SeedSense®

Case IH Pro 700 (Pro 600 v.26 or higher)

- with Hydraulic Steer - Case IH Factory Install

Installation & Configuration Guide for Harness 727131:

Summary: In order for 20/20 SeedSense Monitor to receive NMEA strings from a third party GPS receiver, there are a few simple steps that must be completed before signal will be transferred. Below are step by step instructions detailing configurations and requirements for communicating with our 20/20 SeedSense Monitor. Here are a few basic requirements for the 20/20 SeedSense Monitor.

NMEA Strings: Set at **5 Hz**

- GGA: Time, position and fix type data.
- RMC: Time, date, position, course and speed data.
- VTG: Course and speed information relative to the ground.

Baud Rate: 19200 or 38400

Precision Planting Harness: 727131

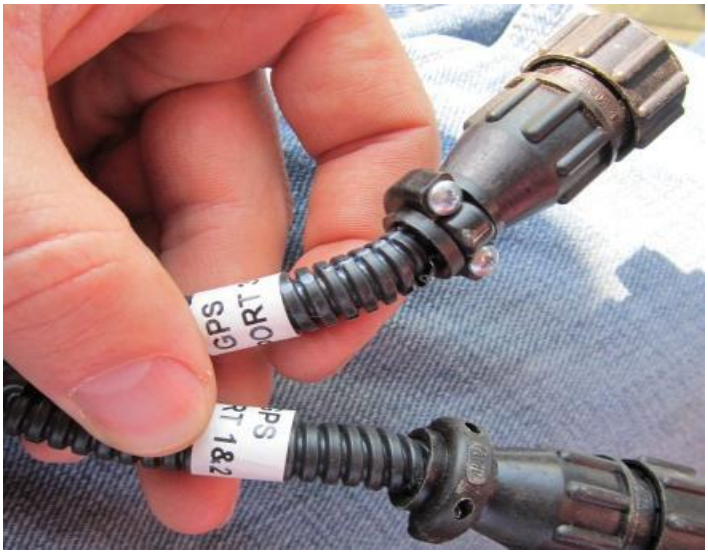
Locating the NAV II controller and installing harnessing

Step 1: Locate the NAV II controller box inside the access panel behind the seat. Remove all four wing nuts. (This location is for Magnum Tractors) Other locations could be 4WD under the “buddy seat” and combines typically found under the armrest or under the cab

Step 2: Slide the NAV II box off of the threaded studs to expose the connectors on its right side. There is a 12-pin Deutsch plug labeled “Controller Diagnostics.”

Step 3: Connect the 12-pin Deutsch connector on the 727131 Trimble GPS Adapter to the 12-pin Deutsch “Controller Diagnostics”.

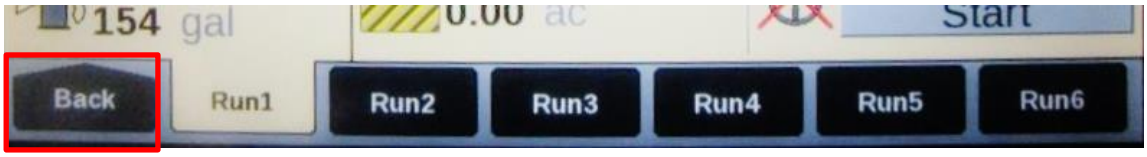
Step 4: Connect the 4-pin AMP “**GPS Port 1&1 2**” to the “**GPS**” port on the SeedSense tractor harness.



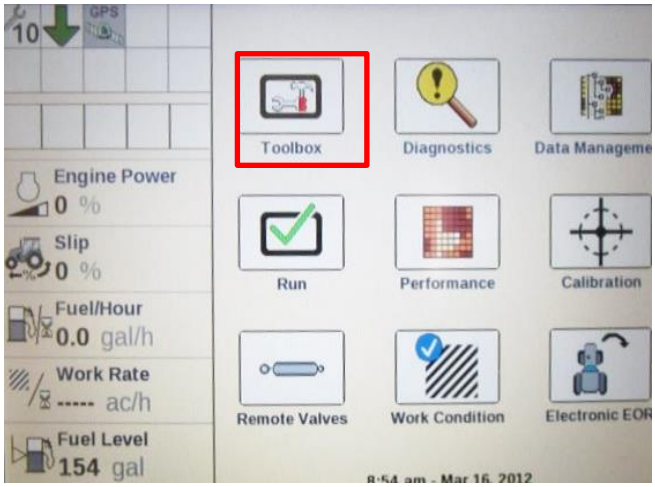
Display Configuration:

