CAN signal: The engine speed signal from the engine control unit is not plausible or is missing	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. Engine control unit may have fault codes present.</li> <li>c. If Engine control unit has fault codes, correct problems there first.</li> </ul>
P240B	CAN signal: The engine temperature signal from the engine control unit is not plausible or is missing	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. Engine control unit may have fault codes present.</li> <li>c. If Engine control unit has fault codes, correct problems there first.</li> </ul>
P240C	CAN signal: Gear lever position signal from EWM (SLA) not plausible	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. Gear lever control unit may have fault codes present.</li> <li>c. If gear lever control unit has fault codes, correct problems there first.</li> </ul>
P240D	CAN signal: General CAN Communication fault	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. The vehicle power may be fluctuating due to a voltage regulator fault.</li> <li>c. Inspect charging system.</li> </ul>
P2450	CAN signal: No CAN message from Engine control unit or message is faulty	<ul style="list-style-type: none"> <li>a. Inspect CAN-Bus wiring for fault.</li> <li>b. Engine control unit may have fault codes present.</li> <li>c. If Engine control unit has fault codes, correct problems there first.</li> </ul>

NOTES:

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## EWM GEARSHIFT LEVER

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ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## EWM Gearshift Lever Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): EWM

Chrysler/Dodge: SLA

NOTE: Mercedes-Benz Automatic Transmission 722.6 (NAG1) with the "Touch-shift" gear shift lever EWM [SLA] control unit was installed in all North American models from 2002-2006. It was optional for most Mercedes-Benz models in other markets, except for MB chassis 905, where it is standard.

### Fault Code List:

Fault Code	Sub Fault	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
1000	001	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1000	003	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1000	004	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1750	000	Undervoltage Terminal 15	a. Battery voltage is low or there are corroded or loose terminals. b. Power supply cable may be defective.
1817	001	Backup lamp (E67e19 LEFT) and/or (E68e1 RIGHT) circuits	Short circuit to ground (-). a. Cable A40/10 to X217/1 has short circuit to ground (-). b. Cable X217/1 to J20 has short circuit to ground (-). c. Cable J20 to E67e19 has short circuit to ground (-). d. Cable J20 to E68e1 has short circuit to ground (-). e. Cable J20 to X232/3 has short circuit to ground (-).

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
AFS	WA	Navigation System (MB Only)	KI	IC	Instrument Cluster
AFS	WA	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SABSEEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Fault	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
1817	002	Backup lamp (E67e19 LEFT) and/or (E68e1 RIGHT) circuits	<p>Short circuit to voltage (+) or open circuit.</p> <ol style="list-style-type: none"> <li>Cable A40/10 to X217/1 has short circuit to voltage (+) or open circuit.</li> <li>Cable X217/1 to J20 has short circuit to voltage (+) or open circuit.</li> <li>Cable J20 to (E67e19) has short circuit to voltage (+) or open circuit.</li> <li>Cable J20 to (E68e1) has short circuit to voltage (+) or open circuit.</li> <li>Cable J20 to X232/3 has short circuit to voltage (+) or open circuit.</li> <li>Cable E67e19/6 to W6 ground point has open circuit.</li> <li>Cable E68e1/6 to W6 ground point has open circuit.</li> <li>Left reverse light bulb E67e19 is defective.</li> <li>Right reverse light bulb E68e1 is defective.</li> </ol> <p>Note: A common cause of this fault is that a SAE specification bulb or a bulb with an incorrect wattage has been fitted. Always use DIN (European) 21W/12V specification bulbs that meet Daimler approvals.</p>
1817	003	Backup lamp (E67e19 LEFT) and/or (E68e1 RIGHT) circuits	<p>Terminal 15 voltage supply faulty</p> <ol style="list-style-type: none"> <li>Fuse A12f4 is faulty.</li> <li>Cable A40.10 to E67e19/4 has a short circuit to ground (-).</li> <li>Cable A40.19 to E68e1/4 has a short circuit to ground (-).</li> <li>Cable A12/4.14 to X217/2 has an open circuit.</li> <li>Cable X217/2 to A40/9 has an open circuit.</li> </ol>
1832	000	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1833	000	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1856	001	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1856	002	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1856	003	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1856	004	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1856	005	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1856	006	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1860	000	CAN signal: Right rear wheel sensor	<p>No signal from right rear wheel speed sensor</p> <ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring for fault.</li> <li>Brake/Traction control unit may have fault codes present.</li> <li>If ABS control unit has fault codes, correct problems there first.</li> </ol>

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Fault Code	Sub Fault	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
1861	000	CAN signal: Left rear wheel sensor	No signal from left rear wheel speed sensor a. Inspect CAN-Bus wiring for fault. b. Brake/Traction control unit may have fault codes present. c. If ABS control unit has fault codes, correct problems there first.
1875	000	CAN-Bus network fault	CAN-Bus messages on transmit are missing or not valid a. Test CAN-Bus wiring and control units on CAN b. Cables between EWM and CAN-Bus connector may be shorted to each other, short to ground, or short to voltage (+).
1876	000	CAN-Bus network fault	Incorrect CAN message From ABS/ASR or ESP [CAB] control unit a. Inspect CAN-Bus wiring for fault. b. Brake/Traction control unit may have fault codes present. c. If ABS control unit has fault codes, correct problems there first.
1910	000	Overvoltage terminal 15	Check alternator and charging system voltage regulator
1912	001	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1912	002	EWM [SLA] control unit (A40) faulty	Replace EWM [SLA] control unit
1925	000	CAN signal: Brake torque value	Brake torque value is implausible a. Inspect CAN-Bus wiring for fault. b. Brake/Traction control unit may have fault codes present. c. If ABS/ASR or ESP [CAB] control unit has fault codes, correct problems there first.
1927	000	CAN signal: Stop lamp switch	Stop lamp switch signal is implausible a. Inspect CAN-Bus wiring for fault. b. Brake/Traction control unit may have fault codes present. c. If ABS/ASR or ESP [CAB] control unit has fault codes, correct problems there first.
1928	000	CAN signal: Message from ABS/ASR or ESP [CAB] control unit	CAN message from ABS/ASR or ESP [CAB] control unit is incorrect. a. Inspect CAN-Bus wiring for fault. b. Brake/Traction control unit may have fault codes present. c. If ABS/ASR or ESP [CAB] control unit has fault codes, correct problems there first.

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## CHASSIS SYSTEMS CONTROL UNITS

For 2000-2006 NAFTA Sprinters, depending on optional equipment, the chassis system control units may include:

1. ABS – Anti-Lock Brakes Control Unit
2. ESP – Anti-Lock Brakes and Stability Control Unit

Application Notes:

Dodge/Freightliner 2500: ESP applies from 2004 model year in conjunction with OM647 engine.

Mercedes-Benz 316 CDI: ESP applies from 2004 model year in conjunction with OM647 engine.

Dodge/Freightliner 3500: ESP does not apply to these vehicles.

Mercedes-Benz 416 CDI: ESP does not apply to these vehicles.

**IMPORTANT NOTE:** This fault code guide covers original factory installed control units and systems. Some vehicles may have either aftermarket or dealer installed components that are not covered by this book. For fault codes or troubleshooting instructions on aftermarket or dealer installed components, refer to the documentation provided by the manufacturer of the component.

## ABS2 ANTI-LOCK BRAKE SYSTEM

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	BSM	Anti-theft Alarm	ZUH	HEM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## ABS/ASR Antilock Brake + Traction Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): ABS/ASR

Chrysler/Dodge: CAB

### Application Notes:

- ABS/ASR can be fitted to Mercedes-Benz chassis 901.6\*, 902.6\*, 903.6\*, 904.6, and 905 from 2000-2006 (\*ESP was optional from 2004-2006)
- ABS/ASR can be fitted to Freightliner 2500 from 2002-2004; 3500 from 2002-2006
- ABS/ASR [CAB] can be fitted to Dodge 2500 from 2002-2004; 3500 from 2002-2006

### Fault Code List:

Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
P0000	Fault at retarder shutoff relay (If aux. Retarder is fitted)	Inspect retarder relay for faults. NOT APPLICABLE USA/CANADA
C1000	Traction system control unit internal fault	Erase Fault. If fault returns, replace ABS [CAB] control unit
C1010	Power supply: Supply voltage too low	Check battery voltage, fuses, and charging system
C1011	Power supply: Valve Relay Undervoltage	Check battery voltage, fuses, and charging system
C1012	Power Supply: Supply voltage too high	Check charging system voltage regulator
C1020	CAN-Bus network communication faulty	Inspect CAN-Bus wiring

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

<b>Fault Code</b>	<b>Monitored Variable Or Component (MB Component Number)</b>	<b>Detail, cause, or remedy</b>
C1021	CAN-Bus network communication with the EFP control unit	Inspect CAN-Bus wiring (NOT APPLICABLE USA/CANADA)
C1022	CAN-Bus network communication with the engine control unit faulty	Inspect CAN-Bus wiring
C1024	CAN-Bus network communication with the instrument cluster faulty	Inspect CAN-Bus wiring
C1100	Left front wheel speed sensor (B79)	Open or short circuit
C1101	Right front wheel speed sensor (B80)	Open or short circuit
C1102	Left rear wheel speed sensor (B81)	Open or short circuit
C1103	Right rear wheel speed sensor (B82)	Open or short circuit
C1104	Left front wheel speed sensor (B79) value implausible	Signal value out of permissible range
C1105	Right front wheel speed sensor (B80) value implausible	Signal value out of permissible range
C1106	Left rear wheel speed sensor (B81) Value implausible	Signal value out of permissible range
C1107	Right rear wheel speed sensor (B82) value implausible	Signal value out of permissible range
C1200	Stop light (brake light) switch	Brake pedal switch faulty
C1300	Front left inlet valve faulty	Inlet solenoid inside ABS pump assembly. Replace ABS pump.
C1301	Front left outlet valve faulty	Outlet solenoid inside ABS pump assembly. Replace ABS pump.
C1302	Front right inlet valve faulty	Inlet solenoid inside ABS pump assembly. Replace ABS pump.
C1303	Front right outlet valve faulty	Outlet solenoid inside ABS pump assembly. Replace ABS pump.
C1304	Left rear inlet valve faulty	Inlet solenoid inside ABS pump assembly. Replace ABS pump.
C1305	Left rear outlet valve faulty	Outlet solenoid inside ABS pump assembly. Replace ABS pump.

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Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
C1306	Right rear inlet valve faulty	Inlet solenoid inside ABS pump assembly. Replace ABS pump.
C1307	Right rear outlet valve faulty	Outlet solenoid inside ABS pump assembly. Replace ABS pump.
C1311	Switch-over valve (Left Front/Rear Right Diagonal)	Relief valve solenoid inside ABS Pump assembly. Replace ABS pump.
C1312	Switch-over valve (Right Front/Rear Left Diagonal)	Relief valve solenoid inside ABS Pump assembly. Replace ABS pump.
C1313	Inlet valve (Left Front/Rear Right Diagonal)	Relief valve solenoid inside ABS Pump assembly. Replace ABS pump.
C1314	Inlet valve (Right Front/Rear Left Diagonal)	Relief valve solenoid inside ABS Pump assembly. Replace ABS pump.
C1315	Inlet solenoid valve	Relief valve solenoid inside ABS Pump assembly. Replace ABS pump.
C1401	Return pump	Pump motor faulty or not functioning
C1407	Parameterization is incorrect	Check-sum fault. Correct parameter settings
C1408	All-wheel drive pressure sensor fault	Inspect ARS control unit for faults. NOT APPLICABLE USA/CANADA
C1409	Parameterization is incorrect	Component settings incorrect. Correct parameter settings
C1410	Parameterization is incorrect	Component settings incorrect. Correct parameter settings
C1411	Fault at retarder shutoff relay	Inspect retarder relay for faults. NOT APPLICABLE USA/CANADA
C1500	Wheel speed error: incorrect brake disk/tone wheel fitted	Fit original brake disks and/or replace tone wheel.
C1501	All-wheel drive front wheels steering valve	Inspect ARS control unit for faults. NOT APPLICABLE USA/CANADA
C1511	ETS control unit not coded	Inspect ARS control unit for faults. NOT APPLICABLE USA/CANADA

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
C1512	Thermal overload (boiling fluid)	Thermal overload has occurred. Replace brake fluid and bleed system.
C1513	ASR control unit not coded (or wrong ME Module)	Inspect ME control unit for faults. NOT APPLICABLE USA/CANADA
C1514	All wheel drive steering relief valve (ABS shutoff function blocked)	Inspect ARS control unit for faults. NOT APPLICABLE USA/CANADA
C1515	All-wheel drive coding: parameters not correct	Inspect ARS control unit for faults. NOT APPLICABLE USA/CANADA
C1600	Excessive temperature in ABS pump.	Thermal overload has occurred. Check for fluid leaks. Replace brake fluid and bleed system.

NOTES:

## ESP STABILITY AND ANTI-LOCK BRAKE SYSTEM

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## ESP Antilock Brake, Stability, + Traction Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): ESP

Chrysler/Dodge: CAB

### Application Notes:

- ESP can be fitted to Mercedes-Benz chassis 901.6\*, 902.6\*, 903.6\* and 690.6\* from 2004-2006 (\*ESP was optional on MB models from 2004-2006)
- ESP [CAB] was fitted to all Freightliner 2500 models from 2004-2006
- ESP [CAB] was fitted to all Dodge 2500 models from 2004-2006.

Note: Dodge uses 'CAB' as an acronym for both ABS/ASR and ESP. The vehicle production date determines which type of brake system is fitted, as ESP was standardized for Dodge 2500 models and never available for 3500 models.

