How to set up NMEA output from a Trimble 372 receiver with a Pro700.

The parts that will be required are
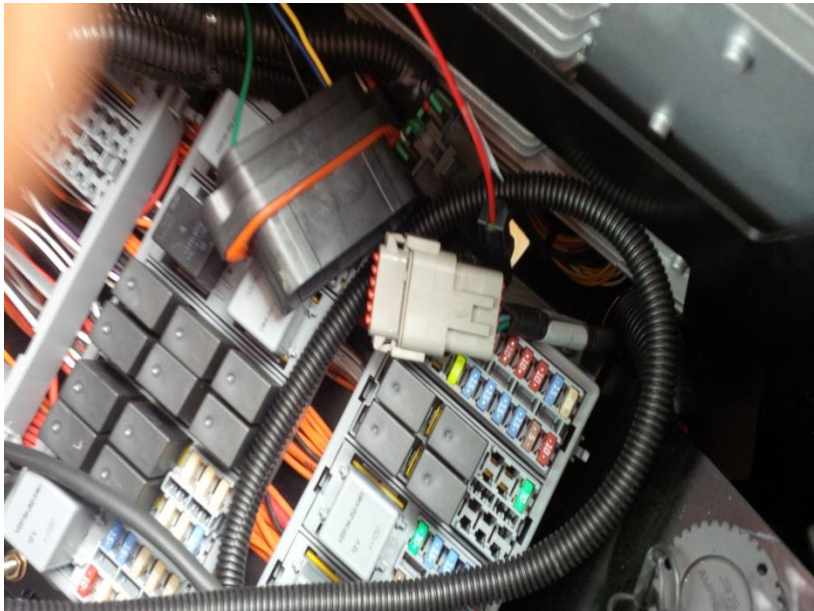- ZTN50166 Trimble Cable
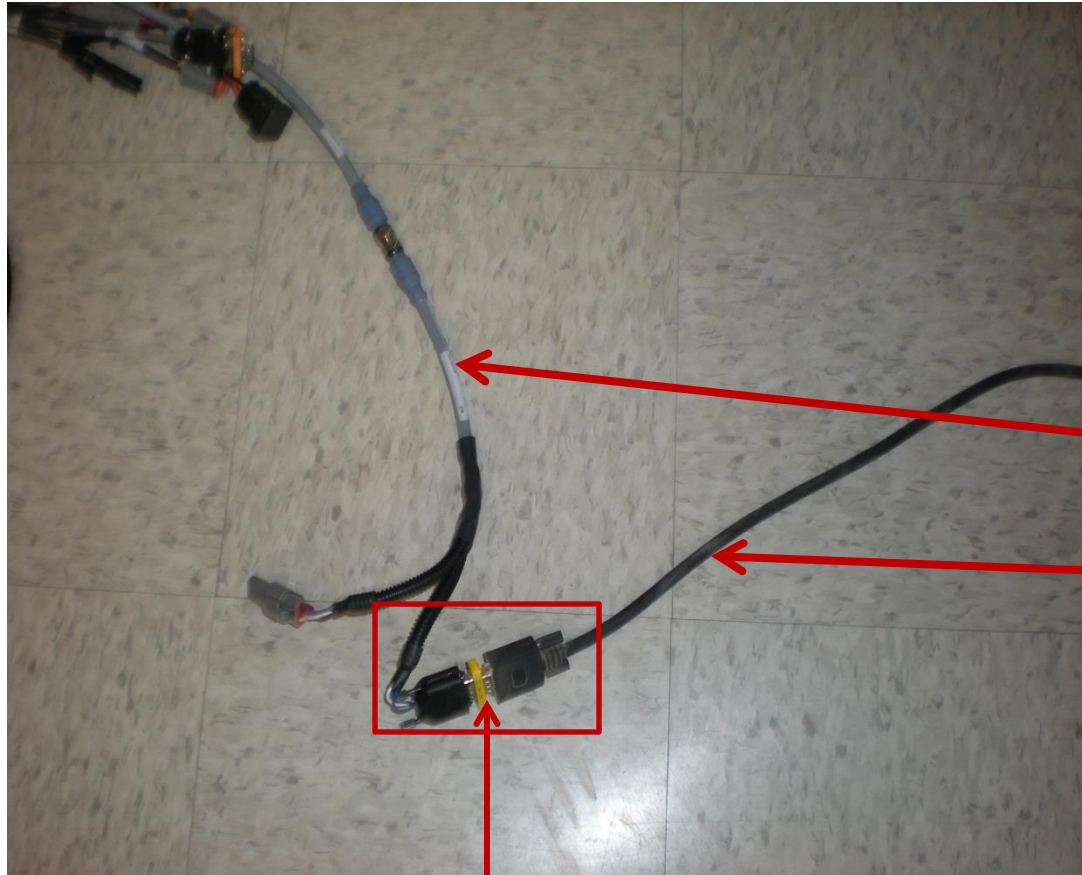- A serial null modem or a mini gender changer

