

*SPRINTER*

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ANYTHING**



## 2024 Sprinter Fleet and RV Maintenance Brochure

Version 1 - Updated as of 7.31.2024



## DIESEL MAINTENANCE AND ENGINE OILS

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# Diesel Maintenance and Engine Oils

## Maintenance

- AdBlue® (every interval)
- Fuel filters (every interval) – critical for biodiesel use
- Maintenance interval – cut to 1 year/10K miles for biodiesel users\*
- Battery maintenance
- Charge battery every 30 days, or utilize battery maintainer
- Tire maintenance
- Tire pressure should be 70 PSI when storing, and/or park on tire savers
- Check air pressure regularly
- Check for dry rot/cracking
- Use tire covers when vehicle's not in use
- Move vehicle every 30 days to avoid flat spots
- Rotate tires as needed
- After-market rims require mounting/dismounting of tires. Cost-benefit analysis recommended.

\*Use of B20 (biodiesel) prior to model year 23. B20 is not recommended and if the customer must use it due to availability in certain states, additional maintenance (more frequent oil and filter changes as well as fuel filter changes may be beneficial). Fuels with more than 5 percent biomass content are not recommended.

## Engine Oils

- 6-cylinder – 642/4-cylinder – 654: 229.52 oil available in 0W30 or 5W30
- Recommended use of Mercedes-Benz fleece oil filter as opposed to other paper filters due to longer Sprinter 2 year/20K miles service intervals
- Engine fluid level must be checked electronically. No dipstick provided for either engines. Electronic check takes environmental factors into consideration.



# Detailed Maintenance Sheets

Service	A	B	A	B	A	B	A	B
Time	2 yr	4 yr	6 yr	8 yr	10 yr	12 yr	14 yr	16 yr
Miles	20K	40K	60K	80K	100K	120K	140K	160K
<b>Driving</b>								
Service Brake & Parking Brake Function Test	X	X	X	X	X	X	X	X
<b>Vehicle Exterior</b>								
Check Function of Exterior Lighting		X		X		X		X
Check Headlamp Range Adjustment		X		X		X		X
Check & Correct Tire Pressure Including Spare	X	X	X	X	X	X	X	X
Lubricate Hinges of Rear Doors (with code W54)		X		X		X		X
<b>Vehicle Interior</b>								
Check front & rear windshield wipers, windshield & headlight washer systems		X		X		X		
Check Seat Belts and Buckles	X	X	X	X	X	X		
Check First Aid Kit		X		X		X		
Check Water Drain Bores in Floor Area of Sliding Door		X		X		X		
Replace Dust/Charcoal filter for air-conditioning/Heating system		X		X		X		
Replace Dust Filter for Rear Roof-Mounted Air Conditioning System		X		X		X		
<b>Xentry Diagnosis</b>								
Perform Efficiency Test of Diesel Particulate Filter (DPF) with Xentry Diagnosis	Every service after 100k miles							
Read Out Operation Counter of Electric Parking Brake (with code B25)	Every 160k miles or 5 years							

**DIESEL MAINTENANCE  
AND ENGINE OILS**

[Learn more](#)

## Detailed Maintenance Sheets (cont.)

Service	A	B	A	B	A	B	A	B
Time	2 yr	4 yr	6 yr	8 yr	10 yr	12 yr	14 yr	16 yr
Miles	20K	40K	60K	80K	100K	120K	140K	160K
<b>Engine Compartment</b>								
Change Engine Oil and Oil Filter	X	X	X	X	X	X	X	X
Check Brake System Fluid Level	X	X	X	X	X	X	X	X
Fill Windshield Washer System Fluid Level	X	X	X	X	X	X	X	X
Fill AdBlue® Tank	X	X	X	X	X	X	X	X
Replace Fuel Filter	X	X	X	X	X	X	X	X
Check Power Steering Fluid Level (with 4x4 code ZG3)		X		X		X		X
Check All Poly-V Belts for Wear and Damage		X		X		X		X
Check All Visible Components in Engine Compartment for Damage and Leaks		X		X		X		X
Replace/Flush Brake Fluid	Every 2 Years							
Replace Engine Air Filter	Every 60K Miles or 4 Years							
Replace Poly-V Belt	Every 80K Miles or 4 Years							
Replace Coolant	Every 220K Miles or 15 Years (every 3 years after)							