### Fault Code List:

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
5100	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5101	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5102	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5103	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5104	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFN	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

<b>Fault Code</b>	<b>Monitored Variable or Component (MB Component Number)</b>	<b>Detail</b>
5105	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5106	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5107	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5108	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5109	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
510A	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
510B	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
510C	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
510D	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
510E	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
510F	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5110	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5111	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5112	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5113	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5114	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5115	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5116	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5117	Valve relay	Inspect fuse F7, wiring, or ESP [CAB] control unit (A2) fault
5118	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
5119	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit

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Fault Code	Monitored Variable or Component (MB Component Number)	Detail
511B	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
511C	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
511D	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
511E	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
511F	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
512A	Solenoid relay	Inspect fuse F7, wiring, or ESP [CAB] control unit (A2) fault
512B	Valve relay	Inspect fuse F7, wiring, or ESP [CAB] control unit (A2) fault
512D	ESP [CAB] control unit (A2) faulty	Replace ESP [CAB] control unit
513A	Valve relay	Inspect fuse F7, wiring, or ESP [CAB] control unit (A2) fault
513B	Valve relay	Inspect fuse F7, wiring, or ESP [CAB] control unit (A2) fault
514F	Brake light switch (B18) fault	<ul style="list-style-type: none"> <li>a. Inspect fuse A12f5.</li> <li>b. Wiring.</li> <li>c. (B18) brake switch faulty.</li> <li>d. ESP [CAB] control unit (A2) faulty.</li> </ul>
5154	Brake light switch (B18) signal plausibility	Inspect fuse A12f5, wiring, (B18) brake switch faulty, or A12 fault
5159	Brake light switch (B18)	<p>Incorrect adjustment or short to voltage (+).                      Adjust brake light switch (B18).                      If fault persists, then inspect wiring, brake switch (B18) faulty</p>
515B	Brake pressure sensor(A2/1) value implausible	<p>Adjust brake light switch (B18).                      If fault persists, inspect wiring, or brake pressure switch (A2/1) faulty</p>
518D	Power supply fault: Brake pressure sensor (A2/1)	Inspect wiring and/or replace brake pressure sensor

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACB	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFB	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
518F	Brake pressure sensor (A2/1)	Inspect wiring and/or replace brake pressure sensor
5193	Brake pressure sensor (A2/1)	Inspect wiring and/or replace brake pressure sensor
5196	Brake pressure sensor (A2/1)	Inspect wiring and/or replace brake pressure sensor
5197	Brake pressure sensor (A2/1) not allowing de-pressurization when pedal released	Inspect wiring and/or replace brake pressure sensor
519E	Brake pressure sensor (A2/1) value implausible	Adjust brake light switch (B18). If fault persists, then inspect wiring, brake pressure switch faulty
51AF	Steering angle sensor (B143) value implausible	CAN-Bus network fault. Voltage (+) supply interruption and/or wiring defect
51B0	Steering angle sensor (B143) value implausible	Front Wheel Speed signals (B79), (B80). Steering angle sensor incorrectly installed, or wheel speed sensor cables incorrectly connected
51B1	Steering angle sensor (B143) value implausible	Rear Wheel Speed signals (B81), (B82). Steering angle sensor incorrectly installed, or wheel speed sensor cables incorrectly connected
51B2	Steering angle sensor (B143) value implausible	CAN Signal missing. Steering angle sensor defective or wiring defect
51B3	Steering angle sensor (B143) value implausible	Mechanical defect with steering system. Steering wheel lock to lock rotation greater than 720 degrees
51B4	Steering angle sensor (B143) internal fault	Inspect wiring and/or replace steering angle sensor
51B5	Steering angle sensor (B143) value implausible	CAN signal faulty. Inspect wiring and/or replace steering angle sensor
51B6	Steering angle sensor (B143) internal fault	Inspect wiring and/or replace steering angle sensor

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Fault Code	Monitored Variable or Component (MB Component Number)	Detail
51B9	Steering angle sensor (B143) internal fault	Inspect wiring and/or replace steering angle sensor
51BA	Steering angle sensor (B143) internal fault	Inspect wiring and/or replace steering angle sensor
51BB	Steering angle sensor (B143) values are implausible	Inspect the following mechanical components: a. Check tire pressure; b. Inspect toe values; c. Steering system components excessive wear; d. Wheel alignment out of range. e. Inspect wiring and/or replace steering angle sensor f. Tires may not be the same size or may have tread damage
51BC	Steering angle sensor (B143) values are implausible	Inspect the following mechanical components: a. Check tire pressure; b. Inspect toe values; c. Steering system components excessive wear; d. Wheel alignment out of range. e. Inspect wiring and/or replace steering angle sensor f. Tires may not be the same size or may have tread damage.
51BD	Steering angle sensor (B143) value implausible: CAN Time-out	Inspect wiring and/or replace steering angle sensor
51BE	Steering angle sensor (B143) value implausible: CAN Time-out	Inspect wiring and/or replace steering angle sensor
51CF	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51D1	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51D2	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SIREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
51D3	Lateral acceleration sensor (B144) internal fault	Inspect mounting of lateral acceleration sensor; replace lateral acceleration sensor
51D4	Lateral acceleration sensor (B144) internal fault	Inspect mounting of lateral acceleration sensor; replace lateral acceleration sensor
51D5	Lateral acceleration sensor (B144) value implausible	Inspect the following mechanical components: <ol style="list-style-type: none"> <li>a. Check tire pressure;</li> <li>b. Inspect toe values;</li> <li>c. Steering system components excessive wear;</li> <li>d. Wheel alignment out of range.</li> <li>e. Inspect wiring and/or replace lateral acceleration sensor</li> <li>f. Tires may be the same size or may have tread damage</li> </ol>
51D6	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51D7	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51D8	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51D9	Lateral acceleration sensor (B144) internal fault	Inspect wiring; check mounting of (B144); replace lateral acceleration sensor (B144)
51DA	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51DB	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51DC	Lateral acceleration sensor (B144) value implausible	Inspect the following mechanical components: <ol style="list-style-type: none"> <li>a. Check tire pressure;</li> <li>b. Inspect toe values;</li> <li>c. Steering system components excessive wear;</li> <li>d. Wheel alignment out of range.</li> <li>e. Inspect wiring and/or replace lateral acceleration sensor</li> <li>f. Tires may not be the same size or may have tread damage.</li> </ol>
51DD	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)

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Fault Code	Monitored Variable or Component (MB Component Number)	Detail
51DE	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51DF	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51EE	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51EF	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51F3	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51F6	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51F9	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51FA	Lateral acceleration sensor (B144) value implausible	Inspect the following mechanical components: a. Check tire pressure; b. Inspect toe values; c. Steering system components excessive wear; d. Wheel alignment out of range. e. Inspect wiring and/or replace lateral acceleration sensor f. Tires may not be the same size or may have tread damage.
51FB	Lateral acceleration sensor (B144) cable	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
51FC	Lateral acceleration sensor (B144) internal fault	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SNREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	S3M	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
51FF	Lateral acceleration sensor (B144) internal fault	Inspect cable between ESP [CAB] control unit (A2) and (B144); replace lateral acceleration sensor (B144)
520F	Left front inlet valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
522F	Left front outlet valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
524F	Right rear inlet valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
526F	Right rear outlet valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
528F	Right front inlet valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
52AF	Right front outlet valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
52CF	Left rear inlet valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
52EF	Left rear outlet valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
534F	Left front right rear outlet switchover valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
536F	Right front left rear outlet switchover valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
538F	Left front right rear inlet switchover valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.

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Fault Code	Monitored Variable or Component (MB Component Number)	Detail
53AF	Right front left rear inlet switchover valve	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
53CF	Return Pump motor	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
53D8	Return Pump motor	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
53D9	Return Pump motor	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
53DA	Return Pump motor	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
53DC	Return Pump motor	Inspect charging system voltage too low or Fuse F7 faulty. Inspect Wiring. Replace ESP [CAB] hydraulic unit.
540F	Left front wheel speed sensor (B79) cable	Inspect wiring. Wheel speed sensor (B79) faulty
5413	Left front wheel speed sensor (B79) cable	Inspect wiring. Wheel speed sensor (B79) faulty
5415	Left front wheel speed sensor (B79) value implausible	<ol style="list-style-type: none"> <li>Inspect wiring.</li> <li>The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>Unshielded electromagnetic equipment may cause interference.</li> <li>Wheel speed sensor defective.</li> <li>Tires are mismatched or damaged.</li> </ol>
5417	Left front wheel speed sensor (B79) value implausible	<ol style="list-style-type: none"> <li>Inspect wiring.</li> <li>The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>Unshielded electromagnetic equipment may cause interference.</li> <li>Wheel speed sensor defective.</li> <li>Tires are mismatched or damaged.</li> </ol>

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

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AB	ACM	Airbag	ESP	CAB	Traction Control
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APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZY	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
5419	Left front wheel speed sensor (B79) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
541B	Left front wheel speed sensor (B79) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
541C	Left front wheel speed sensor (B79) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
541D	Left front wheel speed sensor (B79) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
542F	Right rear wheel speed sensor (B82) cable	Inspect wiring. Wheel speed sensor (B82) faulty
5433	Right rear wheel speed sensor (B82) cable	Inspect wiring. Wheel speed sensor (B82) faulty
5435	Right rear wheel speed sensor (B82) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
5437	Right rear wheel speed sensor (B82) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
5439	Right rear wheel speed sensor (B82) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
543B	Right rear wheel speed sensor (B82) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>

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Fault Code	Monitored Variable or Component (MB Component Number)	Detail
543C	Right rear wheel speed sensor (B82) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
543D	Right rear wheel speed sensor (B82) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
544F	Right front wheel speed sensor (B80) cable	Inspect wiring. Wheel speed sensor (B80) faulty
5453	Right front wheel speed sensor (B80) cable	Inspect wiring. Wheel speed sensor (B80) faulty
5455	Right front wheel speed sensor (B80) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
5457	Right front wheel speed sensor (B80) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
5459	Right front wheel speed sensor (B80) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
545B	Right front wheel speed sensor (B80) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Asslat (Factory version)	WSP	SYREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
545C	Right front wheel speed sensor (B80) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
545D	Right front wheel speed sensor (B80) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
546F	Left rear wheel speed sensor (B81) cable	Inspect wiring. Wheel speed sensor (B81) faulty
5473	Left rear wheel speed sensor (B81) cable	Inspect wiring. Wheel speed sensor (B81) faulty
5475	Left rear wheel speed sensor (B81) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
5477	Left rear wheel speed sensor (B81) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
5479	Left rear wheel speed sensor (B81) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
547B	Left rear wheel speed sensor (B81) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
547C	Left rear wheel speed sensor (B81) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>
547D	Left rear wheel speed sensor (B81) value implausible	<ul style="list-style-type: none"> <li>a. Inspect wiring.</li> <li>b. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>c. Unshielded electromagnetic equipment may cause interference.</li> <li>d. Wheel speed sensor defective.</li> <li>e. Tires are mismatched or damaged.</li> </ul>

## The Complete Sprinter Fault Code Guide -- Chassis Systems -- Brake/Traction Control Unit

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
548F	Wheel speed sensor signal error	Unshielded electromagnetic equipment may cause interference.
5499	Incorrect wheel speed rotor at one of the wheels	<ul style="list-style-type: none"> <li>a. Tire pressure is incorrect or tires mismatched or incorrectly fitted.</li> <li>b. Tires may be damaged or out of balance.</li> <li>c. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>d. Wheel speed sensors or wiring defective.</li> </ul>
549D	Incorrect wheel speed rotor at one of the wheels	<ul style="list-style-type: none"> <li>a. Tire pressure is incorrect or tires mismatched or incorrectly fitted.</li> <li>b. Tires may be damaged or out of balance.</li> <li>c. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>d. Wheel speed sensors or wiring defective.</li> </ul>
549E	Incorrect wheel speed rotor at one of the wheels	<ul style="list-style-type: none"> <li>a. Tire pressure is incorrect or tires mismatched or incorrectly fitted.</li> <li>b. Tires may be damaged or out of balance.</li> <li>c. The gap between sensor and rotor is too large or rotor is damaged or dirty.</li> <li>d. Wheel speed sensors or wiring defective.</li> </ul>
54AF	ESP [CAB] control unit in limp-home mode	<p>Perform solenoid test. If test is OK, erase fault.</p> <p>Note: This fault may occur when snow chains are used, in this case, just erase fault.</p>
54B7	Steering angle sensor (B143) internal fault	<p>Momentary failure. Process other faults related to (B143) first. If fault continues to occur, replace steering angle sensor (B143).</p> <p>Note: This fault may occur when snow chains are used, in this case, just erase fault.</p>
54BB	Lateral acceleration sensor (B144) internal fault	Replace lateral acceleration sensor.
54BC	ESP [CAB] control unit in limp-home mode	<p>Momentary failure. Process other faults first. If fault continues to occur, test all wheel speed sensors. Perform driving test while examining live data of wheel speed sensors.</p> <p>Note: This fault may occur when snow chains are used, in this case, just erase fault.</p>

