

The **onboard network control unit (N82/1)** has the following tasks

- Controls the **battery separation relay (K57)**
- Checking the running condition of the onboard network area
- **Loads the (G1/4)** starter battery
- Extracts the function demands also during the operational phase
- Notes emergency operation in the failure coding
- Turns off during voltage surge
- Turns off during short out

The testing of the operating condition from the onboard computer is the premise for the engagement of the **battery separation relay (K57)** and is summarized in the following table.

Charging the starter battery (G1/4)

The **starter battery (G1/4)** is loaded only during **normal operation** of the

Onboard computer.

The charging process is carried out dependant upon the starter battery temperature and the starter battery charge. This is achieved over the **charging curve found in the onboard computer control unit (N82/1)**.

After reaching the charge limit a maintenance charge follows. The starter battery temperature is not measured directly but in connection with the outside temperature and the engine radiator fluid temperature. This is computed in the **onboard computer control unit (N82/1)**.

Furthermore, **in the onboard computer control unit (N82/1)** different charging voltage temperature curve values are stored. The outside temperature is established as a CAN message **by the driver's SAM control unit (N10/10)** over the CAN passenger compartment and over the engine temperature from the **ME control unit (N3/10)** through the CAN engine compartment.

Onboard computer operating condition	Description
Normal start operation	<ul style="list-style-type: none"> ● Transmittor key (A8/1) is placed into the EZS control unit (N73) ● NO KL undervoltage. 30 ● Starter battery (G1/4) is separated from onboard computer battery (G1) ● Onboard computer voltage supply from onboard computer battery (G1)
Normal mode	<ul style="list-style-type: none"> ● Term. 61 ON ● No KL undervoltage. 30 ● Starter battery (G1/4) is separated from onboard computer battery (G1) ● Starter battery (G1/4) charged through onboard computer control unit (N82/1)
Emergency start operation	<ul style="list-style-type: none"> ● Transmittor key (A8/1) is placed into the EZS control unit (N73) ● KL undervoltage.30 recognized (onboard computer discharged) ● Onboard computer control unit (N82/1) transmits CAN message "emergency operation" ● Non-relevant starting consumers turned off (for example, rear defroster) ● Starter battery (G1/4) is switched parallel to the battery (G1) through the battery separation relay (K57) ● Starter battery (G1/4) assumes the onboard computer supply ● Warning indicator in instrument cluster (A1)
Emergency operation	<ul style="list-style-type: none"> ● Term. 61 ON ● Starter battery (G1/4) stays switched throughout the undervoltage parallel to the onboard computer battery (G1), until there is no undervoltage in KL. 30.0. ● Error message entry in onboard computer (N82/1) control unit ● After the KL.61 OFF, the starter battery (G1/4) connection to the onboard computer (G1) stays for t= 5 minutes.
Ending phase	<ul style="list-style-type: none"> ● Transmittor key (A8/1) is not placed in the EZS control unit (N73) ● Term. 61 OFF ● Starter battery (G1/4) is disconnected from onboard computer battery (G1)