Next we will look at visual images giving step by step instructions to output NMEA messages from the Case Pro 600/700:

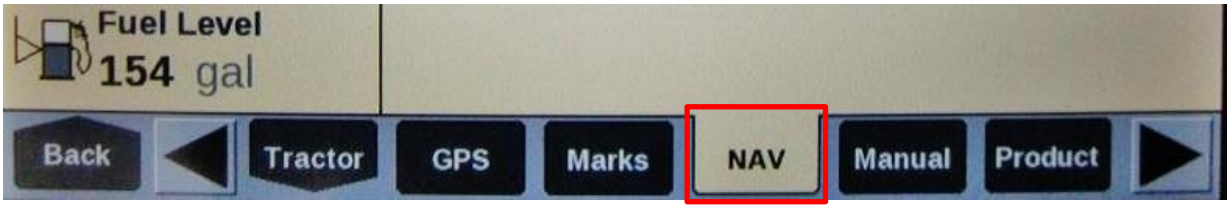
Step 1: On the Run screen on the Pro 700, navigate to the menu by touching “Back”.

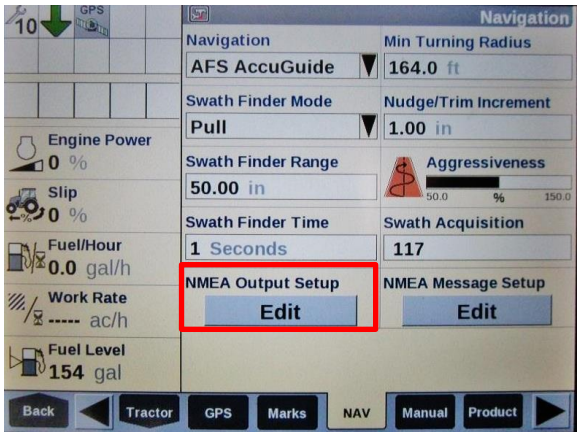


Step 2: Touch the “Toolbox” button.



Step 3: Navigate to the NAV tab across the bottom. Arrow over if needed. You will use the NMEA Output Setup and NMEA Message Setup buttons for configuration.





Step 4: Press Edit to configuration the NMEA Output Setup. Touch the arrow down to select the following:

NMEA Output- On

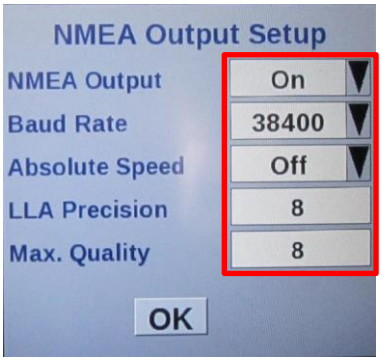
Baud Rate
- 19,200
- 38,400

Absolute Speed = Off

LLA Precision = 8

Max. Quality = 8

Click “OK” when finished.

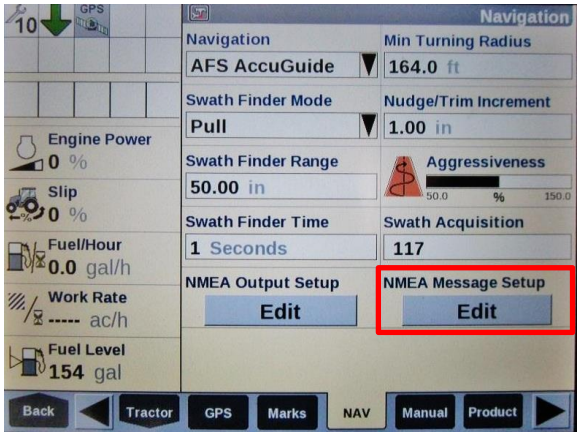


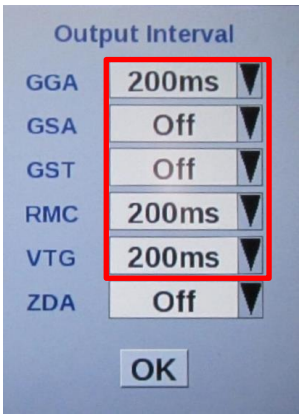
Step 5: Continue configuration with the NMEA Message Setup and press Edit.
Select the following output intervals:

