

Window wiper configuration

Define the position of diodes for window wipers.

For connecting wiper/wipers an EmpirBus DC Module that is equipped with 'minus' functionality on the outputs must be used. Check the data sheet to see what channels on the module used that have 'minus' capabilities.

The minus output controls the wiper to get a distinct and correct parking position.

- The wiper should be connected to one of the 'minus' channels functionality on the output.
- If it is a two-speed wiper only one winding needs to be connected to one of the 'minus' channels.
- Diode is **ONLY** needed if it is a 2-speed wiper and **ONLY** at one of the windings (low speed **OR** high speed).
- The minus supply to the wiper should be connected directly to minus (not to a channel)!

Examples how to connect diodes can be found on page 4 in the manual <http://www.empirbus.com/download/676/productempirbusnxtmodule dcm11pdf.pdf>

The reason for placing the diode is that there will be high voltage induced to the open winding (not currently unused). This will cause the overvoltage protection to be activated and increase the current. It will cause reduced speed on the wiper and after a while also trip the fuse. Which winding that should be fitted with diode is dependent on the wiper make/model. As it can be either the low or high speed winding that needs the diode, it needs to be verified in the installation to achieve correct functionality.

Test procedure:

1. Connect both low and high speed winding – **WITHOUT** any diode
2. Switch on low speed, **disconnect** the cable for high speed winding and look for speed change on low speed
 - a) If there is no speed change go on to step 3
 - b) If the speed changes, **add diode in series with the high speed winding**. Proceed to **step 4**.
3. Switch on high speed, disconnect the cable for low speed winding and see if the speed change for high speed
 - a) If the speed doesn't change there isn't any need for diode
 - b) If the speed changes, **add the diode in series with the low speed winding**
4. After having configured the placing of diode, the configuration file used for the system must be updated. Use EmpirBus Studio to make the necessary updates and reload the configuration file.

NOTE: it is not possible to add diodes on both speed because it will then remove the function for distinct and correct parking position.