## Detailed Maintenance Sheets (cont.)

Service	A	B	A	B	A	B	A	B
Time	2 yr	4 yr	6 yr	8 yr	10 yr	12 yr	14 yr	16 yr
Miles	20K	40K	60K	80K	100K	120K	140K	160K
<b>Vehicle Undercarriage</b>								
Check all Visible Components of Vehicle Underside for Damage and Leaks		X		X		X		X
Check Tie Rod and Drag Link Ball Joints for Play, Check Boots		X		X		X		X
Check Front Axle and Front Axle Joint		X		X		X		X
Check Propeller Shaft and Flex Disks		X		X		X		X
Check Axle Shafts and Axle Boots (with 4MATIC code A4M or 4x4 code ZG3)		X		X		X		X
Check Suspension Struts, Shocks Absorbers, Springs and Auxiliary Rubber Springs		X		X		X		X
Check Tires for Wear, Damage, and Cracks	X	X	X	X	X	X	X	X
Assess Condition of Brake Pads and Disks		X		X		X		X
Automatic Transmission: Change Oil and Oil Filter		X	Every 80K Miles After First B Service					
Transfer Case: Change Oil (with 4x4 code ZG3)		X	Every 80K Miles After First B Service					
Front Axle: Change Oil (with 4x4 code ZG3)		X	Every 80K Miles After First B Service					
Rear Axle: Change Gear Oil	Every 180K Miles or 10 Years							

7-speed engine (NAG2) - automatic transmission fluid: (Blue color fluid)

9-speed engine (NAG3) - automatic transmission fluid: (Golden color fluid)

Both transmission and engine fluid require special tools to remove fluid. Evacuation equipment (bi-directional vacuum/blower) used.

Recommended 4 brake fluid: DOT 4+

# Diesel Fuels Overview



## Recommended Diesel Fuel (B5)

- B5, #2, Ultra-Low Sulfur is ideal for the Sprinter
- Cetane: An indicator of the combustion speed of diesel fuel and compression needed for ignition. Comparable to “octane” for gasoline. 45 or above is the ideal cetane rating for the Sprinter.
- Recommended to use name-brand fuels to ensure quality



## Biodiesel (B20)

- Description: Up to 20% biomass (B20) added to regular diesel fuel
- Not recommended for MY22 or older, but it is allowed in MY23 or newer engines



## Renewable Diesel (R95)

- Consists of 95% biomass material, although the refinement process differs from B20
- Currently not recommended by Mercedes-Benz, although tests are ongoing
- More common in California and the West Coast



## Additives

- No additives are recommended by Mercedes-Benz
- In winter months, it is only recommended to use winterized diesel fuels, and no anti-gel additives
- Injector lubricant and cetane additives could cause damage to emissions components in the exhaust system

- **Biodiesel Best Practices:** B20 fuel has a quicker expiration time period, and is not ideal for use in cold weather. Biomass causes oil dilution. If using B20, oil change and fuel filter replacement intervals should be reduced by half. Certain states mandate the use of B20 in warmer weather. Aforementioned special precautions must be followed if forced to use this fuel.
- **Fuel Viscosity:** #1 vs. #2. Mercedes-Benz only recommends #2 for Sprinter - #1 will cause fuel system damage.
- **Avoid off highway or agricultural fuels:** Could be subject to fines as there is no road tax applied to these fuels
- **Ultra-Low Sulfur:** Recommended to only use ultra-low sulfur diesel fuel with Sprinters. Do not use 500 PPM sulfur content or above.
- **Misfueling:** It is a common mistake to put gasoline in a diesel engine. Do not start the engine as it will result in major engine damage. Have vehicle towed to nearest Mercedes-Benz dealer. If your “water in fuel light” comes on, also follow the aforementioned instructions.

# Biodiesel Deep Dive

Whatever your dreams may be, a Mercedes-Benz engine keeps you moving toward success.

