

How can Maretron's N2K system be designed to survive lightning strikes?



Lightning is unpredictable, and it is very difficult to prevent its harmful effects to marine electronics. However, you can take steps to mitigate the damaging effects of lightning to your N2K Network by considering the use of the Maretron Network Bus Extender(NBE100).

The NBE100 electrically isolates two NMEA 2000 network segments. With the use of opto-isolation inside an NBE100, two N2K systems are electrically separated while sensor data is shared.

For example, a mast sensor network is highly susceptible to damaging lightning strikes. Devices such as GPS antennas, radar systems, VHF communications, and electronic weather stations can be damaged by lightning strikes. However, you can use the NBE100 to electrically isolate most NMEA 2000 sensors on your network from those mounted on antenna mast to help prevent lightning energy from reaching the main N2K network.

Lightning is unpredictable, and when it occurs, electrical surges cannot always be filtered out completely, so sensors may fail as a result of a lightning strike. Customers are always urged to have backup navigation antenna in case of a direct mast strike by lightning. After a lightning strike, use an N2KMeter to examine the electrical health of your N2K system.

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