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EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
54CD	CAN communication error	Inspect CAN-Bus wiring for short or open circuit
54CF	CAN communication error	Inspect CAN-Bus wiring for short or open circuit
54D9	CAN communication error	Inspect CAN-Bus wiring for short or open circuit
54DB	CAN communication error	Inspect CAN-Bus wiring for short or open circuit
54F7	Undervoltage	Inspect fuse: F5, F6, and F7. Inspect voltage (+) supply wiring and charging system for fault
54F8	System over-voltage	Charging system voltage regulator fault. Test alternator.
54F9	System undervoltage	Inspect fuse: F5, F6, and F7. Inspect voltage (+) supply wiring and charging system for fault
5501	No CAN communication with transmission	Inspect wiring and test transmission control unit EGS [TCM] or SSG for current fault codes. Inspect power supply to EGS [TCM]
5502	CAN message from transmission implausible	Fault codes present in transmission control unit EGS [TCM] / SSG
5503	CAN communication with engine control unit faulty	Inspect wiring and test engine control unit CDI [ECM] or ME for current fault codes. Inspect power supply to CDI [ECM] or ME
5504	CAN ID fault: Command 300 not received	Event fault. Erase fault and retest after drive cycle complete
5505	CAN communication error with instrument cluster	Inspect wiring and test instrument cluster KI [IC] for current fault codes

## The Complete Sprinter Fault Code Guide -- Chassis Systems -- Brake/Traction Control Unit

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
5506	CAN ID fault: Command 402 not received	Event fault. Erase fault and retest after drive cycle complete
5507	CAN message from engine control unit implausible	Fault codes present in engine control unit CDI [ECM] or ME
5508	CAN message from engine control unit implausible	Fault codes present in engine control unit CDI [ECM] or ME
5509	CAN ID fault: Command 208 not transmitted	Event fault. Erase fault and retest after drive cycle complete
550B	CAN communication with engine control unit faulty	Inspect wiring and test engine control unit CDI [ECM] or ME for current fault codes. Inspect power supply to CDI [ECM] or ME
550C	CAN communication with engine control unit faulty	Inspect wiring and test engine control unit CDI [ECM] or ME for current fault codes. Inspect power supply to CDI [ECM] or ME
550D	CAN message from engine control unit implausible	Fault codes present in engine control unit CDI [ECM] or ME
5515	CAN message from engine control unit implausible	Fault codes present in engine control unit CDI [ECM] or ME
5516	CAN message from engine control unit implausible	Fault codes present in engine control unit CDI [ECM] or ME
5517	CAN communication with engine control unit faulty	Inspect wiring and test engine control unit CDI [ECM] or ME for current fault codes. Inspect power supply to CDI [ECM] or ME

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
5518	CAN communication with engine control unit faulty	Inspect wiring and test engine control unit CDI [ECM] or ME for current fault codes. Inspect power supply to CDI [ECM] or ME
5519	CAN communication with engine control unit faulty	Inspect wiring and test engine control unit CDI [ECM] or ME for current fault codes. Inspect power supply to CDI [ECM] or ME
551A	CAN ID Fault: Command 240 not received.	Event fault. Erase fault and retest after drive cycle complete
551B	CAN communication error: Network Fault	Inspect CAN-Bus wiring. A control unit on the network may be faulty. A short circuit may be present in wiring
551C	CAN communication error: Network Fault	Inspect CAN-Bus wiring. A control unit on the network may be faulty. A short circuit may be present in wiring
551D	CAN communication error: Network Fault	Inspect CAN-Bus wiring. A control unit on the network may be faulty. A short circuit may be present in wiring
55AF	Brake fluid level warning	Brake fluid level is too low
55EE	System passive during emissions test	Emissions testing related status report. Ignore fault
55EF	Parameterization faulty	Parameterization has not been performed on control unit ESP
55F5	Variant coding fault	Variant coding on ESP and Instrument Cluster control units do not match. Wrong variants set.
55FA	Steering angle sensor (B143) calibration error: CAN Timeout	Calibration has not been performed or has failed due to internal error with steering angle sensor, or wiring. Error may have been generated by mechanical defect where steering lock is greater than 720 degrees
55FB	Fault at retarder (exhaust brake) shutoff relay	Optional component. If exhaust brake (retarder) is fitted, check pin 37 on ESP [CAB] control unit main connector for damage. Follow retarder manufacturer's instructions for specific testing.
5602	Driving test error: Lateral acceleration sensor (B144)	Lateral acceleration sensor or wiring is defective

The Complete Sprinter Fault Code Guide -- Chassis Systems -- Brake/Traction Control Unit

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
5603	Driving test error: Lateral acceleration sensor (B144)	Lateral acceleration sensor or wiring is defective
5604	Driving test error: Lateral acceleration sensor (B144)	Check tire pressure. Check wheels and tires for correct application. If tires and wheels are OK, then lateral acceleration sensor or wiring is defective
5608	Driving test error: Lateral acceleration sensor (B144)	Lateral acceleration sensor or wiring is defective
5609	Driving test error: Lateral acceleration sensor (B144)	Lateral acceleration sensor or wiring is defective
560A	Driving test error: Lateral acceleration sensor (B144)	Lateral acceleration sensor or wiring is defective
560F	Driving test completed successfully	No fault in system. This is a status report after repairs
563D	General wheel speed sensor signal error	<p>a. The gap between sensor and rotor is too large or rotor is damaged or dirty.                      b. Wheel speed sensors or wiring defective.</p> <p>Note: Aftermarket brake disks may cause this error due to quality problems. Factory brake disks are shipped pre-balanced. If brake disk or tire is out of balance, wheel speed sensor values may be faulty.</p>
563E	General wheel speed sensor signal error	Electromagnetic interference caused by unshielded electronics
564E	System passive during emissions test	Emissions testing related status report. Ignore fault
567D	Parameterization error	Parameters for ESP and Instrument Cluster control units do not match. Wrong parameters set. Set parameters in ESP [CAB] control unit to match vehicle equipment and market.

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	WA	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Asslet (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

W/A= Not Applicable for US Models

Fault Code	Monitored Variable or Component (MB Component Number)	Detail
567E	Variant coding error: Checksum fault	Error or power supply voltage (+) drop during variant coding. Perform variant coding again. Make sure battery voltage (+) is 12.5V during variant coding process.
56FE	Driving test did not complete successfully	Fault codes stored during driving test. Driving test can only be completed when no fault codes are stored.

*Practical Tip: Many ESP [CAB] fault codes and other operational errors seem to occur after brake pad and disk replacement. It is important to note that original Mercedes-Benz brake disks (and OEM Dodge/Freightliner) are manufactured to high standards and then machined to be precision balanced.*

*Many aftermarket and "OE pattern" parts are not actually made to OE levels, or may have been rejected by the OE due to quality issues. Many aftermarket disks are not balanced, or have bonded material added to them to approximate balancing. An unbalanced brake disk is both a problem for the ESP [CAB] system and a safety risk.*

*Due to the design and sensitivity of the ESP [CAB] system, it is important to only use original Mercedes-Benz parts.*

*If fault codes for wheel speed sensors and other faults occur after brake disk replacement with aftermarket parts, switch brake disks to original parts.*

NOTES:

## BODY SYSTEMS FAULT CODES

For 2000-2006 NAFTA Sprinters, depending on optional equipment, the body system control units may include:

1. AB – Airbag Control Unit
2. EDW2 – Alarm System
3. KI – Instrument Cluster
4. RD – Radio Control Unit
5. RFH – Remote Keyless Entry
6. WSP – Immobilizer
7. ZV – Central Locking

**IMPORTANT NOTE:** This fault code guide covers original factory installed control units and systems. Some vehicles may have either aftermarket or dealer installed components that are not covered by this book. For fault codes or troubleshooting instructions on aftermarket or dealer installed components, refer to the documentation provided by the manufacturer of the component.

## AB AIRBAG CONTROL UNIT

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

# AB Airbag Control Unit

## Acronyms:

Daimler (Mercedes-Benz/Freightliner): AB

Chrysler/Dodge: ACM

## Fault Code List:

Fault Code	Sub Code	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
1	000	AB [ACM] Control Unit (A10) Faulty	Replace AB [ACM] control unit.
1	008	AB [ACM] Control Unit (A10) Faulty	Replace AB [ACM] control unit.
1	010	AB [ACM] Control Unit (A10) Faulty	Replace AB [ACM] control unit.
1	016	AB [ACM] Control Unit (A10) Faulty	Replace AB [ACM] control unit.
1	020	Stored energy firing 1	Airbags report deployed. Replace AB [ACM] control unit
1	032	Undervoltage	a. Check charging system for faults. b. If no charging system faults found, replace AB [ACM] control unit.
1	040	Stored energy firing 2	Airbags report deployed. Replace AB [ACM] control unit
1	064	Overvoltage	a. Check charging system for faults. b. If no charging system faults found, replace AB [ACM] control unit.
2	004	Airbag warning indicator lamp has an open or short circuit to ground (-).	a. Instrument cluster faulty b. Inspect cable P15.2/16 to A10.1/7
2	010	Airbag warning indicator lamp has an open or short circuit to voltage (+).	a. Instrument cluster faulty b. Inspect cable P15.2/16 to A10.1/7
2	016	Airbag warning indicator lamp has an open or short circuit to voltage (+).	a. Instrument cluster faulty b. Inspect cable P15.2/16 to A10.1/7

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFB	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Code	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
3	020	Terminal 15 Undervoltage	Inspect cable A10.1/5 to J18
3	032	Terminal 15 Undervoltage	Inspect cable A10.1/5 to J18
4	000	Driver airbag squib (R1) feedback implausible	<ul style="list-style-type: none"> <li>a. Driver airbag faulty</li> <li>b. Fault in cable R1/1 to X125/2</li> <li>c. Fault in cable R1/2 to X125/1</li> <li>d. Clockspring contact plug damaged</li> <li>e. Inspect cable X125/1 to A10/11</li> <li>f. Inspect cable X125/2 to A10/10</li> </ul>
4	008	Driver airbag squib (R1) short circuit to ground (-) or open circuit	<ul style="list-style-type: none"> <li>a. Driver airbag faulty</li> <li>b. Fault in cable R1/1 to X125/2</li> <li>c. Fault in cable R1/2 to X125/1</li> <li>d. Clockspring contact plug damaged</li> <li>e. Inspect cable X125/1 to A10/11</li> <li>f. Inspect cable X125/2 to A10/10</li> </ul>
4	010	Driver airbag squib (R1) short circuit to voltage (+).	<ul style="list-style-type: none"> <li>a. Driver airbag faulty</li> <li>b. Fault in cable R1/1 to X125/2</li> <li>c. Fault in cable R1/2 to X125/1</li> <li>d. Clockspring contact plug damaged</li> <li>e. Inspect cable X125/1 to A10/11</li> <li>f. Inspect cable X125/2 to A10/10</li> </ul>
4	020	Driver airbag squib (R1) short circuit	<ul style="list-style-type: none"> <li>a. Driver airbag faulty</li> <li>b. Fault in cable R1/1 to X125/2</li> <li>c. Fault in cable R1/2 to X125/1</li> <li>d. Clockspring contact plug damaged</li> <li>e. Inspect cable X125/1 to A10/11</li> <li>f. Inspect cable X125/2 to A10/10</li> </ul>
4	032	Driver airbag squib (R1) low impedance	<ul style="list-style-type: none"> <li>a. Driver airbag faulty</li> <li>b. Fault in cable R1/1 to X125/2</li> <li>c. Fault in cable R1/2 to X125/1</li> <li>d. Clockspring contact plug damaged</li> <li>e. Inspect cable X125/1 to A10/11</li> <li>f. Inspect cable X125/2 to A10/10</li> </ul>
4	040	Driver airbag squib (R1) open circuit	<ul style="list-style-type: none"> <li>a. Driver airbag faulty</li> <li>b. Fault in cable R1/1 to X125/2</li> <li>c. Fault in cable R1/2 to X125/1</li> <li>d. Clockspring contact plug damaged</li> <li>e. Inspect cable X125/1 to A10/11</li> <li>f. Inspect cable X125/2 to A10/10</li> </ul>

## The Complete Sprinter Fault Code Guide -- Body Systems -- Airbag Control Unit

Fault Code	Sub Code	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
4	064	Driver airbag squib (R1) high impedance	<ul style="list-style-type: none"> <li>a. Driver airbag faulty</li> <li>b. Fault in cable R1/1 to X125/2</li> <li>c. Fault in cable R1/2 to X125/1</li> <li>d. Clockspring contact plug damaged</li> <li>e. Inspect cable X125/1 to A10/11</li> <li>f. Inspect cable X125/2 to A10/10</li> </ul>
5	000	Driver ETR seat belt tensioner (R3) feedback implausible	<ul style="list-style-type: none"> <li>a. Driver ETR (R3) faulty</li> <li>b. Inspect cable R3/1 to A10.1/1</li> <li>c. Inspect cable R3/2 to A10.1/2</li> </ul>
5	008	Driver ETR seat belt tensioner (R3) short circuit to ground or open circuit	<ul style="list-style-type: none"> <li>a. Driver ETR (R3) faulty</li> <li>b. Inspect cable R3/1 to A10.1/1</li> <li>c. Inspect cable R3/2 to A10.1/2</li> </ul>
5	010	Driver ETR seat belt tensioner (R3) short circuit to voltage	<ul style="list-style-type: none"> <li>a. Driver ETR (R3) faulty</li> <li>b. Inspect cable R3/1 to A10.1/1</li> <li>c. Inspect cable R3/2 to A10.1/2</li> </ul>
5	016	Driver ETR seat belt tensioner (R3) short circuit to voltage	<ul style="list-style-type: none"> <li>a. Driver ETR (R3) faulty</li> <li>b. Inspect cable R3/1 to A10.1/1</li> <li>c. Inspect cable R3/2 to A10.1/2</li> </ul>
5	020	Driver ETR seat belt tensioner (R3) short circuit	<ul style="list-style-type: none"> <li>a. Driver ETR (R3) faulty</li> <li>b. Inspect cable R3/1 to A10.1/1</li> <li>c. Inspect cable R3/2 to A10.1/2</li> </ul>
5	032	Driver ETR seat belt tensioner (R3) low impedance	<ul style="list-style-type: none"> <li>a. Driver ETR (R3) faulty</li> <li>b. Inspect cable R3/1 to A10.1/1</li> <li>c. Inspect cable R3/2 to A10.1/2</li> </ul>
5	040	Driver ETR seat belt tensioner (R3) open circuit	<ul style="list-style-type: none"> <li>a. Driver ETR (R3) faulty</li> <li>b. Inspect cable R3/1 to A10.1/1</li> <li>c. Inspect cable R3/2 to A10.1/2</li> </ul>
5	064	Driver ETR seat belt tensioner (R3) high impedance	<ul style="list-style-type: none"> <li>a. Driver ETR (R3) faulty</li> <li>b. Inspect cable R3/1 to A10.1/1</li> <li>c. Inspect cable R3/2 to A10.1/2</li> </ul>
6	000	Passenger ETR seat belt tensioner (R4) feedback implausible	<ul style="list-style-type: none"> <li>a. Passenger ETR (R4) faulty</li> <li>b. Inspect cable R4/1 to A10.1/3</li> <li>c. Inspect cable R4/2 to A10.1/4</li> </ul>

