



NOVEMBER 2016 PASSENGER CAR TECHNICAL TOPICS

November 15, 2016



Mercedes-Benz

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From Xentry Release 09/16 Diagnosis For All Engines Supports The Use Of A Smoke Tester

ALL PASSENGER CARS: GP 00.00

EXPLANATION:

Alternative diagnostic tool to the well know W611 589 02 21 00 leak tester.

ACTION:

Use of approved smoke tester for the following guided tests:

- Check charge air system for leak tightness
- Check vacuum system for leak tightness
- Check exhaust-system for leaks
- Leak test of fuel tank

Leak Testing With Smoke

ALL PASSENGER CARS: GP 00.00

EXPLANATION:

Some smoke machines use an oil that may contaminate sensors. Only smoke leak testers that meet the minimum requirements as described in WIS WS09.00-P-0028B and use UltraTraceUV test fluid are approved for use.


ACTION:

Mercedes-Benz recommends the Smoke Wizard GLD40 and the Bosch SMT300 testers with test liquid UltraTraceUV; PN A000 989 47 00 09. Both are available through SSEP.


Leak Testing With Smoke (cont.)



Smoke Machine Tester
with UltraTraceUV Dye
Solution
GLOBAL LEAK DETECTION USA
INC.


Add to Order 

\$713.00
757-SMT 300_BLACK


Request a Call 



Smoke Wizard Diagnostic
Smoke Vapor Machine
GLOBAL LEAK DETECTION USA
INC.

Add to Order 

\$1,060.00
757-GLD-40_BLACK

Request a Call 

User Guide For AMG Topics

AMG VEHICLES: GP 00.00

EXPLANATION:

A living document containing valuable information regarding AMG vehicles is posted to Star TekInfo under "MB Workshop Resources." Always refer to Star TekInfo for latest version.

ACTION ON NEXT PAGE!

User Guide For AMG Topics (cont.)

ACTION:

The AMG guide contains the following information:

Engine:

- Adaptation
- Procedure for engine replacement

Transmission:

- Adaptation of NAT2
- Measuring and adjusting the transmission oil level
- Transmission oil type for NAT2
- Transmission serial number and documentation

Brakes:

- Bed-in specification

User Guide For AMG Topics (cont.)



User Guide for AMG Topics

Engine:

- Adaptation
- Procedure for engine replacement

Transmission:


- Adaptation of NAT2
- Measuring and adjusting the transmission oil level
- Transmission oil type for NAT2
- Transmission serial number and documentation

Brakes:

- Bed-in specification

Attachments:

- Overview of transmission models
- NAT3 shift elements
- Engine performance data
- Storage locations for .log and .txt files
- Check engine oil level BR190 with M178



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MB Workshop Resources: All SubCategories

Issue Date	Categories ↳ Sub Categories	Document	Description
09-21-2016	MB Workshop Resources ↳ VIN, License & Registration	MY2017 Technical Data 📄 (123kb)	MY2017 Models All Technical Data Version September 14, 2016
07-15-2016	MB Workshop Resources ↳ Workshop Process Resources	RQI Tool User Guide 📄 (2MB)	RQI Tool User Guide
06-22-2016	MB Workshop Resources ↳ Brochures and Guides	User Guide for AMG Topics 📄 (2MB)	User Guide for AMG Topics
05-23-2016	MB Workshop Resources ↳ Workshop Process Resources	MBUSA Position Statement on Wheel Repair and Reconditioning 📄 (92kb)	MBUSA Position Statement on and Reconditioning
05-23-2016	MB Workshop Resources ↳ Workshop Process Resources	MBUSA Position Statement on Steering Components	MBUSA Position Statement on Components

Squeaking Noise From Rear Of Engine At Idle And On An Incline

463 W/ M157: GP 01.20

CAUSE / EXPLANATION:

Inherent to current design of engine ventilation system.

CORRECTION:

Issue is under investigation but at this time appears to be normal due to design. AMG is still requesting cases so create a PTSS case if a vehicle with this condition is encountered.