## Pros

- Offers good lubricity, which helps to maintain injection pump and injectors
- Offers fairly high cetane ratings

## Cons

- B20 fuel has a quicker expiration time period
  - Do not leave B20 fuel in your tank when storing your RV. Max shelf life = 4 weeks.
- May reduce fuel economy
- Should not be used in cold weather
- Biomass causes oil dilution
- Could damage engine and fuel system due to increased contaminants
  - Reduce idling times as much as possible due to oil dilution
  - Reduce maintenance intervals by half for oil and fuel filter changes

# Vehicle Storage Preparation Summary

## BATTERY

For vehicles that will be nonoperational for long periods of time, it is recommended to disconnect the battery

When disconnecting the battery, please follow the steps outlined in the Driving and Parking section in the Sprinter Owner's Manual

## TIRES

If van will be parked >two months, increase tire pressure to 68 PSI

If van is parked outside, cover tires to prevent UV damage

## FUEL

Fill fuel tank – follow the Sprinter Owner's Manual for type of fuel

Ensure vehicle is not stored with B20 or higher diesel fuels (example: biodiesel)

## PAINT & BODY

Remove keys and open air vents

Inspect paint protection preservation material

### References

- AP00.70-S-1000Z – Safety precautions for new vehicles that are being put into storage
- eXpertUpfitter Body and Equipment Guidelines – 3.11 Maintenance and Repairs
- Sprinter Owner's Manual – Driving and Parking Section

# In-Storage Maintenance Summary

## BATTERY

Charge battery every 3 months

## TIRES

Check tire pressure every 3 months and move vehicle monthly to avoid flat spots

## EXTERIOR

Inspect paint and paint protection preservation material's expiration date

## BRAKES

Recommendation to drive vehicle every month to clean brake rotor surface rust

## GENERAL

Periodically inspect for rodent damage

### References

- AR54.10-D-0006-TS – Handling battery when putting vehicle into storage
- AP98.00-S-0641-S – Weekly check of paint soiling

# Taking Vehicle Out of Storage Summary

## BATTERY

Check battery condition and recharge if necessary

## ENGINE

Check engine coolant level and condition

If van was parked >12 months, change the engine oil

If van was parked >12 months, replace AdBlue® (Diesel Exhaust Fluid – DEF)

## BRAKES

If van was parked >6 months, flush brake fluid

If van was parked >6 months, check the brakes for corrosion

Road-test vehicle  
Check brake operation

## PAINT & BODY

Lubricate rear door hinges  
Wash vehicle

### References

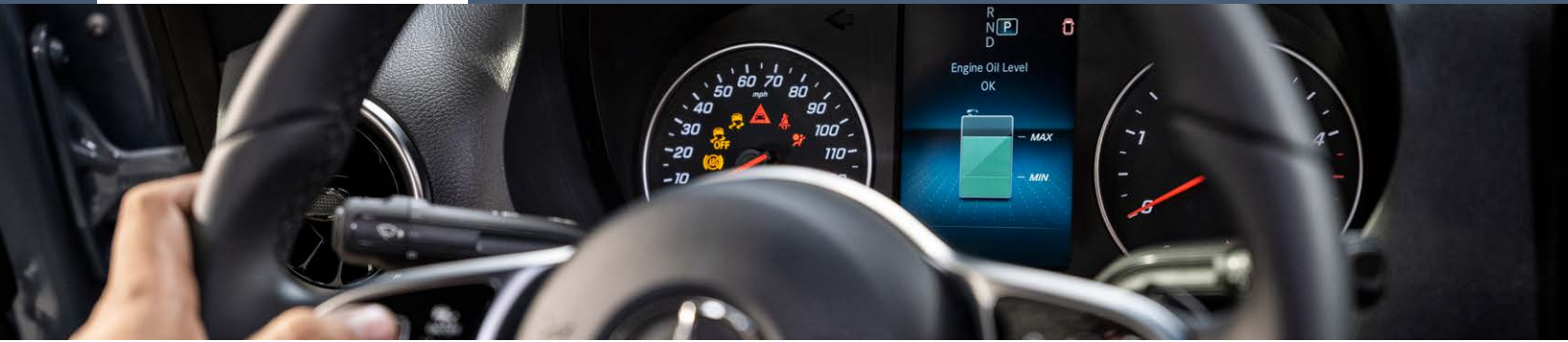
- AP00.70-Z-1001Z – Recommissioning immobilized vehicle
- AP00.20-D-1100A – Pre-delivery inspection

This document is intended to give a high-level summary of preparing a van going into 1) storage; 2) maintenance while in storage; and 3) requirements when taking a Sprinter chassis out of storage.