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Code	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
6	008	Passenger ETR seat belt tensioner (R4) short circuit to ground (-) or open circuit	<ul style="list-style-type: none"> <li>a. Passenger ETR (R4) faulty</li> <li>b. Inspect cable R4/1 to A10.1/3</li> <li>c. Inspect cable R4/2 to A10.1/4</li> </ul>
6	010	Passenger ETR seat belt tensioner (R4) short circuit to voltage (+)	<ul style="list-style-type: none"> <li>a. Passenger ETR (R4) faulty</li> <li>b. Inspect cable R4/1 to A10.1/3</li> <li>c. Inspect cable R4/2 to A10.1/4</li> </ul>
6	016	Passenger ETR seat belt tensioner (R4) short circuit to voltage (+)	<ul style="list-style-type: none"> <li>a. Passenger ETR (R4) faulty</li> <li>b. Inspect cable R4/1 to A10.1/3</li> <li>c. Inspect cable R4/2 to A10.1/4</li> </ul>
6	020	Passenger ETR seat belt tensioner (R4) short circuit	<ul style="list-style-type: none"> <li>a. Passenger ETR (R4) faulty</li> <li>b. Inspect cable R4/1 to A10.1/3</li> <li>c. Inspect cable R4/2 to A10.1/4</li> </ul>
6	032	Passenger ETR seat belt tensioner (R4) low impedance	<ul style="list-style-type: none"> <li>a. Passenger ETR (R4) faulty</li> <li>b. Inspect cable R4/1 to A10.1/3</li> <li>c. Inspect cable R4/2 to A10.1/4</li> </ul>
6	040	Passenger ETR seat belt tensioner (R4) open circuit	<ul style="list-style-type: none"> <li>a. Passenger ETR (R4) faulty</li> <li>b. Inspect cable R4/1 to A10.1/3</li> <li>c. Inspect cable R4/2 to A10.1/4</li> </ul>
6	064	Passenger ETR seat belt tensioner (R4) high impedance	<ul style="list-style-type: none"> <li>a. Passenger ETR (R4) faulty</li> <li>b. Inspect cable R4/1 to A10.1/3</li> <li>c. Inspect cable R4/2 to A10.1/4</li> </ul>
7	000	Passenger airbag squib (R2) feedback implausible	<ul style="list-style-type: none"> <li>a. Airbag parameters not set correctly</li> <li>b. Passenger airbag faulty</li> <li>c. Passenger ETR (R4) faulty</li> <li>d. Inspect cable R2/1 to A10.1/1</li> <li>e. Inspect cable R2/2 to A10.1/2</li> </ul>
7	008	Passenger airbag squib (R2) short circuit to ground (-) or open circuit	<ul style="list-style-type: none"> <li>a. Airbag parameters not set correctly</li> <li>b. Passenger airbag faulty</li> <li>c. Passenger ETR (R4) faulty</li> <li>d. Inspect cable R2/1 to A10.1/1</li> <li>e. Inspect cable R2/2 to A10.1/2</li> </ul>
7	010	Passenger airbag squib (R2) short circuit to voltage (+)	<ul style="list-style-type: none"> <li>a. Airbag parameters not set correctly</li> <li>b. Passenger airbag faulty</li> <li>c. Passenger ETR (R4) faulty</li> <li>d. Inspect cable R2/1 to A10.1/1</li> <li>e. Inspect cable R2/2 to A10.1/2</li> </ul>

The Complete Sprinter Fault Code Guide -- Body Systems -- Airbag Control Unit

Fault Code	Sub Code	Component or variable monitored (MB Component Number)	Detail, cause, or remedy
7	016	Passenger airbag squib (R2) short circuit to voltage (+)	<ul style="list-style-type: none"> <li>a. Airbag parameters not set correctly</li> <li>b. Passenger airbag faulty</li> <li>c. Passenger ETR (R4) faulty</li> <li>d. Inspect cable R2/1 to A10.1/1</li> <li>e. Inspect cable R2/2 to A10.1/2</li> </ul>
7	020	Passenger airbag squib (R2) short circuit	<ul style="list-style-type: none"> <li>a. Airbag parameters not set correctly</li> <li>b. Passenger airbag faulty</li> <li>c. Passenger ETR (R4) faulty</li> <li>d. Inspect cable R2/1 to A10.1/1</li> <li>e. Inspect cable R2/2 to A10.1/2</li> </ul>
7	032	Passenger airbag squib (R2) low impedance	<ul style="list-style-type: none"> <li>a. Airbag parameters not set correctly</li> <li>b. Passenger airbag faulty</li> <li>c. Passenger ETR (R4) faulty</li> <li>d. Inspect cable R2/1 to A10.1/1</li> <li>e. Inspect cable R2/2 to A10.1/2</li> </ul>
7	040	Passenger airbag squib (R2) circuit open	<ul style="list-style-type: none"> <li>a. Airbag parameters not set correctly</li> <li>b. Passenger airbag faulty</li> <li>c. Passenger ETR (R4) faulty</li> <li>d. Inspect cable R2/1 to A10.1/1</li> <li>e. Inspect cable R2/2 to A10.1/2</li> </ul>
7	064	Passenger airbag squib (R2) high impedance	<ul style="list-style-type: none"> <li>a. Airbag parameters not set correctly</li> <li>b. Passenger airbag faulty</li> <li>c. Passenger ETR (R4) faulty</li> <li>d. Inspect cable R2/1 to A10.1/1</li> <li>e. Inspect cable R2/2 to A10.1/2</li> </ul>

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	GAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SEA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RPH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## EDW2 ALARM SYSTEM CONTROL UNIT

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

<i>DAIMLER</i>	<i>DODGE</i>	<i>DESCRIPTION</i>	<i>DAIMLER</i>	<i>DODGE</i>	<i>DESCRIPTION</i>
AB	ACB	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	NA	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	WA	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## EDW2 Alarm (Security) System Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): EDW2/ATA2

Chrysler/Dodge: SSM

### Fault Code List:

Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
B1001	Left front door switch (S42) and/or Right front door switch (S43)	Short circuit to ground (-). Test wiring and door switch (S42) and/or door switch (S43).
B1002	Left sliding door switch (S114) and/or Right sliding door switch (S115) and/or Rear cargo door switch (S116)	Short circuit to ground (-). a. Test wiring and door switch (S114) and/or door switch (S115) and/or door switch (S116). b. Clean contacts. c. For cargo vans or vans with a lot of rear or sliding door use, check door alignment to body and correct if necessary.
B1003	Starter interrupt circuit	Output circuit has a short circuit to ground (-) or open circuit.
B1004	Driver door lock switch (S45): lock function	Short circuit to ground (-). Test wiring and driver door lock activation switch (S45).
B1005	Driver door lock switch (S45): unlock function	Short circuit to ground (-). Test wiring and driver door lock activation switch (S45).
B1090	EDW2 [SSM] control unit	Replace EDW2 [SSM] control unit.
B1091	EDW2 [SSM] control unit	Replace EDW2 [SSM] control unit.
B1101	No signal from interior motion sensor 1 (B104)	Inspect fuse F112, wiring, and interior motion sensor 1 (B104) Note: Front sensor is located in cab light (E43) above rear view mirror

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KJ	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SHOREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
B1102	Poor signal from interior motion sensor 1 (B104)	Inspect fuse F112, wiring, and interior motion sensor 1 (B104) Note: Front sensor is located in cab light (E43) above rear view mirror
B1190	Interior motion sensor 1 (B104) is faulty	Inspect wiring and/or replace interior motion sensor 1 (B104). Note: Front sensor is located in cab light (E43) above rear view mirror. If faults B1190, B1290, and B1390 are also present, check battery ground cable for corrosion or damage.
B1201	No signal from interior motion sensor 2 (B105)	Inspect fuse F112, wiring, and interior motion sensor 2 (B105). Note: Center sensor is located in overhead light (E74) on roof behind front row of seats.
B1202	Poor signal from interior motion sensor 2 (B105)	Inspect fuse F112, wiring, and interior motion sensor 2 (B105). Note: Center sensor is located in overhead light (E74) on roof behind front row of seats.
B1290	Interior motion sensor 2 (B105) is faulty	Inspect wiring and/or replace interior motion sensor 2 (B105). Note: Center sensor is located in overhead light (E74) on roof behind front row of seats. If faults B1190, B1290, and B1390 are also present, check battery ground cable for corrosion or damage.
B1301	No signal from interior motion sensor 3 (B106).	Inspect fuse F112, wiring, and interior motion sensor 3 (B106). Note: Cargo area sensor is located in overhead light (E71) on roof above rear doors.
B1302	Poor signal from interior motion sensor 3 (B106)	Inspect fuse F112, wiring, and interior motion sensor 3 (B106). Note: Cargo area sensor is located in overhead light (E71) on roof above rear doors.
B1390	Interior motion sensor 3 (B106) is faulty	Inspect fuse F112, wiring, and interior motion sensor 3 (B106). Note: Cargo area sensor is located in overhead light (E71) on roof above rear doors. If faults B1190, B1290, and B1390 are also present, check battery ground cable for corrosion or damage.
B1410	Towing inclination sensor value is missing	Replace EDW2 [SSM] control unit. Note: Towing inclination sensor is located in EDW [SSM] control unit.
B1411	Towing inclination sensor value is implausible	Replace EDW2 [SSM] control unit. Note: Towing inclination sensor is located in EDW [SSM] control unit.

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Fault Code	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
B1412	Towing inclination sensor value is out of permissible range	Replace EDW2 [SSM] control unit. Note: Towing inclination sensor is located in EDW [SSM] control unit.
B1501	No signal from alarm horn (H78)	Inspect fuse F112, wiring, and alarm horn (H78). Note: Alarm horn is located on firewall behind the battery.
B1502	Poor signal from alarm horn (H78)	Inspect fuse F112, wiring, and alarm horn (H78). Note: Alarm horn is located on firewall behind the battery.
B1503	Input faulty to alarm horn (H78)	Wiring to alarm horn (H78) has open circuit to ground (-). Inspect and repair wiring or replace alarm horn (H78).
B1510	Alarm horn (H78) is faulty	Inspect and repair wiring or replace alarm horn (H78).
B1601	No signal to ZV [CTM] central locking control unit	Inspect wiring from ZV [CTM] (A8) to EDW2 [SSM] (A82). Cable A82.2/11 to A8.1/9 has a short circuit to ground (-), a short circuit to voltage (+), or an open circuit.
B1602	Poor signal to ZV [CTM] central locking control unit.	Inspect wiring from ZV [CTM] (A8) to EDW2 [SSM] (A82). Cable A82.2/11 to A8.1/9 has a fault.
B1701	No connection to keyless entry remote control	Inspect wiring. Cable A82.2/12 to A62/9 has a short circuit to ground (-), a short circuit to voltage (+), or an open circuit. Note: This fault is applicable to keyless entry systems only.
B1702	Poor connection to keyless entry remote control	Inspect wiring. Cable A82.2/12 to A62/9 has a fault. Note: This fault is applicable to keyless entry systems only.

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	W/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HEM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

W/A= Not Applicable for US Models

## KI INSTRUMENT CLUSTER CONTROL UNIT

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAS	Traction Control
ABS	CAS	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACW	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CD/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	YCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## KI Instrument Cluster Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): KI

Chrysler/Dodge: IC

**NOTE:** For early Mercedes-Benz Sprinter models, the instrument cluster requires a special adaptor tool for diagnosis, W901 589 04 63 00, for models produced prior to MY2000. The connection and use of this adaptor is found in MB Diagnosis Manuals.