You will need to find the NAVII Diagnostics harness that is located under the buddy seat around the fuse panel. This will plug into the ZTN50166 Trimble harness.
You will be using either the com 1 or the com 2 plugs on the Topcon harness to connect to the ZTN50166

NOTE: Do not plug the cigarette Lighter adapter in that is attached to the Trimble harness.
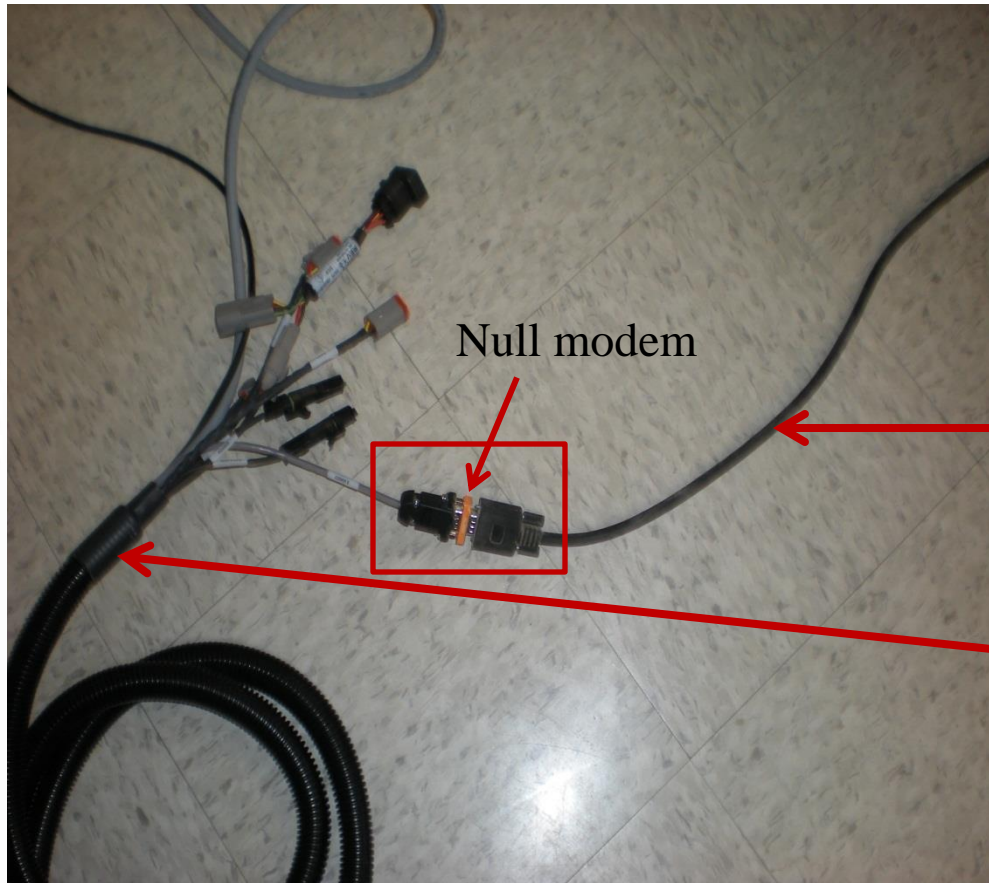
COM 1
When hooking the Trimble cable 50166 to the X30 though Coms 1 you will need a serial Gender Changer.