Special Tool W270 589 00 68 00

ENGINES M133, M176, M177, M178, M270, M274: GP 07.00

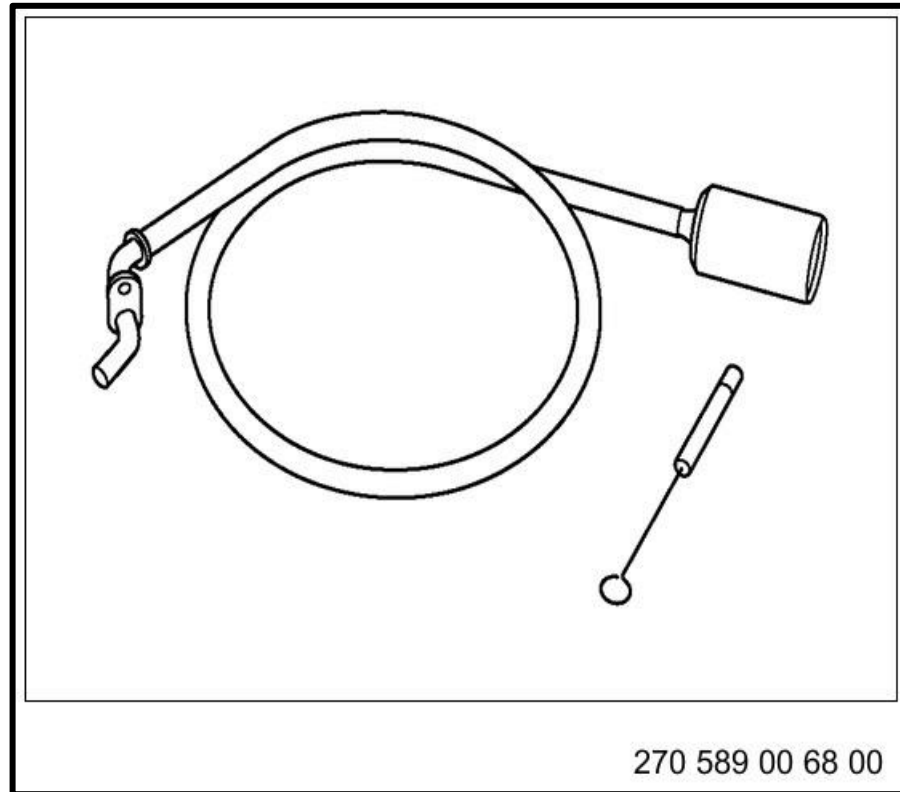
EXPLANATION:

When dismantling spark plugs there can be dirt particles in the shaft.

ACTION:

After removing the ignition coils, blow out any residue in the spark plug recesses using compressed air. It may be necessary to vacuum recesses using special tool W270 589 00 68 00 to ensure no contamination or foreign objects enter the engine when spark plugs are removed.

Special Tool W270 589 00 68 00 (cont.)



Fuel Rail Fuel Filter

ENGINES W/ HIGH PRESSURE FUEL INJECTION: GP 07.00

EXPLANATION:

Engine performance concerns may be caused by a restricted high pressure fuel rail fuel filter.

ACTION:

The fuel rail on high pressure gasoline injection engines may have a filter pressed into the rail fuel inlet. This filter is made of metal and may catch particles missed by the main fuel tank filter or introduced when the system is open. Consider inspection of this filter in the fuel rail for related engine performance concerns. Tap the rail inlet onto a sheet of clean white paper and inspect for debris.

Rattling Noises From The Front Of The Engine On The Left In The Area Of The Turbo

PASSENGER CARS W/ OM651: GP 09.40

CAUSE / EXPLANATION:

A rattle from drive belt components can be misdiagnosed as emanating from the aluminum bypass valve inside the air duct housing resulting in incorrect replacement of housing.

CORRECTION:

LI09.40-P-064267 has been updated to include steps to check components of the guide belt prior to replacement of the air duct housing.