### Fault Code List:

Fault Code	Sub Fault	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
B1010	000	SRS indicator lamp	SRS indicator bulb faulty a. Inspect wiring from P15.2/16 to A10.1/7 for open circuit. b. Test AB [ACM] control unit (A10) for fault codes. c. If fault codes are present in AB [ACM] control unit, repair problems there first. d. If bulb is faulty, replace KI [IC] control unit as LED bulb cannot be replaced separately.
B1011	000	Pre-glow indicator lamp failure	Pre-glow indicator bulb faulty: a. Inspect CAN-Bus network cables for short or open circuit. b. Test CDI [ECM] control unit for fault codes. c. If fault codes are present in CDI [ECM] control unit, repair problems there first. d. If bulb is faulty, replace KI [IC] control unit as LED bulb cannot be replaced separately.
B1053	000	KI [IC] Instrument cluster control unit (P15) faulty	Replace Instrument Cluster
B1060	000	MTCO control unit (P9) faulty	Tachograph output faulty. A system or operation fault exists with the MTCO control unit. Scan MTCO for fault codes and repair any problems found.  Note: When working on MTCO Tachograph, obey all applicable laws.  THIS FAULT CODE IS NOT APPLICABLE TO USA MODELS

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Sub Fault	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
B1080	000	Instrument cluster overvoltage (terminal 30+)	<p>Test charging system:</p> <ol style="list-style-type: none"> <li>Start engine.</li> <li>Increase engine speed to 1200rpm.</li> <li>Measure battery voltage. Voltage should be &lt;15.5V.</li> <li>If voltage is &gt; 15.5V, replace alternator or voltage regulator.</li> </ol>
B1043	000	KI [IC] Instrument cluster control unit (P15) faulty	Replace Instrument Cluster
B1470	001	Fuel level sensor (B3)	<p>Open circuit or short circuit to voltage (+).</p> <ol style="list-style-type: none"> <li>Inspect cable P15.1/1 to X4.2/3 for open circuit.</li> <li>Inspect cable P15.1/10 to X4.2/2 for short circuit to voltage (+), or open circuit.</li> <li>Test fuel level sensor (B3) for operation. If fuel level sensor is damaged or fuel has been contaminated, replace fuel tank, fuel lines, and fuel level sensor (pump) unit.</li> <li>Erase all stored fault codes.</li> <li>Conduct a driving test of vehicle.</li> <li>Scan for fault codes after drive test.</li> </ol> <p>Note: This fault code may take up to 20 minutes to register during driving test.</p>
B1470	002	Fuel level sensor (B3)	<p>Short circuit to ground (-).</p> <ol style="list-style-type: none"> <li>Inspect cable P15.1/1 to P15.1/10 for open circuit.</li> <li>Inspect cable P15.1/10 to X4.2/2 for short circuit to ground (-).</li> <li>Erase all stored fault codes.</li> <li>Conduct a driving test of vehicle.</li> <li>Scan for fault codes after drive test.</li> </ol> <p>Note: This fault code may take up to 20 minutes to register during driving test.</p>
B1471	001	Ambient temperature sensor (B37)	<p>Open circuit or short circuit to voltage (+).</p> <ol style="list-style-type: none"> <li>Inspect cable P15.1/2 to B37/1 for open circuit or short circuit to voltage (+).</li> <li>Inspect cable P15.1/11 to B37/2 for short circuit to voltage (+), or open circuit.</li> <li>Inspect ambient temperature sensor (B37) and cables for open circuit or physical damage.</li> <li>Erase all stored fault codes, and then rescan.</li> </ol> <p>Note: Inspect for debris or physical damage that may be present at (B37). If vehicle has sustained front bumper accident damage, (B37) and wiring may require replacement. An open circuit may be due to a damaged cable.</p>
B1471	002	Ambient temperature sensor (B37)	<p>Short circuit to ground (-).</p> <ol style="list-style-type: none"> <li>Inspect cable P15.1/2 to B37/1 for short circuit to voltage (-).</li> <li>Inspect cable P15.1/11 to B37/2 for short circuit to voltage (-).</li> <li>Inspect ambient temperature sensor (B37) and cables for physical damage.</li> <li>Erase all stored fault codes, and then rescan.</li> </ol> <p>Note: Inspect for debris or physical damage that may be present at (B37). If vehicle has sustained front bumper accident damage, (B37) and wiring may require replacement. A short circuit to ground (-) may be due to a damaged cable.</p>

CAN-Bus Network Event Code List:

Event Code	Sub Fault	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
B1040	000	CAN-Bus network event: CDI [ECM] control unit	<p>No communication with CDI [ECM] control unit:</p> <ol style="list-style-type: none"> <li>Inspect CAN-bus network wiring for short or open circuit.</li> <li>Test CAN cables for short circuit to ground (-) or short circuit to voltage (+).</li> <li>Erase all stored fault codes.</li> <li>Conduct a driving test of vehicle.</li> <li>Scan for fault codes after drive test.</li> <li>If fault code B1040 is present after drive test, inspect CDI [ECM] control unit for additional faults.</li> </ol>
B1041	000	CAN-Bus network event: ABS/ASR or ESP [CAB] control unit	<p>No communication with ABS/ASR or ESP [CAB] control unit:</p> <ol style="list-style-type: none"> <li>Inspect CAN-bus network wiring for short or open circuit.</li> <li>Test CAN cables for short circuit to ground (-) or short circuit to voltage (+).</li> <li>Erase all stored fault codes.</li> <li>Conduct a driving test of vehicle.</li> <li>Scan for fault codes after drive test.</li> <li>If fault code B1041 is present after drive test, inspect ABS/ASR or ESP [CAB] control unit for additional faults.</li> </ol>
B1042	000	CAN-Bus network event: EGS [TCM] control unit	<p>No communication with EGS [TCM] control unit:</p> <ol style="list-style-type: none"> <li>Inspect CAN-bus network wiring for short or open circuit.</li> <li>Test CAN cables for short circuit to ground (-) or short circuit to voltage (+).</li> <li>Erase all stored fault codes.</li> <li>Conduct a driving test of vehicle.</li> <li>Scan for fault codes after drive test.</li> <li>If fault code B1042 is present after drive test, inspect automatic transmission EGS [TCM] control unit for additional faults.</li> </ol>

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Event Code	Sub Fault	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
B1051	000	CAN-Bus network event: MTCO control unit	<p>No communication with MTCO control unit:</p> <ol style="list-style-type: none"> <li>a. Inspect cable P15.1/8 to P9.A/8 for short circuit to ground (-), short circuit to voltage (+), or open circuit.</li> <li>b. Inspect cable P15.1/8 to P9.A/8 for short circuit to ground (-), short circuit to voltage (+), or open circuit.</li> <li>c. Erase all stored fault codes.</li> <li>d. Conduct a driving test of vehicle.</li> <li>e. Scan for fault codes after drive test.</li> <li>f. If fault code B1051 is present after drive test, inspect automatic transmission MTCO control unit for additional faults.</li> </ol> <p>Note: When working on MTCO tachograph, obey all applicable laws.</p> <p>THIS FAULT CODE IS NOT APPLICABLE TO USA MODELS</p>

NOTES:

## RD RADIO AND NAVIGATION SYSTEM

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SBM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## Radio: SOUND 10 Cassette & SOUND 30 CD Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): RD

Chrysler/Dodge: RADIO

**NOTE:** Daimler and Dodge factory (not dealer) installed radios only. Not applicable to versions that have D2B or MOST connections, or have APS navigation processors for GPS or telematic systems. Radio must be 'ON' for diagnosis

### Fault Code List:

Daimler	Dodge	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
Fault Code	Fault Code		
B1000	0000	RD [RADIO] control unit (A9) is faulty	Radio is faulty. Note: Radio must be ON for diagnosis.
B1010	1010	Undervoltage	Battery voltage is < 9.5V. Radio input voltage is < 9.5V.
B1011	1011	Overvoltage	Alternator and/or voltage regulator are faulty. Test charging system.
B1060	1400	CAN-Bus network fault	Radio is faulty
B1073	7630	CD Drive fault	Radio is faulty
N1132	1320	Pushbutton controls jammed	Radio is faulty.
N1140	0600	CAN-Bus network fault with KI [IC] instrument cluster control unit	Radio is faulty
N1142	1420	Antenna fault frequency search	Antenna or antenna cable is damaged or not connected.
N1144		Cassette cannot eject	Radio is faulty. (Cassette player version only)

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACB	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDJCR	ECB	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SBM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Daimler	Dodge	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
Fault Code	Fault Code		
N1145		Cassette drive jammed	Radio is faulty. (Cassette player version only)
N1160	1600	No link to CD changer	Radio is faulty. (Becker/Alpine Unilink-Bus fault)
N1240	2400	CD player thermal overload	Warning message triggered when internal temperature is over 85°C (185°F)
N1242	2420	CD cannot eject	Radio is faulty. (CD player version only)
N1243	2430	CD cannot be inserted	Radio is faulty. (CD player version only)

Radio Codes and Notes:

## RFH PARKING ASSIST CONTROL UNIT

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## RFH Ultrasonic Reversing Assistance Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): RFH

Chrysler/Dodge: BA

**NOTE:** These fault codes are only applicable to factory installed RFH [BA] systems. Dealer installed or aftermarket units are not supported.

### Fault Code List:

Fault Code	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
B0001	RFH [BA] control unit (A65) faulty	Internal fault. Replace RFH [BA] control unit.
B0002	RFH [BA] control unit (A65) faulty	Internal fault. Replace RFH [BA] control unit.
B0003	Supply voltage too low or too high	<ul style="list-style-type: none"> <li>a. Test charging system for voltage regulator defect.</li> <li>b. Cable from A65.2/5 to B133 may be faulty.</li> <li>c. Cable from A65.2/5 to B134 may be faulty.</li> <li>d. Cable from A65.2/5 to B135 may be faulty.</li> <li>e. Cable from A65.2/5 to B136 may be faulty.</li> <li>f. One of the sensors (B133), (B134), (B135), and/or (B136) may be faulty.</li> </ul>
B0010	Left rear sensor (B136)	<p>Short circuit to voltage (+).</p> <ul style="list-style-type: none"> <li>a. Cable from A65.2/1 to B136/1 short circuit to voltage (+).</li> <li>b. Sensor (B136) is faulty</li> </ul>
B0011	Left rear sensor (B136)	<p>Signal is implausible.</p> <ul style="list-style-type: none"> <li>a. Sensor is dirty.</li> <li>b. The decoupling ring is missing or improperly installed.</li> <li>c. During calibration, an obstacle was too close to sensor to allow calibration.</li> </ul> <p>Note: This fault may occur after body repairs due to excessive paint thickness</p>
B0012	Left rear sensor (B136)	<p>Short circuit to ground (-) or open circuit.</p> <ul style="list-style-type: none"> <li>a. Cable from A65.2/1 to B136/1 short circuit to voltage (+).</li> <li>b. Sensor is not connected or moisture, dirt, or corrosion is present in plug connection B136/1.</li> </ul> <p>Note: Sensors all have common ground at control unit A65.2/7.</p>

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Fault Code	Monitored Variable or Component (MB Component Number)	Detail, cause, or remedy
B0020	Center left sensor (B135)	Short circuit to voltage (+). a. Cable from A65.2/2 to B135/1 short circuit to voltage (+). b. Sensor (B135) is faulty
B0021	Center left sensor (B135)	Signal is implausible. a. Sensor is dirty. b. The decoupling ring is missing or improperly installed. c. During calibration, an obstacle was too close to sensor to allow calibration.  Note: This fault may occur after body repairs due to excessive paint thickness
B0022	Center left sensor (B135)	Short circuit to ground (-) or open circuit. a. Cable from A65.2/2 to B135/1 short circuit to voltage (+). b. Sensor is not connected or moisture, dirt, or corrosion is present in plug connection B135/1.  Note: Sensors all have common ground at control unit A65.2/7.
B0030	Center right sensor (B134)	Short circuit to voltage (+). a. Cable from A65.2/3 to B134/1 short circuit to voltage (+). b. Sensor (B134) is faulty
B0031	Center right sensor (B134)	Signal is implausible. a. Sensor is dirty. b. The decoupling ring is missing or improperly installed. c. During calibration, an obstacle was too close to sensor to allow calibration.  Note: This fault may occur after body repairs due to excessive paint thickness
B0032	Center right sensor (B134)	Short circuit to ground (-) or open circuit. a. Cable from A65.2/3 to B134/1 short circuit to voltage (+). b. Sensor is not connected or moisture, dirt, or corrosion is present in plug connection B134/1.  Note: Sensors all have common ground at control unit A65.2/7.
B0040	Right rear sensor (B133)	Short circuit to voltage (+). a. Cable from A65.2/4 to B133/1 short circuit to voltage (+). b. Sensor (B133) is faulty
B0041	Right rear sensor (B133)	Signal is implausible. a. Sensor is dirty. b. The decoupling ring is missing or improperly installed. c. During calibration, an obstacle was too close to sensor to allow calibration.  Note: This fault may occur after body repairs due to excessive paint thickness
B0042	Right rear sensor (B133)	Short circuit to ground (-) or open circuit. a. Cable from A65.2/4 to B133/1 short circuit to voltage (+). b. Sensor is not connected or moisture, dirt, or corrosion is present in plug connection B133/1.  Note: Sensors all have common ground at control unit A65.2/7.