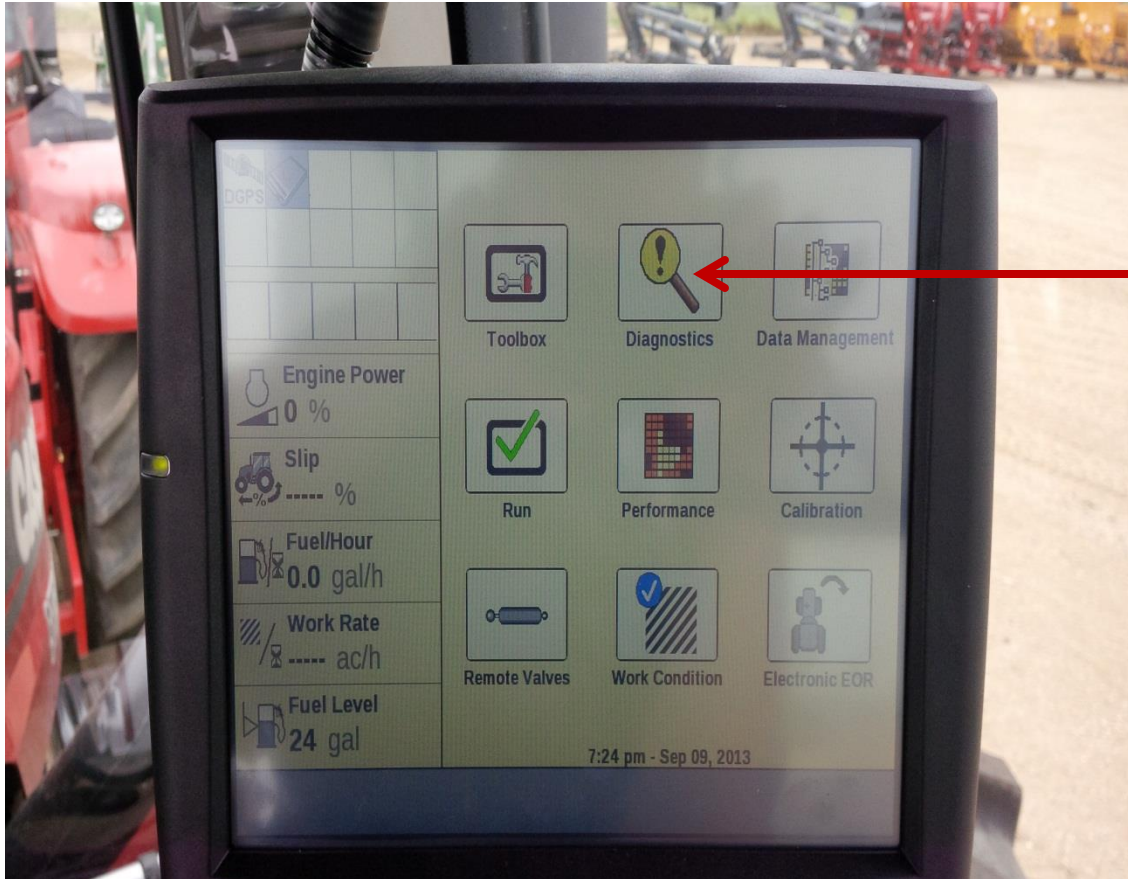X30 Main Harness Coms 1

Trimble 50166 Harness

Serial Gender changer

COM 2
When hooking the Trimble cable 50166 to the X30 though