Refer to your RV Manufacturer owner resource manual for overall coach/RV storage procedures. This presentation is not intended to be a step-by-step process document. It is the customer's responsibility to review reference documents for storage directions.

It is the customer's responsibility to review all referenced master documents regularly, as documents and processes can be updated at any time by Mercedes-Benz USA.

## DIESEL PARTICULATE FILTER (DPF)



# Diesel Particulate Filter (DPF) Overview

### WHAT?

DPF collects soot in filter from diesel engine combustion until regeneration is performed. Beginning with Model Year 19, all diesel engine Sprinters allow you to check the DPF fill level through your instrument cluster/dashboard and controls on the steering wheel.

### WHY?

This is a federally mandated component to avoid additional harmful environmental emissions.

### REGENERATION PROCESS:

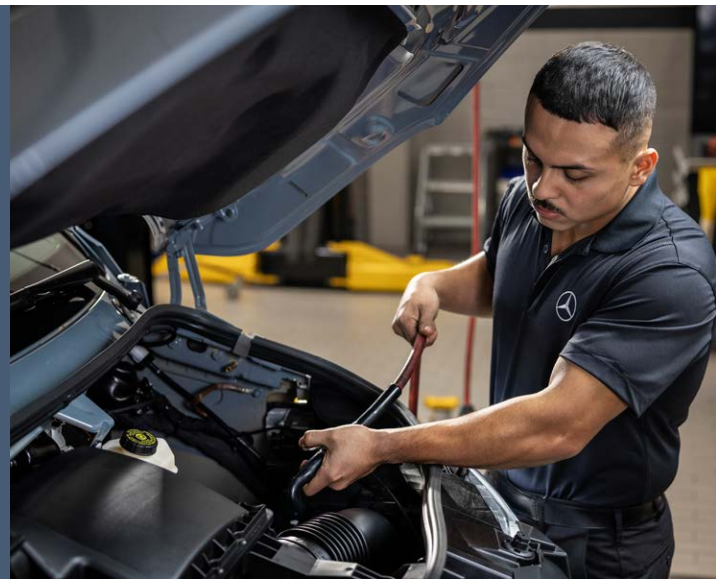
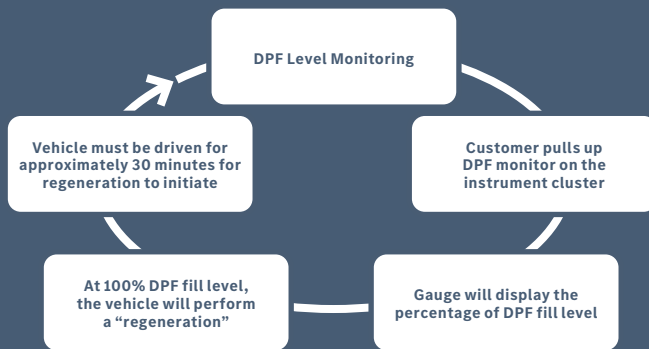
Incinerates soot and turns it into ash by super heating the exhaust system. This keeps the DPF functional.

### DPF REPLACEMENT:

Upon a significant number of successful regenerations, the filter may need to be replaced.\*

\*DPF life can be shortened by using poor quality or incorrect fuels, additives, and engine oils. Dealer can determine when replacement is necessary.