## WSP IMMOBILIZER CONTROL UNIT

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CD/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## WSP Immobilizer Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): WSP

(WSP may also be referred to as "DAS" in older service literature or for M111 gasoline engine versions)

Chrysler/Dodge: SKREEM

### Fault Code List:

Fault Code	Sub Fault	Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
B1781	001	Interface to ZV [CTM] central locking control unit (A8)	Short circuit to voltage (+). <ol style="list-style-type: none"> <li>Cable from A62/9 (WSP [SKREEM] control unit) to connector X194/3 short circuit to voltage (+).</li> <li>Cable from connector X194/3 to A82.2/12 (EDW2 [SSM] control unit) short circuit to voltage (+).</li> <li>Cable from A82.2/11 to A8.1/9 (ZV [CTM] control unit) short circuit to voltage (+).</li> </ol>
B1781	004	Interface to ZV [CTM] central locking control unit (A8)	Short circuit to ground (-) or open circuit. <ol style="list-style-type: none"> <li>Cable from A62/9 (WSP [SKREEM] control unit) to connector X194/3 short circuit to ground (-) or open circuit.</li> <li>Cable from connector X194/3 to A82.2/12 (EDW2 [SSM] control unit) short circuit to ground (-) or open circuit.</li> <li>Cable from A82.2/11 to A8.1/9 (ZV [CTM] control unit) short circuit to ground (-) or open circuit.</li> </ol>
B1782	000	WSP [SKREEM] control unit (A62) faulty	Replace WSP [SKREEM] control unit. Internal fault or ant-theft start attempt operation limit reached

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CD/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## ZV CENTRAL LOCKING CONTROL UNIT

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## ZV Central Locking Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): ZV

Chrysler/Dodge: CTM

### Fault Code List:

Daimler		Dodge (DRB3)		Monitored variable or component (MB component number)	Detail, cause, or remedy
Fault Code	Sub Fault	Fault Code	Sub Fault		
B1001	035	9001	23	Keyless entry remote interface	Short circuit to ground (-). <ol style="list-style-type: none"> <li>Cable from A8.1/9 (ZV [CTM] control unit) to A62.1/9 (WSP [SKREEM] control unit) short circuit to ground (-).</li> <li>Cable from A8.1/9 (ZV [CTM] control unit) to A82.2/11 (EDW2 [SSM] control unit) short circuit to ground (-).</li> <li>Cable from A82.2/12 (EDW2 [SSM] control unit) to connector X194/3 short circuit to ground (-).</li> <li>Cable from X194/3 to A62.1/9 (WSP [SKREEM] control unit) short circuit to ground (-).</li> </ol>
B1001	037	9001	25	Keyless entry remote interface	Short circuit to voltage (+). <ol style="list-style-type: none"> <li>Cable from A8.1/9 (ZV [CTM] control unit) to A62.1/9 (WSP [SKREEM] control unit) short circuit to voltage (+).</li> <li>Cable from A8.1/9 (ZV [CTM] control unit) to A82.2/11 (EDW2 [SSM] control unit) short circuit to voltage (+).</li> <li>Cable from A82.2/12 (EDW2 [SSM] control unit) to connector X194/3 short circuit to voltage (+).</li> <li>Cable from X194/3 to A62.1/9 (WSP [SKREEM] control unit) short circuit to voltage (+).</li> </ol>

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Daimler		Dodge (DRB3)		Monitored variable or component (MB component number)	Detail, cause, or remedy
Fault Code	Sub Fault	Fault Code	Sub Fault		
B1003	035	9003	23	Central locking switch (S126)	<p>Driver door open indicator LED 1 on central locking switch (S126) short circuit to ground (-).</p> <ol style="list-style-type: none"> <li>Cable from A8.1/15 (ZV [CTM] control unit) to connector X80/8 short circuit to ground (-).</li> <li>Cable from connector X80/8 to S126/9 (central locking switch) short circuit to ground (-)</li> <li>Central locking switch (S126) is faulty.</li> <li>Driver door is actually open or misaligned.</li> </ol>
B1004	035	9004	23	Central locking switch (S126)	<p>Passenger door open indicator LED 2 on central locking switch (S126) short circuit to ground (-).</p> <ol style="list-style-type: none"> <li>Cable from A8.2/3 (ZV [CTM] control unit) to connector X80/9 short circuit to ground (-).</li> <li>Cable from connector X80/9 to S126/2 (central locking switch) short circuit to ground (-)</li> <li>Central locking switch (S126) is faulty.</li> <li>Passenger door is actually open or misaligned.</li> </ol>
B1005	038	9005	26	The AB [ACM] control unit has unlocked the doors.	<p>Crash signal triggered. Inspect AB [ACM] control unit for faults. If an accident has occurred, repair all damage first. This fault code must be cleared so that the central locking system is functional again.</p>

NOTES:

## HVAC SYSTEMS CONTROL UNITS

For 2000-2006 NAFTA Sprinters, depending on optional equipment, the HVAC system control units may include:

1. HZR – Air Conditioning and Heater Control Unit
2. ZHE – Auxiliary Heater
3. ZUH – Auxiliary Heater Booster

**IMPORTANT NOTE:** This fault code guide covers original factory installed control units and systems. Some vehicles may have either aftermarket or dealer installed components that are not covered by this book. For fault codes or troubleshooting instructions on aftermarket or dealer installed components, refer to the documentation provided by the manufacturer of the component.

## HZR HEATER AND AIR CONDITIONING

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CD/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## Automatic Heating and Air Conditioning Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): HZR/KLA

Chrysler/Dodge: ATC

NOTE: HZR [ATC] was an optional component that was installed in most North American models from 2002-2006. Some US fleet operators opted for manual heat only (lever and cable controls) without A/C. It was optional for most Mercedes-Benz models in other markets. If the vehicle has no air conditioning, it does not have HZR and there is no electronic diagnosis possible with manual systems.

### Fault Code List:

Daimler		Dodge DRB3		Component or variable monitored (MB Component Number)	Detail, cause, or remedy
Fault Code	Sub Fault	Fault Code	Sub Fault		
B1001	005	9001	05	Evaporator temperature sensor (B29)	Short circuit to ground (-). a. Cable A81.1/13 to B29/1 has a short circuit to ground (-) b. Evaporator temperature sensor (B29) is faulty.
B1001	007	9001	07	Evaporator temperature sensor (B29)	Short circuit to voltage (+) or open circuit. a. Cable A81.1/13 to B29/1 has a short circuit to voltage (+) or open circuit. b. Cable B29/2 to splice point J343 has a short circuit to voltage (+) or open circuit. c. Cable J343 to A81.1/18 has a short circuit to voltage (+) or open circuit. d. Evaporator temperature sensor (B29) is faulty.
B1002	005	9002	05	Vent temperature sensor (B28)	Short circuit to ground (-). a. Cable A81.1/16 to B28/1 has a short circuit to ground (-). b. Vent temperature sensor (B28) is faulty.

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADRD	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Daimler		Dodge DRB3		Component or variable monitored  (MB Component Number)	Detail, cause, or remedy
Fault Code	Sub Fault	Fault Code	Sub Fault		
B1002	007	9002	07	Vent temperature sensor (B28)	<p>Short circuit to voltage (+) or open circuit.</p> <ol style="list-style-type: none"> <li>Cable A81.1/16 to B28/1 has a short circuit to voltage (+) or open circuit.</li> <li>Cable B28/2 to splice point J343 has a short circuit to voltage (+) or open circuit.</li> <li>Cable J343 to A81.1/18 has a short circuit to voltage (+) or open circuit.</li> <li>Vent temperature sensor (B28) is faulty.</li> </ol>
B1003	005	9003	05	Refrigerant pressure sensor (B56)	<p>Refrigerant sensor (B56) or external 5V supply short circuit to ground (-).</p> <ol style="list-style-type: none"> <li>Cable A81.1/11 to X82/12 has a short circuit to ground (-).</li> <li>Cable X82/12 to B56/3 has a short circuit to ground (-).</li> <li>Cable A81.1/19 to X82/11 has a short circuit to ground (-).</li> <li>Cable X82/11 to B56/2 has a short circuit to ground (-).</li> <li>Refrigerant pressure sensor (B56) is faulty</li> </ol>
B1003	007	9003	07	Refrigerant pressure sensor (B56)	<p>Refrigerant sensor (B56) or external 5V supply short circuit to voltage (+) or open circuit.</p> <ol style="list-style-type: none"> <li>Cable A81.1/11 to X82/12 has a short circuit to voltage (+) or open circuit.</li> <li>Cable X82/12 to B56/3 has a short circuit to voltage (+) or open circuit.</li> <li>Cable A81.1/19 to X82/11 has a short circuit to voltage (+) or open circuit.</li> <li>Cable X82/11 to B56/2 has a short circuit to voltage (+) or open circuit.</li> <li>Refrigerant pressure sensor (B56) is faulty</li> </ol>
B1004	005	9004	05	CAN signal faulty	No CAN message. Inspect CAN-Bus wiring
B1004	007	9004	07	CAN signal from KI [IC] instrument cluster	<p>Incorrect CAN signal from KI [IC] instrument cluster control unit.</p> <ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring.</li> <li>If fault codes are present in KI [IC] control unit, repair faults there first.</li> </ol>
B1004	012			CAN signal from KI [IC] instrument cluster	<p>No CAN signal from KI [IC] instrument cluster control unit.</p> <ol style="list-style-type: none"> <li>Inspect CAN-Bus wiring.</li> <li>If fault codes are present in KI [IC] control unit, repair faults there first.</li> </ol>
B1004	013			CAN-Bus network failure	The CAN-Bus network is offline.

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Daimler		Dodge DRB3		Component or variable monitored (MB Component Number)	Detail, cause, or remedy
Fault Code	Sub Fault	Fault Code	Sub Fault		
B1004	014	9004	0F	No CAN communication with engine control unit CDI (ECM)	Inspect CAN-Bus wiring and connections
B1005	005	9005	0F	Warm Water Cabin heater (E90) output	Short circuit to ground (-). a. Cable A81.1/10 to connector X82/7 has a short circuit to ground (-). b. Cable X82/7 to X165/6 has a short circuit to ground (-).  Note: ZUH [HBM] cabin heater (E90) is an optional component
B1005	007	9005	0F	Warm Water Cabin heater (E90) output	Short circuit to voltage (+) or open circuit. a. Cable A81.1/10 to connector X82/7 has a short circuit to voltage (+) or open circuit. b. Cable X82/7 to X165/6 has a short circuit to voltage (+) or open circuit.  Note: ZUH [HBM] cabin heater (E90) is an optional component
B1006	005	9006	05	A/C compressor clutch (Y38)	Short circuit to ground (-). a. Cable A81.1/12 to connector X82/9 has a short circuit to ground (-). b. Cable X82/9 to X195/3 has a short circuit to ground (-). c. Cable X195/3 to Y38/1 has a short circuit to ground (-). d. A/C compressor clutch (Y38) is faulty.
B1006	007	9006	07	A/C compressor clutch (Y38)	Short circuit to voltage (+) or open circuit. a. Cable A81.1/12 to connector X82/9 has a short circuit to voltage (+) or open circuit. b. Cable X82/9 to X195/3 has a short circuit to voltage (+) or open circuit. c. Cable X195/3 to Y38/1 has a short circuit to voltage (+) or open circuit. d. A/C compressor clutch (Y38) is faulty.

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ADM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Daimler		Dodge DRB3		Component or variable monitored (MB Component Number)	Detail, cause, or remedy
Fault Code	Sub Fault	Fault Code	Sub Fault		
B1007	005	9007	05	Blower motor stage 1 (M4)	<p>Short circuit to ground (-). Up to Dec 2001:</p> <ol style="list-style-type: none"> <li>One or more cables to series resistor (R10) have a short circuit to ground (-).</li> <li>Inspect fuse A12f21</li> <li>Blower (M4) is faulty.</li> </ol> <p>From Jan 2002:</p> <ol style="list-style-type: none"> <li>One or more cables to series resistor (R10) have a short circuit to ground (-).</li> <li>Inspect fuse A12f21</li> <li>Blower (M4) is faulty.</li> </ol>
B1007	007	9007	07	Blower motor stage 1 (M4)	<p>Short circuit to voltage (+) or open circuit. Up to Dec 2001:</p> <ol style="list-style-type: none"> <li>Cable A81.2/1 to M4/1 has a short circuit to voltage (+) or open circuit.</li> <li>Cable M4/2 to M4x1/2 or cable M4x1/2 to ground point W4 has an open circuit.</li> <li>Series resistor (R10) is faulty.</li> <li>Blower (M4) is faulty.</li> </ol> <p>From Jan 2002:</p> <ol style="list-style-type: none"> <li>Cable A81.2/1 to M4 has a short circuit to voltage (+) or open circuit.</li> <li>Cable M4/2 to M4x1/2 or cable M4x1/2 to ground point W4 has an open circuit.</li> <li>Series resistor (R10) is faulty.</li> <li>Blower (M4) is faulty.</li> </ol>
B1008	005	9008	05	Re-circulated air solenoid (Y95)	<p>Short circuit to ground (-). Up to Dec 2001:</p> <ol style="list-style-type: none"> <li>Cable A81.1/11 to X206/1 has a short circuit to ground (-).</li> <li>Cable X206/1 to Y95x1 has a short circuit to ground (-).</li> <li>Cable Y95x1 to Y95/1 has a short circuit to ground (-).</li> <li>Component (Y95) is faulty</li> </ol> <p>From Jan 2002:</p> <ol style="list-style-type: none"> <li>Cable A81.1/11 to X206/1 has a short circuit to ground (-).</li> <li>Cable X206/1 to M4x2/3 has a short circuit to ground (-).</li> <li>Cable M4x2/3 to Y95/1 has a short circuit to voltage (+) or an open circuit.</li> <li>Component (Y95) is faulty</li> </ol>