Transmission Additive A001 989 94 03 09

TRANSMISSION 724.2 (NAG2 HYBRID, 724.0 (FDCT): GP 27.00

EXPLANATION:

Foaming of the transmission fluid can lead to the following complaints (generally after high performance driving):

- 724.2 (NAG2 Hybrid) – Rough shifting
- 724.0 (FDCT) – Screeching noise from pump

ACTION:

WIS directs to add the transmission oil additive during a change of the transmission fluid. Please order and fill in additive if available. If A001 989 94 03 09 is not available, you can continue to service the transmission without filling with the additive.

Humming / Howling Noises Heard From Underfloor Area From Idle To Approx. 2000rpm (Above 2000rpm Noise Drowned Out By Engine Noise)

216, 217, 221, 222, 230 AS OF MY2006, 231 W/ CODE 487 (ABC): GP 32.50

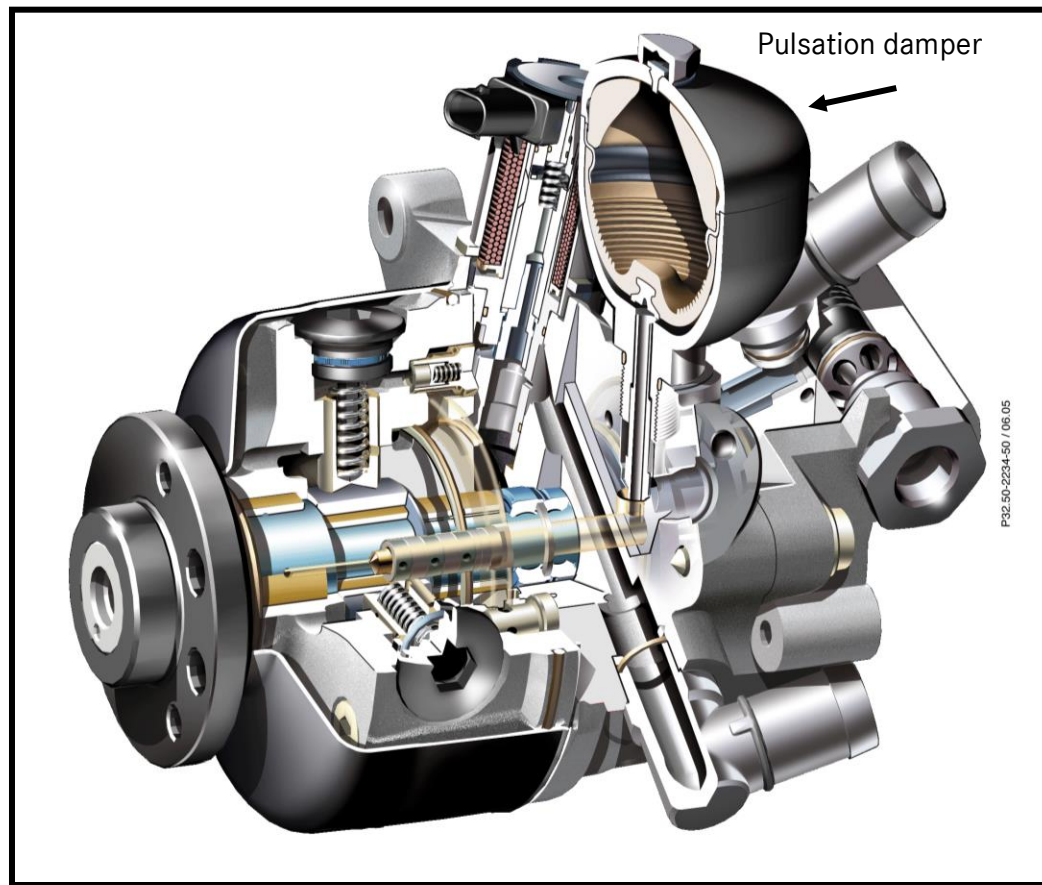
CAUSE / EXPLANATION:

The QEC has reported that many ABC tandem pumps have been replaced when only the pulsation damper is needed.