## Regeneration Process



## Why is it important for regenerations to take place?

### CAUSE

- If the DPF fill level exceeds a predetermined level, there is a point that the driving regeneration will not occur
- The check engine light will illuminate, and the driver may notice severely reduced power levels



### EFFECT

- If this occurs, the van will need to be brought to a Sprinter dealership for inspection
- At some point, the Sprinter dealer may need to replace expensive exhaust components if the soot that resides in the DPF cannot be eliminated



# How to display DPF fill gauge on the instrument cluster



**1. Depress Home button.**

**2. Scroll to far left to highlight Service menu and depress touch pad. Scroll with light touch on pad and swiping motion.**

**3. Service menu appears.**

**4. Scroll to bottom and depress touch pad with Particulate Filter highlighted.**

**5. DPF fill level appears.**

## Why is it important to keep idling time to a minimum?

- Regenerations will only take place while the Sprinter is driven. This is for safety reasons due to high-exhaust temperatures during the regeneration.
- Engine temperatures remain cool at idle. This causes contaminants from engine combustion and dilutes engine oil. This is especially prevalent if the customer is forced to use bio-blend fuels.
- Unnecessary idling contributes to carbon emissions and wastes precious resources
- Some states have laws in place that restrict the amount of time a diesel engine can be run at idle
- Allowing the engine to idle without monitoring the DPF level to ensure regenerations are performed can lead to expensive emission control component failures that may not be covered by the Mercedes-Benz warranty

# AdBlue® Overview/Diesel Exhaust Fluid (DEF)



**WHY DEF?** This requirement is federally mandated for diesel vehicles in order to reduce NOx emissions. Starting in 2010, changes were made to use a combined “after treatment system.”

**HOW IT WORKS:** NOx sensors detect levels so that a vehicle injects the correct amount of DEF into the exhaust system in order to maintain federally regulated emission levels.

**SHELF LIFE:** 2 years, but could be shorter if stored in direct sunlight or high temperatures.









## When to refill AdBlue® (DEF) for Sprinter?

**LEVEL GAUGE:** The vehicle is equipped with a level gauge so that the customer can monitor AdBlue® levels, or the customer can wait until the “Check DEF” message appears in the vehicle’s instrument cluster.

**PREREQUISITES FOR FILLING:** Whenever filling AdBlue®, you must add at least 1.5 gal in order for the level gauge to update.

**WARNING STRATEGY:** While the system doesn’t affect the engine performance, the U.S. government mandates that OEMs must severely derate (5 mph limit) the vehicle if AdBlue® is depleted. Vehicle operator will receive a warning with ample amount of time to refill AdBlue®.

1. “Check DEF” notification appears on instrument cluster, then ~1 gal remaining notification follows.
2. If ignored, “16 starts remaining” notification appears on instrument cluster.
3. If ignored, when “0 starts remaining” appears, engine will be derated to 5 mph until AdBlue® is refilled (at least 1.5 gal).

Display messages	Possible causes/consequences and solutions
 <a href="#">Refill Additive See Operator's Manual</a>	<p>*In addition, the yellow  DEF indicator lamp lights up on the instrument cluster and a warning tone sounds.</p> <p>The DEF supply has fallen below the first warning threshold.</p> <p>▶ Add at least 2.5 gal (9.51) of DEF. The  DEF indicator lamp only disappears when the vehicle is stationary, at the latest after 20 seconds, as soon as you switch on the ignition or start the engine after topping up.</p>
 <a href="#">Refill Additive Starts Until Emerg. Op.: XXX See Operator's Manual</a>	<p>*In addition, the yellow DEF indicator lamp lights up and a warning tone sounds.</p> <p>The DEF supply has fallen below the reserve mark.</p> <p>After the message appears for the first time, the remaining DEF supply will last for approximately 1,200 miles (1,900 km). The engine can then only be started another 16 times. The number of remaining engine starts XX (16 to 1) is shown in the message every time the engine is started.</p> <p>▶ Add at least 2.5 gal (9.51) of DEF. The  DEF indicator lamp only disappears when the vehicle is stationary, at the latest after 20 seconds, as soon as you switch on the ignition or start the engine after topping up.</p>
 <a href="#">Refill Additive Emergency Op.: XXX mph See Operator's Manual</a>	<p>*In addition, the yellow DEF indicator lamp  lights up on the instrument cluster and a warning tone sounds.</p> <p>If the <a href="#">Refill Additive Emergency Op.: XXX mph See Operator's Manual</a> display message is shown, you can only drive the vehicle at a maximum speed of 5 mph (8 km/h).</p> <p>Add at least 2.5 gal (9.51) of DEF.</p> <p>▶ The DEF indicator lamp  only disappears when the vehicle is stationary, at the latest after 20 seconds, as soon as you switch on the ignition or start the engine after refilling.</p>