GGA-200 ***ms***
RMC-200 ***ms***
VTG-200 ***ms***

Note: The Pro 600/700 requires millisecond (*ms*) values as opposed to hertz (Hz) values.

Click “OK” when finished.
The NAV II controller should now be configured to output GPS to the 20/20 system.

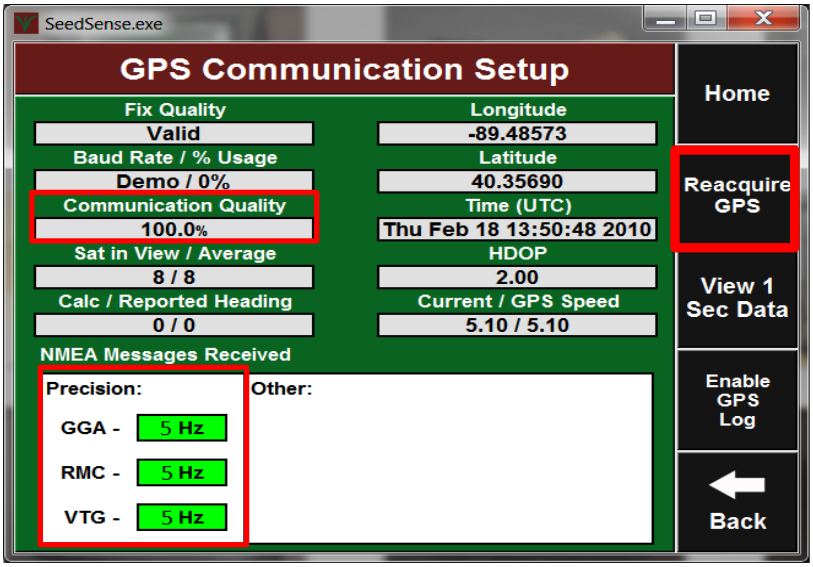




To verify GPS communications we will need to go to the 20/20 SeedSense Display Unit.

From the home screen press the SPEED/GPS button

First press REAQUIRE GPS: Then Verify Communication quality and NMEA Messages



Troubleshooting GPS Measurements

Using an AutoPilot Controller with 20/20 SeedSense

Problem: AutoPilot controllers (NAV2) output the GPS location of the rear axle, rather than the GPS location of the antenna.

Solution: In this case, enter the "Forward" distance in the 20/20 as 0 (Setup / Systems / GPS / Tractor / Forward, C)

Models Included: *This may apply to any of the following monitors:* FMX, FM1000, FMD, Insight, CFX 750, EZ-Guide 500, EZ-Guide Plus, DJ Inteli Ag, Pro600, Pro700. Any system where the GPS signal comes from the NAV2. This does NOT include a system that is pulling the GPS directly from the Receiver on the top of the cab.

Is my model affected?
To confirm if this applies to your system, a simple test can be completed.

1. Have your tractor parked outside, with the GPS receiver system and the 20/20 powered on, and the GPS connected between them.
2. View the GPS Communication page on the 20/20 (Setup / Systems / GPS / GPS Communication).
3. Record this GPS location on a notepad.
4. Next, change the antenna to rear axle distance on your GPS receiver (Configuration / AutoPilot / Calibrate / Roll Antenna Compensation / Antenna Distance from Fixed Axle).
5. This can be changed from 0 ft. to 20 ft.

   On our initial test, changing the GPS offset changed the coordinates displayed by about 0.00004. If changing this distance on the GPS receiver changes either the latitude or longitude values on the 20/20, then your GPS is outputting the location of the rear axle. Be sure to input the original values into your GPS before leaving this test.