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Daimler		Dodge DRB3		Component or variable monitored (MB Component Number)	Detail, cause, or remedy
Fault Code	Sub Fault	Fault Code	Sub Fault		
B1008	007	9008	07	Re-circulated air solenoid (Y95)	<p>Short circuit to voltage (+) or open circuit. Up to Dec 2001:</p> <ol style="list-style-type: none"> <li>Cable A81.1/11 to X206/1 has a short circuit to voltage (+) or open circuit.</li> <li>Cable X206/1 to connector Y95x1 has a short circuit to voltage (+) or open circuit.</li> <li>Cable from connector Y95x1 to Y95/1 has a short circuit to ground (-).</li> <li>Cable Y95/2 to M4x1/2 has a short circuit to voltage (+) or open circuit.</li> <li>Cable M4x1/2 to ground point W4 has a short circuit to voltage (+) or open circuit.</li> <li>Re-circ air solenoid (Y95) is faulty</li> </ol> <p>From Jan 2002:</p> <ol style="list-style-type: none"> <li>Cable A81.1/11 to X206/1 has a short circuit to voltage (+) or open circuit.</li> <li>Cable X206/1 to M4x2/3 has a short circuit to voltage (+) or open circuit.</li> <li>Cable M4x2/3 to Y95/1 has a short circuit to voltage (+) or an open circuit.</li> <li>Cable M4x1/2 to ground point W4 has a short circuit to voltage (+) or open circuit.</li> <li>Re-circ air solenoid (Y95) is faulty</li> </ol> <p>NOTE: Ignore fault if HZR [ATC] control unit is installed with software version prior to 02.00 together with a new version re-circulated air solenoid (Y95) with integrated vacuum control unit.</p>
B1009	005	9009	05	Coolant circulation pump (M51)	<p>Short circuit to ground (-).</p> <ol style="list-style-type: none"> <li>Cable A81.1/2 to X82/5 has a short circuit to ground (-).</li> <li>Cable X82/5 to M51/2 has a short circuit to ground (-).</li> <li>Coolant circulation pump (M51) is faulty.</li> </ol>
B1009	007	9009	07	Coolant circulation pump (M51)	<p>Short circuit to voltage (+) or open circuit.</p> <ol style="list-style-type: none"> <li>Cable A81.1/2 to X82/5 has a short circuit to voltage (+) or open circuit.</li> <li>Cable X82/5 to M51/2 has a short circuit to voltage (+) or open circuit.</li> <li>Cable M51/1 to ground point W4 has a short circuit to voltage (+) or open circuit.</li> <li>Coolant circulation pump (M51) is faulty.</li> </ol>

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TGM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Daimler		Dodge DRB3		Component or variable monitored (MB Component Number)	Detail, cause, or remedy
Fault Code	Sub Fault	Fault Code	Sub Fault		
B100A	005	900A	05	Water cycle valve (Y37)	<p>Short circuit to ground (-).</p> <ol style="list-style-type: none"> <li>Cable A81.1/5 o X82/6 has a short circuit to ground (-).</li> <li>Cable X82/6 to water cycle valve connector Y37/1 has a short circuit to ground (-).</li> <li>Water cycle valve (Y37) is faulty.</li> </ol> <p>Note: In some service literature, water cycle valve may also be identified as "water clock pulse valve".</p>
B100A	007	900A	07	Water cycle valve (Y37)	<p>Short circuit to voltage (+) or open circuit.</p> <ol style="list-style-type: none"> <li>Cable A81.1/5 o X82/6 has a short circuit to voltage (+) or open circuit.</li> <li>Cable X82/6 to water cycle valve connector Y37/1 has a short circuit to voltage (+) or open circuit.</li> <li>Cable Y37/2 to ground point W4 has a short circuit to voltage (+) or open circuit.</li> <li>Water cycle valve (Y37) is faulty.</li> </ol> <p>Note: In some service literature, water cycle valve may also be identified as "water clock pulse valve".</p>
B100B	005	900B	05	Auxiliary fan relay (K77) for air conditioning auxiliary fan (M45)	<p>Short circuit to ground (-).</p> <ol style="list-style-type: none"> <li>Cable A81.1/3 o X82/1 has a short circuit to ground (-).</li> <li>Cable X82/1 to auxiliary fan relay (terminal 86) input K77/2 has a short circuit to ground (-).</li> <li>Relay for auxiliary fan (K77) is faulty.</li> <li>Fuse F119 is faulty.</li> <li>Auxiliary fan motor (M45) is faulty or fan has excessive debris preventing it from operating.</li> </ol>
B100B	007	900B	07	Auxiliary fan relay (K77) for air conditioning auxiliary fan (M45)	<p>Short circuit to voltage (+) or open circuit.</p> <ol style="list-style-type: none"> <li>Cable A81.1/3 o X82/1 has a short circuit to voltage (+) or open circuit.</li> <li>Cable X82 X82/1 to auxiliary fan relay (terminal 86) input K77/2 has a short circuit to voltage (+) or open circuit.</li> <li>Cable from (terminal 85) ground circuit K77/4 to ground point W5 has a short circuit to voltage (+) or open circuit.</li> <li>Relay for auxiliary fan (K77) is faulty.</li> <li>Fuse F119 is faulty.</li> <li>Auxiliary fan motor (M45) is faulty or fan has excessive debris preventing it from operating.</li> </ol>

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Daimler		Dodge DRB3		Component or variable monitored (MB Component Number)	Detail, cause, or remedy
Fault Code	Sub Fault	Fault Code	Sub Fault		
B100C	015	900C	0F	Self test failure HZR [ATC] control unit (A81): Heating mode	<p>One or more of the following operating conditions were not met, so self test failure prevented heating operation:</p> <ul style="list-style-type: none"> <li>a. Engine speed was less than 600 rpm</li> <li>b. Coolant temperature was either under 70°C (158°F) or over 110°C (230°F).</li> </ul> <p>Inspect engine for faults. Inspect engine coolant for correct water, anti-freeze, and coolant mixture ratio. If ambient air is too cold, allow vehicle to run at idle to warm up to temperature then cycle key to initiate self test again. If ambient air is very hot, allow vehicle to cool prior to starting.</p>
B100D	015	900D	0F	Self-test failure HZR [ATC] control unit (A81): Cooling (air conditioning) mode	<p>One or more of the following operating conditions were not met, so self test failure prevented air conditioning operation:</p> <ul style="list-style-type: none"> <li>a. Engine speed was less than 600 rpm.</li> <li>b. Coolant temperature was either under 70°C (158°F) or over 110°C (230°F).</li> <li>c. Ambient air temperature must be warmer than 15°C (59°F).</li> <li>d. Refrigerant pressure is either under 2 bar (29 psi) or over 24 bar (348 psi).</li> </ul> <p>Inspect engine for faults. Inspect refrigerant lines for leaks and A/C compressor for operation. Inspect engine coolant for correct anti-freeze mixture ratio. If ambient air is too cold, allow vehicle to run at idle to warm up to temperature then cycle key to initiate self test again. If ambient air is very hot, allow vehicle to cool prior to starting.</p>

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Daimler		Dodge DRB3		Component or variable monitored  (MB Component Number)	Detail, cause, or remedy
Fault Code	Sub Fault	Fault Code	Sub Fault		
B100E	015	900E	0F	Self-test failure HZR [ATC] control unit (A81): General mode	<p>One or more of the following operating conditions were not met, so self test failure prevented air conditioning operation:</p> <ul style="list-style-type: none"> <li>e. Engine speed was less than 600 rpm.</li> <li>f. Coolant temperature was either under 70°C (158°F) or over 110°C (230°F).</li> <li>g. Ambient air temperature must be warmer than 15°C (59°F).</li> <li>h. Refrigerant pressure is either under 2 bar (29 psi) or over 24 bar (348 psi).</li> </ul> <p>Inspect engine for faults. Inspect refrigerant lines for leaks and A/C compressor for operation. Inspect engine coolant for correct anti-freeze mixture ratio. If ambient air is too cold, allow vehicle to run at idle to warm up to temperature then cycle key to initiate self test again. If ambient air is very hot, allow vehicle to cool prior to starting.</p>

NOTES:

## ZHE AUXILIARY HEATER

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDWZ	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## ZHE Auxiliary Cabin Heater Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): ZHE

Chrysler/Dodge: CHM

**Note:** There are more than 14 different versions and option derivatives of auxiliary heater control units. This fault code list is a generalized list that covers most models of AIR heaters. For versions not covered or aftermarket versions, contact Eberspächer or Webasto for further information.

### Fault Code List:

Daimler	Chrysler (DRB3)		Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
	Fault Code	Sub Fault		
00000	00	00	ZHE [CHM] control unit (E18)	ZHE [CHM] control unit is faulty.
00001			ZHE [CHM] control unit (E18)	ZHE [CHM] control unit is faulty.
00100	01	00	Auxiliary heater doesn't start	<ul style="list-style-type: none"> <li>a. Flame sensor is faulty.</li> <li>b. Vehicle fuel tank is empty.</li> <li>c. Fuel pump strainer is dirty or fuel is contaminated.</li> <li>d. Air in fuel lines.</li> <li>e. Metering pump not calibrated.</li> <li>f. Heater intake or exhaust is blocked by debris or damaged.</li> <li>g. Glow plug is dirty or shorted.</li> <li>h. ZHE [CHM] control unit is faulty.</li> </ul>

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFB	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBW	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Daimler	Chrysler (DRB3)		Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
	Fault Code	Sub Fault		
00104	01	04	Heater locked-out	<p>Too many unsuccessful attempts were made to start the heater:</p> <ol style="list-style-type: none"> <li>Flame sensor is faulty.</li> <li>Vehicle fuel tank is empty.</li> <li>Fuel pump strainer is dirty or fuel is contaminated.</li> <li>Air in fuel lines.</li> <li>Metering pump not calibrated.</li> <li>Heater intake or exhaust is blocked by debris or damaged.</li> <li>Glow plug is dirty or shorted.</li> <li>ZHE [CHM] control unit is faulty.</li> </ol> <p>Lock-out is cancelled by clearing fault code memory.</p>
00200	02	00	Flame-out during operation	<p>Flame-out has occurred which has halted operation:</p> <ol style="list-style-type: none"> <li>Flame sensor is faulty.</li> <li>Vehicle fuel tank is empty.</li> <li>Fuel pump strainer is dirty or fuel is contaminated.</li> <li>Air in fuel lines.</li> <li>Metering pump not calibrated.</li> <li>Heater intake or exhaust is blocked by debris or damaged.</li> <li>Glow plug is dirty or shorted.</li> <li>ZHE [CHM] control unit is faulty.</li> </ol>
00301	03	01	Undervoltage (voltage >10.5V)	<ol style="list-style-type: none"> <li>The battery voltage is too low or battery will not sustain a charge.</li> <li>Voltage supply to ZHE [CHM] control unit (E18) is faulty or wiring is damaged.</li> <li>Check Fuse F9.</li> <li>Inspect vehicle charging system. Alternator or voltage regulator is faulty.</li> </ol>
00302	03	02	Overvoltage (voltage <15.5V)	<ol style="list-style-type: none"> <li>Inspect vehicle charging system. Alternator or voltage regulator is faulty.</li> <li>ZHE [CHM] control unit is faulty.</li> </ol>
00400	04	00	Premature flame detected	<ol style="list-style-type: none"> <li>Flame sensor is faulty.</li> <li>ZHE [CHM] control unit is faulty.</li> </ol>
00501	05	01	Flame sensor has short circuit	<ol style="list-style-type: none"> <li>Flame sensor is faulty.</li> <li>ZHE [CHM] control unit is faulty.</li> </ol>
00502	05	02	Flame sensor has open circuit	<ol style="list-style-type: none"> <li>Flame sensor is faulty.</li> <li>ZHE [CHM] control unit is faulty.</li> </ol>

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Daimler Fault Code	Chrysler (DRB3)		Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
	Fault Code	Sub Fault		
00503			Flame sensor is overheated	a. Flame sensor is faulty. b. ZHE [CHM] control unit is faulty.
00601	06	01	Temperature sensor short circuit	a. Temperature sensor is faulty. b. ZHE [CHM] control unit is faulty.
00602	06	02	Temperature sensor open circuit	a. Temperature sensor is faulty. b. ZHE [CHM] control unit is faulty.
00701	07	01	Metering pump (M19) short circuit	a. Cable from M19/1 to connector X5.2/1 short circuit. b. Cable from X5.2/1 to E18.D/3 short circuit c. Metering pump (M19) is faulty. d. ZHE [CHM] control unit is faulty.
00702	07	02	Metering pump (M19) open circuit	a. Cable from M19/1 to connector X5.2/1 open circuit. b. Cable from M19/2 to X5.2/2 open circuit. c. Cable from X5.2/1 to E18.D/5 open circuit d. Cable from X5.2/2 to X5.1/4 open circuit. e. Cable from X5.1/4 to chassis ground point W5 open circuit. f. Metering pump (M19) is faulty. g. ZHE [CHM] control unit is faulty.
00801	08	01	Combustion fan motor short circuit	a. Cables to fan motor have a short or open circuit. b. ZHE [CHM] control unit is faulty
00802	08	02	Combustion fan motor open circuit	a. Cables to fan motor have a short or open circuit. b. ZHE [CHM] control unit is faulty
00803	08	03	Combustion fan speed incorrect	a. Fan is blocked by debris. b. Fan motor is faulty. c. Cables to fan motor have a short or open circuit. d. ZHE [CHM] control unit is faulty.

