



**National Marine Electronics Association  
International Marine Electronics Alliance  
Technical Bulletin  
Technical Errata TE# 2000 20160208  
Address to NAME Association**

**NMEA 2000 Edition 3.10 February 2015  
NMEA Main Document Version 2.000 December 2014**

**Introduction:**

This Technical Errata (TE) details the requirements for utilizing the NMEA NAME with source address to validate received data, and rules for requesting the NMEA NAME (address claim PGN).

This corrects a requirement that was inadvertently omitted with this new Version of NMEA 2000, Edition 3.10 of the Main Document Version 2.000. The NMEA Network Message Database Version 2.100, February 2015, PGN 060928, references Section 8.3.2 in the PGN definition body. This restores that missing section, 8.3.2, in the NMEA Main Document Version 2.000, December 2014. This requirement was sent to the NMEA 2000 Standards Committee for comment and voting in April of 2014. There were no negative comments and no objections.

The previously omitted text is highlighted in **red** below.

This text will be published with a new Version of the NMEA 2000 Edition and a new Version of the NMEA Main Document. In a New Version on the Main Document, this text will be added to a new Section 8.3.2.

This requirement shall take effect immediately and is retroactive to the publication date of the NMEA 2000 Main document Version 2.000 December 2014.

**8.3.2 Address to NAME Association**

To ensure consistent and reliable data, parameter group Source Addresses must be validated against the source device's NAME to determine the scope and purpose of the transmitted data. If the Source Addresses are not used and only the parameter group's number is used to validate data, the data may have originated from different devices and may have different meanings.

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ISO Address Claim parameter group (NMEA 2000 PGN 060928) provides the information needed to associate a Source Address with the device's NAME. However, promiscuous or excessive requests for ISO Address Claim results in excessive traffic, wasted bandwidth and can adversely affect network operations. **This practice is prohibited in NMEA 2000.** Manufacturers shall, instead, store NAME to source address values for devices.

In practice, a table may be used to store associations between specific functions and specific addresses. Once a global request for ISO Address Claim parameter group (NMEA 2000 PGN 060928) is detected, a NMEA 2000 certified device starts to build its own table during the address claim process. The table provides the means to associate a parameter group with a specific NMEA 2000 certified device even though the device's address may change at any time.

This table should also provide the necessary information to differentiate between the same parameter group being transmitted from different NMEA 2000 certified devices. Once the network is at steady state, the occurrence of any new devices or devices changing addresses on the network can be detected by monitoring ISO Address Claim parameter group (NMEA 2000 PGN 060928) transmissions.

8.3.2.1 A global request for ISO Address Claim parameter group (NMEA 2000 PGN 060928) shall only be made by a NMEA 2000 certified device when both of the following are true:

- the NMEA 2000 certified device first successfully claims an address on the bus,  
and
- no global request for ISO Address Claim parameter group (NMEA 2000 PGN 060928) has been transmitted by another NMEA 2000 certified device in the time period between when the NMEA 2000 certified device transmitted its first address claim and when the NMEA 2000 certified device successfully claimed its address.

8.3.2.2 All other requests for ISO Address Claim parameter group (NMEA 2000 PGN 060928) shall be addressed to solicit response from a specific device. Addressed requests for ISO Address Claim parameter group (NMEA 2000 PGN 060928) may be used for any of the following situations:

- When a NMEA 2000 certified device detects a transmission from a Source Address and the certified device does not have a corresponding entry in the Address to NAME table, the certified device may interrogate that Source Address by sending an addressed ISO Request (NMEA 2000 PGN 059904) for ISO Address Claim parameter group (NMEA 2000 PGN 060928) to that specific Source Address to obtain the unidentified NMEA 2000 certified device's NAME.
  - When a NMEA 2000 certified device determines that a previously known NMEA 2000 certified device has stopped transmitting (i.e, both -the data at its expected interval has not been received-and-the Heartbeat PGN 126993 has not been received at its expected transmission interval-from that specific device). A NMEA 2000 certified device may interrogate the status of the previously known NMEA 2000 certified device by sending an addressed ISO Request (NMEA 2000 PGN 059904) for ISO Address Claim parameter group (NMEA 2000 PGN 060928) to the last known Source Address.
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