## AdBlue® Facts

### BASIC FACTS ABOUT AdBLUE® (DEF) CH<sub>2</sub>N<sub>2</sub>O.

- It is a mixture of 32.5% urea and 67.5% deionized water
- It freezes at 12 degrees Fahrenheit
- AdBlue® has a shelf life and it is affected by temperature and sunlight
- AdBlue® should not be stored in direct sunlight
- Leaving the AdBlue® tank empty can cause issues with the level sensors of the AdBlue® becoming crystalized
- Optimal storage temp is 32 to 65 degrees Fahrenheit.
  - >50 degrees F – roughly 36 months
  - >77 degrees F – roughly 18 months
  - >86 degrees F – roughly 12 months
  - >95 degrees F – roughly 6 months

## WARRANTY

[Learn more](#)

# Mercedes-Benz Warranty Overview

DESCRIPTION	Years:	1	2	3	3	3	5	5	7
	Miles (thousands):	12	24	36	50	UNL	50	100	70
<b>New Vehicle Limited Warranty Coverage</b>									
<b>Special Extended Warranty Coverage</b>									
Anti-Corrosion Perforation Limited Warranty:									
All Panels									
Outer Panels									
Federal Emission Warranty - Diesel									
Federal Emission Warranty - Gasoline									
California Emission Warranty (California, Colorado, Connecticut, Delaware, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Pennsylvania, Rhode Island, Vermont and Washington)									
Short Term (Diesel)									
Short Term (Gasoline)									
Long Term									
Diesel and Gas Powertrain Limited Warranty									

## WHAT'S COVERED

### New Vehicle Limited Warranty:

#### A. Who Is Covered?

The subsequent pages of this Service and Warranty Information brochure describe some service requirements and the warranties you receive as an owner. Your vehicle is covered under the terms of these "Warranties" and your nearest authorized Mercedes-Benz Dealership will exchange or repair any defective parts in accordance with the terms of such warranties within stated limits.

Please keep this brochure together with the Operator's Manual, Maintenance Booklet and other documents concerning your vehicle so that future owners will have access to this literature if you should sell the vehicle.

#### B. What's Covered

The New Vehicle Limited Warranty warrants to the original and each subsequent owner of a new Sprinter vehicle that any authorized Mercedes-Benz Dealership will make any repairs or replacements necessary to correct defects in material or workmanship arising during the warranty period.

**ANY AUTHORIZED MERCEDES-BENZ DEALERSHIP:** Any authorized Mercedes-Benz Dealership of the owner's choice will perform warranty repairs or replacements. The vehicle should be delivered to an authorized Mercedes-Benz Dealership during normal service hours. A reasonable time should be allowed after taking the vehicle to an authorized Mercedes-Benz Dealership for performance of the repair.

#### C. Items Covered by Other Warranties

The following are covered by separate warranties offered by their makers. They are **not covered** by the Basic Limited Warranty:

- tires; or
- items added or changed after your Sprinter vehicle left the manufacturing plant, such as accessories or protection products, or items changed because of customization or van conversion (except Genuine Mercedes-Benz accessories designed for Sprinter, and installed by an authorized Mercedes-Benz Dealership). Be sure you get a copy of any warranty that applies to these items from your authorized Mercedes-Benz Dealership, or from the maker of the product. You can find the tire warranty statements in your Owner's Literature Package.

#### D. Towing Costs Are Covered Under Certain Circumstances

The New Vehicle Limited Warranty, the Diesel Engine Limited Warranty, and the Spare Parts Warranty cover the cost of towing your vehicle to the nearest authorized Mercedes-Benz Dealership if your vehicle cannot be driven because a covered part has failed.