CORRECTION:

With the introduction of ABC PLUS (as of model year 2006), the pulsation damper is located on the tandem pump and can be replaced separately. Replacement of the entire ABC tandem pump is not required. Any ABC tandem pumps replaced for noises which are synonymous to the noise described in the LI may be subject to debit. See LI32.50-P-048280 for further information.

Humming / Howling Noises Heard From Underfloor Area From Idle To Approx. 2000rpm (Above 2000rpm Noise Drowned Out By Engine Noise) (cont.)



Note Difference Between Tire Pressure Specs Posted On B-Pillar vs. Fuel Filler Door

ALL PASSENGER CARS: GP 40.15

EXPLANATION:

- The pressures located on the Tire Pressure Table (Fuel Door) contains the min and max loading pressures, and also the max pressure with higher speeds (various conditions)
- The pressures located on the Tire and Loading Information placard(B-pillar) are for max load at max speed

CORRECTION:

Detailed information regarding the Tire and Loading Information placard and the Tire Pressure Table can be found in the owners manual.

Note Difference Between Tire Pressure Specs Posted On B-Pillar vs. Fuel Filler Door (cont.)

The pressures located on the Tire Pressure table (fuel door) contains the min and max loading pressures, and also the max pressure with higher speeds (various conditions).

The pressures located on the Tire and Loading Information placard (B-Pillar) are for maximum load at max. speed.

Fuel door “maximum load” (44 psi) + high speed (4 psi) = B-Pillar (48 psi)

Fuel Door

A 166 584 56 15

COLD TIRE PRESSURE	
normal load	32 psi 32 psi
maximum load	41 psi 44 psi
Warm tires up to: + 4 psi	
For driving more than 100 mph: + 4 psi	

B-Pillar

TIRE AND LOADING INFORMATION		RENSEIGNEMENTS SUR LES PNEUS ET LE CHARGEMENT	
SEATING CAPACITY	TOTAL	FRONT	REAR
NOMBRE DE PLACES		AVANT	ARRIERE
The combined weight of occupants and cargo should never exceed 400 lbs (180 kg). Le poids total des occupants et des bagages ne doit jamais dépasser 400 lb (180 kg).		400 lbs (180 kg)	1080 lbs (490 kg)
TIRE (PNEU)	SIZE (DIMENSION)	COLD TIRE PRESSURE (PRESSION DES PNEUS A FROID)	
FRONT (AVANT)	215/50 R17	310 KPA, 45 PSI	
REAR (ARRIERE)	215/50 R17	330 KPA, 48 PSI	
SPARE (DE SECOURS)	T155/90 R18 113M	420 KPA, 60 PSI	

Recommended tire pressures

The recommended tire pressure applies to the tires mounted at the factory.

The Tire and Loading Information placard contains the recommended tire pressures for cold tires on a fully loaded vehicle and for the maximum permissible vehicle speed.

The tire pressure table contains the recommended pressures for cold tires for various operating conditions, i.e. differing load and speed conditions.