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KJ	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDU/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBB	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Daimler	Chrysler (DRB3)		Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
	Fault Code	Sub Fault		
00901	09	01	Glow plug short circuit	<ul style="list-style-type: none"> <li>a. Cable from E18.D/6 to glow plug short circuit.</li> <li>b. Cable from E18.D/9 to glow plug short circuit.</li> <li>c. Glow plug has internal short.</li> <li>d. ZHE [CHM] control unit is faulty.</li> </ul>
00902	09	02	Glow plug open circuit	<ul style="list-style-type: none"> <li>a. Cable from E18.D/6 to glow plug open circuit.</li> <li>b. Cable from E18.D/9 to glow plug open circuit.</li> <li>c. Glow plug has internal fault.</li> <li>d. ZHE [CHM] control unit is faulty.</li> </ul>
01000	0A	00	Auxiliary heater has overheated	<ul style="list-style-type: none"> <li>a. Overheating sensor is faulty.</li> <li>b. Cable to overheating sensor has an open circuit.</li> <li>c. ZHE [CHM] control unit has overheated (&gt;340C)</li> <li>d. Air intake is severely restricted.</li> <li>e. Exhaust is damaged or blocked.</li> <li>f. Flame sensor is faulty.</li> <li>g. ZHE [CHM] control unit is faulty.</li> </ul>
01004	0A	04	Auxiliary heater has overheated repeatedly (Lock-out)	<ul style="list-style-type: none"> <li>a. Overheating sensor is faulty.</li> <li>b. Cable to overheating sensor has an open circuit.</li> <li>c. ZHE [CHM] control unit has overheated (&gt;340C)</li> <li>d. Air intake is severely restricted.</li> <li>e. Exhaust is damaged or blocked.</li> <li>f. Flame sensor is faulty.</li> <li>g. ZHE [CHM] control unit is faulty.</li> </ul> <p>Lock-out is cancelled by clearing fault code memory.</p>
01201	0B	01	Heater timer display short circuit	<ul style="list-style-type: none"> <li>a. Cable from E18.D/7 to connector X5.1/6 short circuit.</li> <li>b. Cable from X5.1/6 to X80/17 short circuit.</li> <li>c. Cable from X80/17 to heater timer display A71/6 short circuit.</li> <li>d. Cable from E18.D/13 to X5.1/5 short circuit.</li> <li>e. Cable from X5.1/5 to X80/16 short circuit.</li> <li>f. Cable X80/16 to heater display A71/9 short circuit.</li> <li>g. Heater display is faulty or damaged.</li> <li>h. ZHE [CHM] control unit is faulty.</li> </ul>
01202	0B	02	Heater timer display open circuit	<ul style="list-style-type: none"> <li>a. Cable from E18.D/7 to connector X5.1/6 open circuit.</li> <li>b. Cable from X5.1/6 to X80/17 open circuit.</li> <li>c. Cable from X80/17 to heater timer display A71/6 open circuit.</li> <li>d. Cable from E18.D/13 to X5.1/5 open circuit.</li> <li>e. Cable from X5.1/5 to X80/16 open circuit.</li> <li>f. Cable X80/16 to heater display A71/9 open circuit.</li> <li>g. Heater display is faulty or damaged.</li> <li>h. ZHE [CHM] control unit is faulty.</li> </ul>

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Daimler	Chrysler (DRB3)		Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
	Fault Code	Sub Fault		
01301	0D	01	Overheating sensor has short circuit	a. Overheating sensor is faulty. b. ZHE [CHM] control unit is faulty.
01302	0D	02	Overheating sensor has open circuit	a. Overheating sensor is faulty. b. ZHE [CHM] control unit is faulty.
01303			Overheating sensor is above limit	a. Overheating sensor is faulty. b. ZHE [CHM] control unit has overheated (>340°C) c. Air intake is severely restricted. d. Flame sensor is faulty. e. ZHE [CHM] control unit is faulty.
01501			EDW [SSM] connection open circuit	a. Cable E18.D/2 to connector X5.1/7 open circuit. b. Cable X5.1/7 to EDW [SSM] control unit A82.1/6 open circuit. c. EDW [SSM] control unit has fault codes stored. d. ZHE [CHM] control unit is faulty.
01502			EDW [SSM] connection short circuit	a. Cable E18.D/2 to connector X5.1/7 short circuit. b. Cable X5.1/7 to EDW [SSM] control unit A82.1/6 short circuit. c. EDW [SSM] control unit has fault codes stored. d. ZHE [CHM] control unit is faulty.
	10	01	Fan stage 1 relay control shorted	a. Fan relay is faulty. b. ZHE [CHM] control unit is faulty.
	10	02	Fan stage 1 relay control open	a. Fan relay is faulty. b. ZHE [CHM] control unit is faulty.

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RPH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## ZUH AUXILIARY HEATER BOOSTER

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RO	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CD/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

## ZUH Auxiliary Heater Booster Control Unit

### Acronyms:

Daimler (Mercedes-Benz/Freightliner): ZUH (ZüH)

Chrysler/Dodge: HBM

**Note:** There are more than 14 different versions and option derivatives of auxiliary heater control units. This fault code list is a generalized list that covers most models of COOLANT heaters. For versions not covered or aftermarket versions, contact Eberspächer or Webasto for further information.

### Fault Code List:

Daimler	Chrysler (DRB3)		Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
Fault Code	Fault Code	Sub Fault		
00000	00	00	ZUH [HBM] control unit (E18)	ZUH [HBM] control unit is faulty.
00100	01	00	Auxiliary heater doesn't start	<ul style="list-style-type: none"> <li>a. Roll-over switch may be activated.</li> <li>b. Vehicle fuel tank is empty.</li> <li>c. Fuel pump strainer is dirty or fuel is contaminated.</li> <li>d. Air in fuel lines.</li> <li>e. Metering pump not calibrated.</li> <li>f. Heater intake or exhaust is blocked by debris or damaged.</li> <li>g. Glow plug is dirty or shorted.</li> <li>h. ZUH [HBM] control unit is faulty.</li> </ul>

### Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	WA	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	WA	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Daimler	Chrysler (DRB3)		Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
	Fault Code	Sub Fault		
00104	01	04	Heater locked-out after 10 start attempts	<p>Too many unsuccessful attempts were made to start the heater:</p> <ol style="list-style-type: none"> <li>Vehicle fuel tank is empty.</li> <li>Fuel pump strainer is dirty or fuel is contaminated.</li> <li>Air in fuel lines.</li> <li>Metering pump not calibrated.</li> <li>Heater intake or exhaust is blocked by debris or damaged.</li> <li>Glow plug is dirty or shorted.</li> <li>Fuel filter is dirty.</li> </ol> <p>Lock-out is cancelled by clearing fault code memory.</p>
00200	02	00	Flame-out during operation	<p>Flame-out has occurred which has halted operation:</p> <ol style="list-style-type: none"> <li>Flame sensor is faulty.</li> <li>Vehicle fuel tank is empty.</li> <li>Fuel pump strainer is dirty or fuel is contaminated.</li> <li>Air in fuel lines.</li> <li>Metering pump not calibrated.</li> <li>Heater intake or exhaust is blocked by debris or damaged.</li> <li>Glow plug is dirty or shorted.</li> <li>ZUH [HBM] control unit is faulty.</li> </ol>
00301	03	01	Undervoltage (voltage >10.5V)	<ol style="list-style-type: none"> <li>The battery voltage is too low or battery will not sustain a charge.</li> <li>Voltage supply to ZUH [HBM] control unit (E18) is faulty or wiring is damaged.</li> <li>Check Fuse F9.</li> <li>Inspect vehicle charging system. Alternator or voltage regulator is faulty.</li> </ol>
00302	03	02	Overvoltage (voltage <15.9V)	<ol style="list-style-type: none"> <li>Inspect vehicle charging system. Alternator or voltage regulator is faulty.</li> <li>ZUH [HBM] control unit is faulty.</li> </ol>
00400	04	00	Premature flame detected	<ol style="list-style-type: none"> <li>Flame sensor is faulty.</li> <li>Intake or exhaust lines are blocked.</li> <li>ZUH [HBM] control unit is faulty.</li> </ol>
00501	05	01	Flame sensor has short circuit	Flame sensor is faulty.
00502	05	02	Flame sensor has open circuit	Flame sensor is faulty.
00601	06	01	Temperature sensor short circuit	Temperature sensor is faulty.
00602	06	02	Temperature sensor open circuit	Temperature sensor is faulty.

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Daimler	Chrysler (DRB3)		Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
	Fault Code	Sub Fault		
00701	07	01	Metering pump (M54) short circuit	a. Cable from M54/1 to connector X165/4 short circuit. b. Metering pump (M54) is faulty.
00702	07	02	Metering pump (M54) open circuit	a. Cable from M54/1 to connector X165/4 open circuit. b. Cable from M54/2 to chassis ground point W7 open circuit. c. Metering pump (M54) is faulty.
00801	10	01	Blower fan motor short circuit	a. Blower motor is blocked by debris. b. Blower motor is faulty.
00802	10	02	Blower fan motor open circuit	Blower motor is faulty
00803	08	03	Blower fan speed incorrect	a. Fan is blocked by debris. b. Fan motor is faulty. c. ZUH [HBM] control unit is faulty.
00901	09	01	Glow plug short circuit	a. Cable from E90/9 to E90r18 short circuit to ground (-). b. Glow plug has internal short.
00902	09	02	Glow plug open circuit	a. Cable from E90/12 to E90r18 open circuit. b. Cable from E90/9 to E90r18 open circuit. c. Glow plug has internal fault.
01000	0A	00	Auxiliary heater has overheated	a. Overheating sensor is faulty. b. Cable to overheating sensor has an open circuit. c. ZUH [HBM] control unit has overheated. d. Coolant level is too low. e. Engine water pump is faulty. f. Auxiliary circulation pump is faulty.
01004	0A	04	Auxiliary heater has overheated repeatedly (Lock-out)	a. Overheating sensor is faulty. b. Cable to overheating sensor has an open circuit. c. ZUH [HBM] control unit has overheated (>340°C) d. Air intake is severely restricted. e. Exhaust is damaged or blocked. f. Flame sensor is faulty. g. ZUH [HBM] control unit is faulty.  Lock-out is cancelled by clearing fault code memory.

Daimler (Mercedes-Benz and Freightliner) and Dodge Acronyms used:

DAIMLER	DODGE	DESCRIPTION	DAIMLER	DODGE	DESCRIPTION
AB	ACM	Airbag	ESP	CAB	Traction Control
ABS	CAB	Anti-lock Braking System	EWM	SLA	Gear Shift Lever Control Unit
ABW	ACM	Airbag with Window Airbag	HZR	ATC	Heating/Air Conditioning Control
APS	N/A	Navigation System (MB Only)	KI	IC	Instrument Cluster
ARS	N/A	All-Wheel Drive (MB Only)	RD	RADIO	Radio (Factory installed radios only)
BA	RFH	Backup Assist (Factory version)	WSP	SKREEM	Immobilizer System
CDI/CR	ECM	Common Rail Diesel Injection	ZHE	CHM	Auxiliary Heater
EDW2	SSM	Anti-theft Alarm	ZUH	HBM	Auxiliary Heater Booster
EGS	TCM	Automatic Transmission Control	ZV	CTM	Central Locking System

N/A= Not Applicable for US Models

Daimler	Chrysler (DRB3)		Monitored Variable Or Component (MB Component Number)	Detail, cause, or remedy
	Fault Code	Sub Fault		
01101	0B	00	Auxiliary water pump (M51) short circuit	<ul style="list-style-type: none"> <li>a. Auxiliary water pump (M51) is faulty</li> <li>b. Fault codes are active in air conditioning KLA [ATC] control unit (if fitted).</li> </ul>
01102	0B	01	Auxiliary water pump (M51) open circuit	<ul style="list-style-type: none"> <li>a. Auxiliary water pump (M51) is faulty.</li> <li>b. Fault codes are active in air conditioning KLA [ATC] control unit (if fitted).</li> </ul>
01301	0D	01	Overheating sensor has short circuit	Overheating sensor is faulty.
01302	0D	02	Overheating sensor has open circuit	Overheating sensor is faulty.

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## *The Complete Sprinter Fault Code Guide, North American Edition*

*The Dodge/Freightliner/Mercedes Sprinter is the world's bestselling and highest rated vehicle for medium duty delivery, service, public safety, and public works fleets. Technical information for servicing the Sprinter has become one of the most sought after commodities with very limited availability from the OEM(s). With the most recent change in Sprinter OEM service and distribution, and the lack of uniformity in service information between Chrysler-Dodge and Daimler, this book bridges the gap and provides the professional fleet mechanic with a valuable resource to use in diagnosing vehicle issues. The format of this book is not "diagnostic tool specific" so it can be used by any user with various types of OEM and aftermarket scan tools.*

*Volume 1 covers all vehicle versions, models, and systems for North American Sprinters (USA/Canada/Mexico) from 2000-2006 model years, including:*

*Dodge 2500/3500 C/HC/SHC*

*Freightliner 2500/3500 C/HC/SHC*

*Mercedes-Benz 316CDI/416CDI*

### *About the Author:*

*Eric Ord has been the most well known independent source of Sprinter technical information in the US. He has developed three separate scan tools for Sprinter, one of which was delivered to all the locations in the US and Canada for the world's largest private fleet owner and operator. Over the years Eric has conducted numerous training courses on Sprinter and has authored hundreds of technical documents and articles on Sprinter diagnosis and repair.*

*Through his company, Megara LLC with offices in the US and Europe, Eric is involved in projects with commercial and municipal fleets on Sprinter vehicles as well as other projects for US and foreign military customers with Mercedes-Benz vehicles. As a consultant to many larger companies, Eric has been able to merge the elements of theoretical knowledge and practical experience into a format that is easy to learn, use, and apply. In addition to Daimler trucks, vans, and utility vehicles, Megara has previously developed projects for VAG and Fiat/IVECO commercial and military vehicle applications as well.*

*Eric has released his first commercial book on Sprinter, "The Complete Sprinter Fault Code Guide" as a two volume North American Edition in March of 2010. This book is the first fault code guide ever available for Sprinter vehicles.*

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