Coms 2 you will need Null Modem.
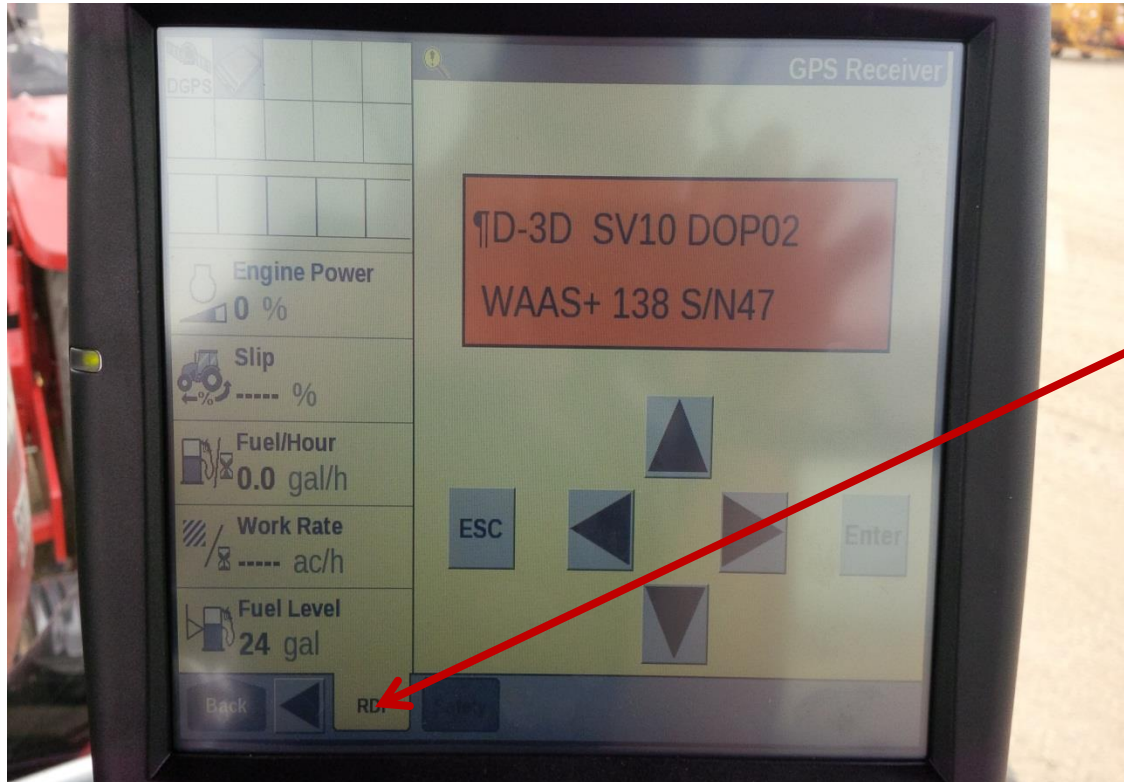
Null modem

Trimble Harness 50166
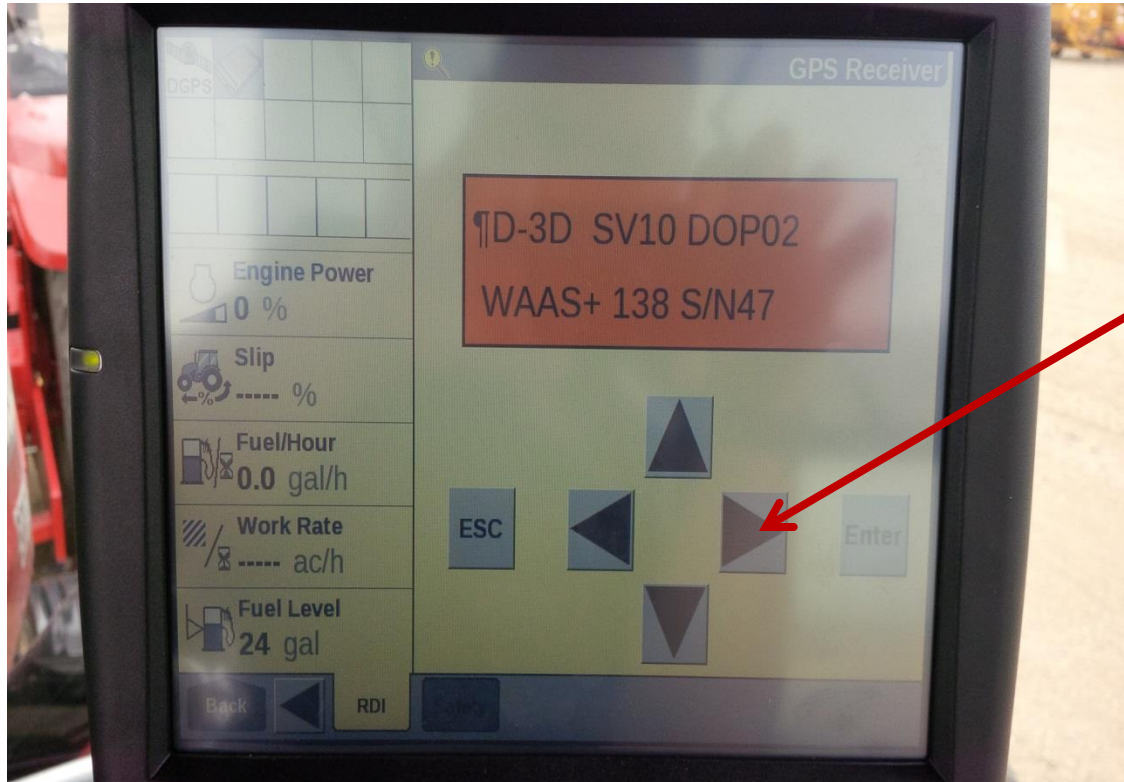
X30 main Harness COM 2