Multiple Misfires Usually During High Load Acceleration

190 W/ M178: GP 47.00

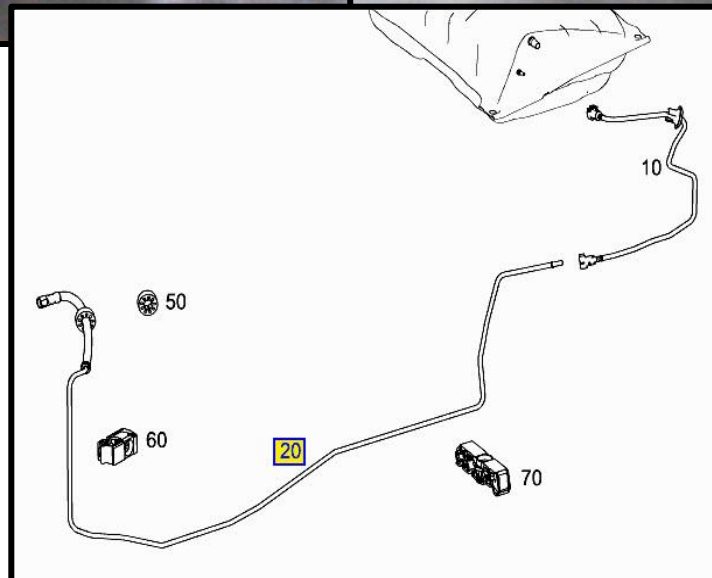
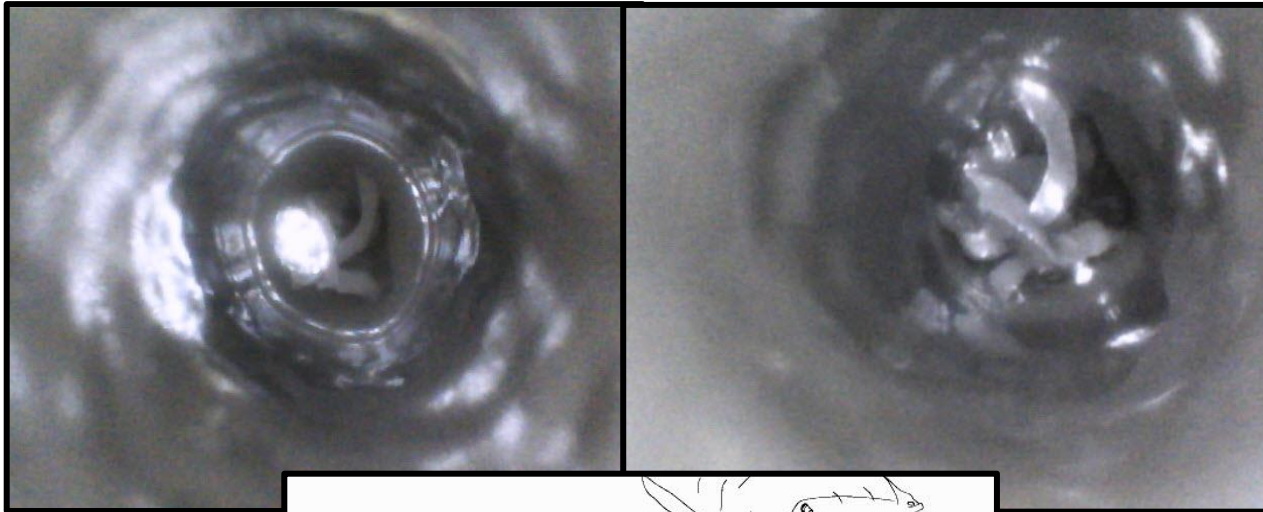
CAUSE / EXPLANATION:

Inner liner of low pressure supply hose has collapsed.

CORRECTION:

Include inspection of inner liner during course of diagnoses. If issue found, replace fuel lines from tank to the high pressure side (engine side). Line A190 470 02 00 must be installed. EPC includes a note that the old part number must not be installed.

Multiple Misfires Usually During High Load Acceleration (cont.)



Fuel Gauge Will Reach Maximum After Refueling But Measured Amount On Fuel Pump Does Not Match Perceived Tank Volume And/or Fuel Level Drops Quickly After Refueling

453 PRODUCED PRIOR TO 5/18/2016 / UP TO VIN # K129117: GP 47.10

CAUSE / EXPLANATION:

LI47.10-P-063064 has been updated to remove the step to SCN code the Instrument Cluster.

NOTE: This is an update from the August 2016 Webcast.

CORRECTION ON NEXT SLIDE!

Fuel Gauge Will Reach Maximum After Refueling But Measured Amount On Fuel Pump Does Not Match Perceived Tank Volume And/or Fuel Level Drops Quickly After Refueling (cont.)

