National Marine Electronics Association
International Marine Electronics Alliance

Technical Bulletin

Amendment to NMEA Network Message Database Version 2.100
February 2015

# AT 20190623HB

Heartbeat Description Amendment

NMEA Amendment
An amendment is a technical specification that is publicly available and applies to the current version as specified. The content of the amendment will be incorporated into the next released version of the NMEA Network Message Database.

This document adds a revision history to the Heartbeat description (PGN126993) that reflects updates and changes to data fields. These changes were approved at the NMEA 2018 Conference in the NMEA 2000 Plenary meeting.

This identifies changes to the resolution of Field 1 relative to specific versions of the NMEA Network Message Database.

The new revision is highlighted in yellow below and will be added to the next version of the NMEA Network Message Database.

Heartbeat PGN Description (PGN 126993)  NMEA Message Network Database Version 2.100

This PGN shall be transmitted by all NMEA devices.
Reception of this PGN confirms that a device is still present on the network.

Reception of this PGN may also be used to maintain an address to NAME association table within the receiving device.

The transmission interval may be used by the receiving unit to determine the time-out value for the connection supervision.

The value contained in Field 1 of this PGN reflects the PGN’s current Transmission Interval. Changes to this PGN’s Transmission Interval shall be reflected in Field 1.

The transmission interval can only be changed by using the Request Group Function PGN 126208 with no pairs of request parameters provided. Field 3 of the Request Group Function PGN 126208 may contain values between 1,000ms and 60,000ms.

This PGN cannot be requested by the ISO Request PGN 059904 or Request Group Function PGN 126208. In Request Group Function PGN 126208, setting Field 3 to a value of 0xFFFF FFFF and Field 4 to a value of 0xFFFF: “Transmit now without changing timing variables.” is prohibited.

The Command Group Function PGN 126208 shall not be used with this PGN.

Fields 3 and 4 of this PGN provide information which can be used to distinguish short duration disturbances from permanent failures. See ISO 11898 -1 Sections 6.12, 6.13, 6.14, 13.1.1, 13.1.4, 13.1.4.3 and Figure 16 (node status transition diagram) for additional context.

Revisions:
20190624 - Devices that report NMEA Network Message Database Version 2.100 (and newer) in their Product Information PGN (126996) should be using a 1-millisecond resolution, per Data Dictionary #383 and Data Format #116, for Field 1 “Update Rate”.

Devices that report NMEA Network Message Database Versions prior to 2.100 in their Product Information PGN (126996) should be using a 10-millisecond resolution, per Data Dictionary #036 and Data Format #66, for Field 1 “Update Rate”.