## WARRANTY

[Learn more](#)

# Mercedes-Benz Warranty Overview (cont.)

### Subsections on What's Covered:

- Diesel Engine Limited Warranty
- Powertrain Warranty
- Corrosion Warranty

### Items Which Are Not Covered:

- Tire and rim damage
- Wheel alignment
- Brake pads and discs
- Wiper blades and inserts
- Damage due to accidents, misuse, or negligence

- Damage due to lack of maintenance
- Damage caused by use of improper filters, engine oils, fluids, cleaners, polishes, or waxes
- Damage due to alterations
- Damage caused by unauthorized repair parts and misfueling
- Damage caused by improper body repairs
- Altered odometer
- Damage caused by outside influences and the environment
- Damage to glass
- Extra expenses – lodging bills or rental fees

### E. When It Begins

The New Vehicle Limited Warranty begins on either of the following dates, whichever is earlier:

- the date you take initial delivery of the vehicle; or
- the date when the vehicle was first put into service as an authorized Mercedes-Benz Dealership “demo” or as a company vehicle of the vehicle distributor;

but no later than 24 months from the vehicle production date. Warranty coverage will be adjusted to reflect the actual warranty period start date. As noted in the illustration on previous page, our limited power train warranty is 5 year/100,000 miles, but it begins at the same time as the New Vehicle Limited Warranty.

### F. When It Ends

The New Vehicle Limited Warranty is for 36 months or 36,000 miles, whichever occurs first. Not all components or adjustments carry a 36 month or 36,000 mile warranty. Warranty coverage for specific components or adjustments is based on the vehicle's time in service or mileage and should always be verified with your authorized Mercedes-Benz Dealership prior to any repairs. Examples include, but are not limited to, the following:

- Wheel alignment and balancing
- Brake pads
- Brake discs
- Glass
- Wiper blades and inserts

### G. Registration and Operation Requirements

The New Vehicle Limited Warranty covers your vehicle only if:

- it was built for sale in the U.S.;
- it's registered in the U.S.;
- it's driven mainly in the U.S. or Canada; and
- it's operated and maintained in the manner described in your Operator's Manual and Maintenance Booklet.

### H. If Your Vehicle Leaves the United States (We Include U.S. Possessions and Territories as Part of the United States for Warranty Purposes):

EXCEPT WHERE SPECIFICALLY REQUIRED BY LAW, THERE IS NO WARRANTY COVERAGE ON THIS VEHICLE IF IT IS SOLD IN OR REGISTERED IN COUNTRIES OTHER THAN THE UNITED STATES.

This policy does not apply to vehicles that have received authorization for export from the vehicle distributor. Authorized Mercedes-Benz Dealerships may not give authorization for export. You should consult an authorized Mercedes-Benz Dealership to determine this vehicle's warranty coverage if you have any questions. This policy does not apply to vehicles registered to U.S. government officials or military personnel on assignment outside of the United States.

## RESOURCES

[Learn more](#)

# Resources

[Home Page | Mercedes-Benz Vans \(mbvans.com\)](#)

- MB Vans Website Content:
  - [Warranty Booklet \(MY10-Current\)](#)
  - [Sprinter Owner's Manual \(MY10-Current\)](#)
  - [Maintenance](#)
  - [Collision & Repair](#)
  - [Genuine Parts](#)
  - [Service Financing \(FlexPay\)](#)
  - [Vehicle Accessories](#)
  - [Recall VIN # Search](#)
  - [MB Vans Dealer Locator](#)
  - [Connectivity \(Mercedes me connect\)](#)



### SUPPORT PHONE NUMBERS/ EMAIL ADDRESSES

- Customer Assistance Center (CAC):  
**1-877-762-8267**
- CAC Email Contact:  
<https://email-us.mbusa.com/home>
- Roadside Assistance: **1-800-367-6372**

### UPFITTER RESOURCES

- Web Address:  
<https://www.mbvans.com/en/upfitter>
- Email Address: [UpfitterInfo@mbusa.com](mailto:UpfitterInfo@mbusa.com)

### UPFITTER PORTAL CONTENT:

- Body & Equipment Guidelines (BEG)
- Technical Resources & Bulletins
- “Ask a Question” Feature
- Upfitter Locator