CORRECTION:

Follow the steps listed in LI47.10-P-063064:

1. The step for SCN coding of the cluster has been removed
2. Replace the Fuel Tank after you ensure the fuel tank has not already been replaced and that the vehicle is a Smart 453 produced prior to June 9th of 2016 and precedes the Last 7 of VIN number K136240
3. A note has been added to open a PTSS case if this is a repeat failure after tank replacement. Insure to include whether the IC was SCN coded on the previous visit.

Catalyst Damage Down The Center Of The Monolith

M274: GP 49.10

CAUSE / EXPLANATION:

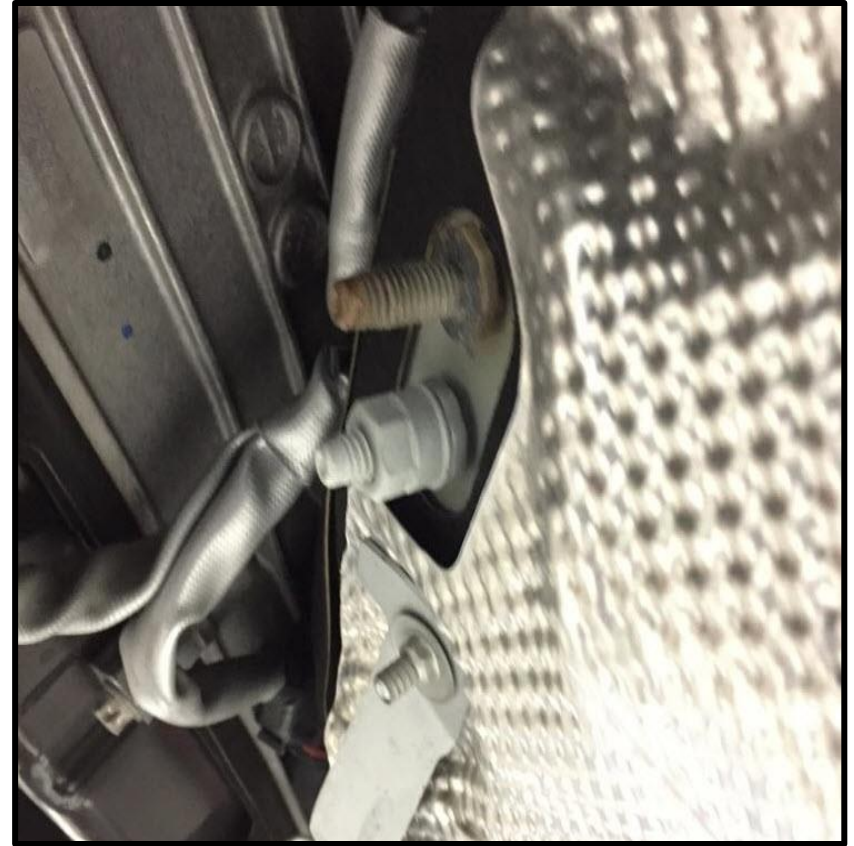
Improper connection at body ground strap results in power loss at injectors and coils.

NOTE: Faults for misfires in multiple cylinders may exist.

CORRECTION:

If catalyst is found melted, check body ground strap for proper connection. In most cases, previous repairs were made to the vehicle where the ground strap was removed and not properly re-installed. Ensure that proper torque procedures are followed when re-installing the ground strap.

Catalyst Damage Down The Center Of The Monolith (cont.)



Incorrect Wiring Harnesses Received By Dealers

ALL PASSENGER CARS: GP 54.18

CAUSE / EXPLANATION:

When replacing complete main body harness it can be difficult to determine the correct part number. Many times the harness is not determined to be incorrect until it is installed by dealer leading to increased down time.

