

# CAN and NMEA Messaging

AGRICULTURE

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**TRIMBLE RESELLER CONFIDENTIAL**

## CAN Messaging

If you wish to send messages from the GNSS receiver in the NAV-900 guidance controller, you can set up what messages will be sent from CAN port A or B. If you are using an ISO-certified implement, use this setting to send information to the implement such as speed.

1. From the GNSS Edit screen, tap **CAN Messaging**.
2. Tap the CAN port that you want to change settings for. Choose the messages for the GNSS receiver in the NAV-900 to send to ISO-certified equipment. The list that displays for each CAN port shows the messages and their parameter group number (PGN). For each message, you can choose how often the message is sent:
  - Off (never sent)
  - 10 Hz, 5 Hz or 1 Hz
  - Every 5, 10, 30 or 60 seconds
3. When you are finished, tap the green check mark.

To use ISO-certified equipment, set up what messages will be sent from the GNSS receiver to the implement, such as speed:

1. From the Activity bar on the Home screen, tap the **Universal Terminal** icon to open the Universal Terminal.
2. In the upper right corner, tap the **Menu** icon, then tap the **Messaging** tab.
3. Turn on the settings appropriate for your setup:
  - GNSS Vehicle Position (PGN 65267)
  - GNSS Vehicle Direction/Speed (PGN 65256)
  - Wheel-based Speed (PGN 65096)
  - Ground-based Speed (PGN 65097)
4. When you are finished, tap the green check mark.

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# NMEA Messaging

For the location of this position based on configuration, see [NMEA Message Calculation](#).

Setting	Explanation
<b>Message Rate</b>	How often the message is sent. Options are: <ul style="list-style-type: none"><li>• Off</li><li>• 1 min</li><li>• 30 sec</li><li>• 10 sec</li><li>• 1 Hz</li><li>• 3 Hz</li><li>• 5 Hz</li><li>• 10 Hz</li></ul>
<b>Output Port</b>	Use the NMEA port on your cable harness.
<b>Baud Rate</b>	Baud rate. Options are: <ul style="list-style-type: none"><li>• 2400</li><li>• 4800</li><li>• 9600</li><li>• 19200</li><li>• 38400</li><li>• 57600</li></ul>
<b>Maximum CGA Quality</b>	How high the quality of the message should be.
<b>Latitude/Longitude Precision</b>	Options are 1 through 10.
<b>Messaging</b>	Choose which messages are on or off.

## NMEA Message Calculation

The calculation of the GPS position depends on your configuration.

Type of Steering	Source / Port
Manual guidance	N/A
Autopilot system	Cable harness
Autopilot system	NavController

## Supported NMEA Messages

Message	Description	Information Contained
<b>GGA</b>	Fix information	<ul style="list-style-type: none"><li>• UTC date and time</li><li>• Position</li></ul>
<b>GSA</b>	Overall satellite data	<ul style="list-style-type: none"><li>• UTC date and time</li><li>• Position</li></ul>
<b>GST</b>	GPS Pseudorange Noise Statistics	
<b>RMC</b>	Recommended minimum data for GPS	<ul style="list-style-type: none"><li>• UTC date and time</li><li>• Position</li><li>• Course</li><li>• Speed</li></ul>
<b>VTG</b>	Vector track and Speed over the Ground	<ul style="list-style-type: none"><li>• Course</li><li>• Speed</li></ul>
<b>ZDA</b>	Date and time	

## For More Information

Contact your local Trimble Regional Sales Manager.