



# Metris Refrigeration Application Technical Bulletin UM447/01

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Mercedes-Benz Vans, LLC

Mercedes-Benz



# Notice

Mercedes-Benz Vans, LLC does not warrant the accuracy of the information contained in this bulletin and reserves the right to modify or append this bulletin without prior notification. Mercedes-Benz disclaims all liability associated with the provision of this bulletin.

This bulletin is not intended to serve as a work instruction, but merely to provide some helpful information for upfitters to take into consideration before retrofitting or modifying a Mercedes-Benz or Freightliner Sprinter.

Prior to making any modification to or installing any equipment in or on a Mercedes-Benz or Freightliner Sprinter, you should review and insure compliance with all applicable laws and regulations, consult with Vans Engineering Support for Upfitter Management for additional and updated information, and read the Body & Equipment Guidelines for Sprinter Model Series 906.

## Upfitter Management Vans Contacts:

For information or upfitter inquiries  
please submit a request via our website:

[www.upfitterportal.com](http://www.upfitterportal.com)

# Metris Refrigeration Application

## Technical Bulletin

The purpose of this bulletin is to inform all alterers & special equipment manufacturers planning to convert Metris model year 2016 & newer vehicles into refrigeration vehicles. Due to the design of the Metris' engine, it is not possible to retrofit a refrigeration compressor or a secondary alternator. Only electric powered refrigeration systems can be used.

### Essential optional equipment

Prior to installing an electric powered refrigeration system, please ensure that Mercedes-Benz Metris in question features the following essential optional equipment:

- **EK1** connector (upfitter connector) or **ED5** PSM parametric special module (only one option possible)
- **ED4** aux battery 95Ah – AGM –electrical power supply
- **ML4** 190A alternator

**Important:** Please note that it is imperative that the aforementioned essential options are specified with the vehicle during the ordering process, as none of options can be installed after the fact.

**We recommend option package X52 – refrigeration prep package which includes the required options already.**

In addition to the aforementioned information it is required to ensure a positive charging balance of the electrical system. The following restrictions are applicable to Mercedes-Benz Metris with a refrigeration conversion:

- Never tow a trailer with a Metris with a refrigeration conversion – **therefore do not order option Q24 – trailer hitch**
- No ECO start / stop operation – **therefore do not order option package X50 – ECO start / stop package**
- No PTC operation – **therefore do not order option package C08 – cold weather package**

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### **Electrical System Charging Balance**

To avoid a discharge of the Metris' starter battery, please ensure that the charging balance is always positive. The current draw of the electrical refrigeration system cannot exceed the maximum current needed for safe operation of the refrigerated Metris.

Below is a non-exhaustive list of some operational requirements. Mercedes-Benz Vans does not warrant the accuracy of this information.

- Please ensure that the operation of the refrigeration unit only occurs while the Metris engine is running. It is therefore essential that the running signal for refrigeration system is connected either to terminal 61 of the EK1 connector. Alternative a defined dedicated terminal in the PSM for engine running signal can be programmed.
- Always connect the refrigeration unit to the aux battery never to the starter battery.
- Please note that due to the Metris electrical performance reasons, only transport of fresh goods with temperatures above 32° F possible.
- To avoid damage to the shore line & connector, always ensure that the shore line connector is located within the visual surroundings of the driver before entering the Metris or use an ejection capable shore line connector.

Please consult with Upfitter Management Vans for additional and updated information, and read the Body & Equipment Guidelines for Metris Model Series 447.