ACTION:

Using VeDoc you can enter the production number from the parts tag to determine if the harness is correct for the vehicle. Use the below criteria to determine the correct wiring harness:

1. Select "Production number" from drop down list in VeDoc
2. Enter number from harness tag that is located near the bar code, minus the alpha digit(s)
3. Hit "Search" button
4. Associated VIN/FIN for entered production number from harness tag is listed in VeDoc

Incorrect Wiring Harnesses Received By Dealers (cont.)

DAIMLER R16 1-V16 1.1.6 04.02.2016 13:46 VEDOC

Vehicles | Maj. assys (IAG) | Parts identification | Master data | Logs

Vehicle identification no. (FIN) WDC 164886 1A 419725 → Production number

Vehicle identification no. (VIN) → Search 2418868

Identification plate | FD texts | Control units | Plant texts | Theft-relevant data | Orders of theft-relevant parts | Navigation | History

Identification | Major assemblies | Codes | SAA numbers | VPD data | Serial numbers | Certification | Sales data | Equipment

Vehicle identification no. (FIN) WDC 164886 1A 419725 3 Order number 0 8 839 11226

Vehicle identification no. (VIN) Production number 2418868 2

Brand Mercedes-Benz Body number

Category PV (0) Production plant 1380 Tuscaloosa

Vehicle model GL 550 4MATIC Shipment date 22.05.2008

Body type Off-roader Status Delivered

Codes

Paintwork 1 197 U Interior equipment 501 A

Paintwork 2 O Scratch resistant clear varnish C:PROGLOSS

197T	500A	501A	839L	8XXL	213	214	218	220	242	249	263	267	275	282B	289	293
299	301	345	348B	401	404	405	414	427	430	438	441	477	489	498	500	524
529	551	581	582	600	616	619	668	673	690	720	723	724	761	808	810	819
840	845	846	848	872	876	890	900	989	A05	A21	A22	A38	A44	A49	F164	FV
G904	GA	H02	J58	K15	L	M273	M55	R02	R31	U38	U40	V41				

Stamping

Vehicle identification number stamping Engine number stamping

Last updated

Last modification 22.04.2013 00:17 Instance version 6

Last plant release

Technical advice Save Cancel

i Vehicle found: WDB12612012025761
 i Vehicle found: WDB1714451F218850
 i Vehicle found: WDC1648861A419725

Logged in: RMARCOT

Electrical Power Needed For Flashing And Coding Control Units

ALL COMMERCIAL VANS: GP 58.00

EXPLANATION:

XENTRY requests >12.5V for most flashing. XENTRY requests >13.0V for flashing telematics. Flashing newer vehicles may not be possible with a 55A maintainer.

CORRECTION:

A battery maintainer with at least 70A is needed. Midtronics PSC-700S is an approved charger / maintainer. See the MBUSA SSEP online catalog accessed via Star TekInfo, or call our equipment program provider Bosch (formerly SPX) at 1-888-458-4040, to place an order or for additional information.

Brand Logo Projector Inoperative

166 W/ SA CODE 587 (BRAND LOGO PROJECTOR): GP 82.10

CAUSE / EXPLANATION:

With new DCM installed but not coded, the projector functions. After performing an initial startup, projector no longer functions. Utilizing a known good vehicle's DCM does not resolve and results in the donor vehicle's projector also not functioning.

CORRECTION:

Once the power is removed from the DCM, it is necessary to drive the vehicle in order to get the Logo light to function once again. Also consider that light sensor must indicate a low ambient light for projector to function. It may also be necessary to fold the mirror in and out one time to confirm folding mirror motor has reached its end stop.

Rear Seat Entertainment

166 AND 292 AS OF MY2016, X166 AS OF MY2017: GP 82.60

CAUSE / EXPLANATION:

Rear Seat Entertainment is only available as a factory fit option. Rear Seat entertainment kit A166 870 06 96 is not compatible with GLE and GLS equipped with NTG5.

CORRECTION:

Reports from the field indicate that several dealers have attempted to install kit A166 870 0696 into GLE as of 2016 and 2017 GLS. Currently there is no "factory retrofit" for the rear seat entertainment on these vehicles.