From the main screen press the Diagnostics button

Scroll to the Right and press the RDI tab

Press the right arrow

Press the right arrow again

Press down to entire the configuration menu

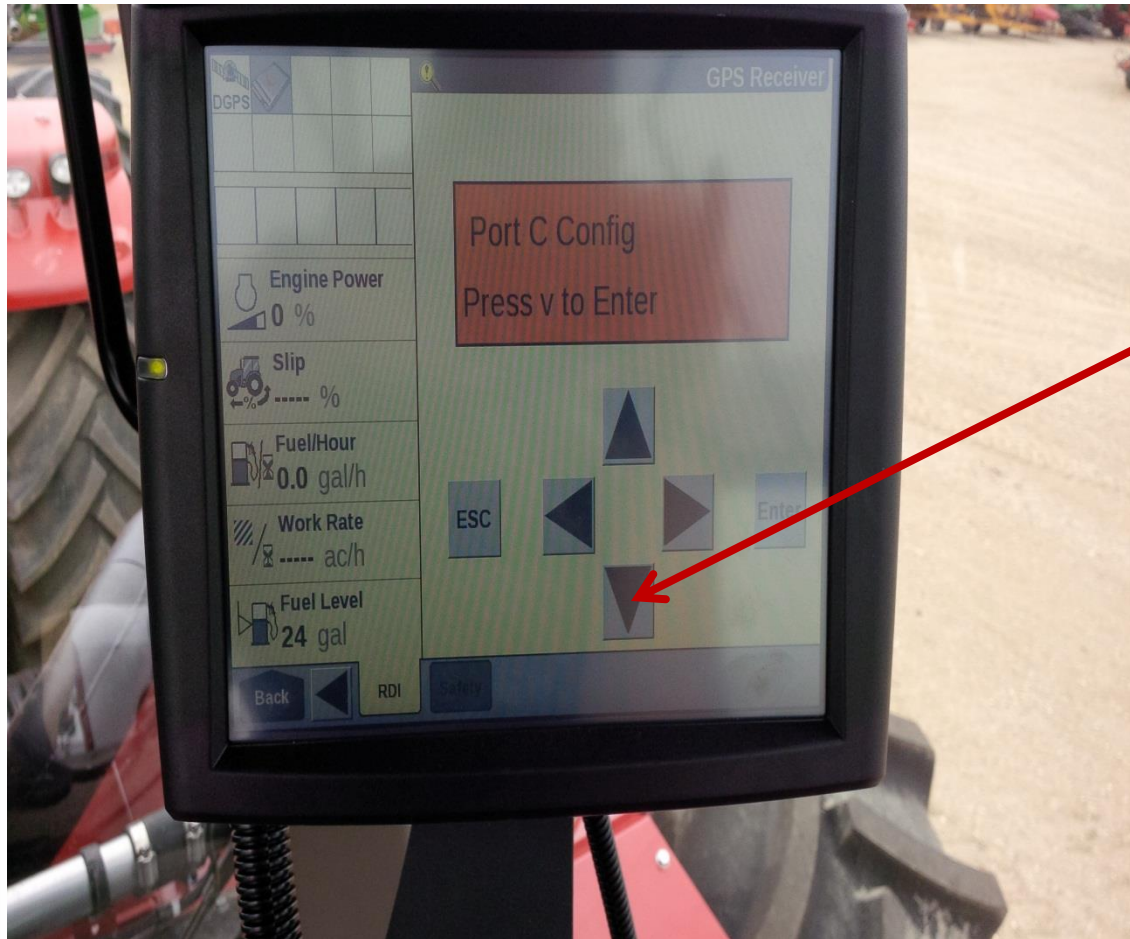Press the right arrow

Press the right arrow
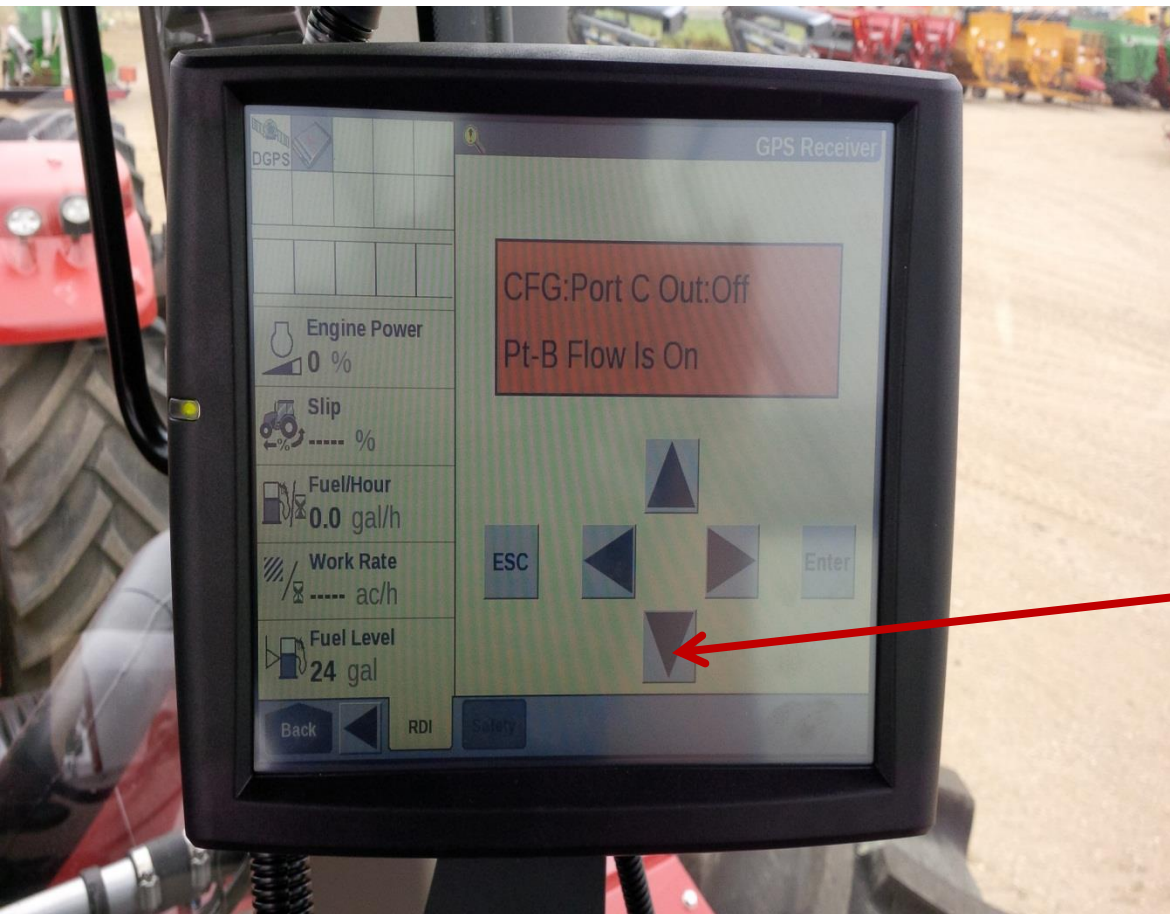
Press the right arrow

Press the right arrow

Press down to enter port C configuration

This page should be telling us that Port C out is OFF and that Port B flow is ON and this will be the proper configuration. If it is different press right , then up and enter.

Next press the down arrow until you get to the exit page.

Go back to the PORT C.

Press the down to enter port B configuration.

On this page we want to see
I TSIP 38K.4
8N1 0 NMEA 38K.4

If you don't have this you will need to re-configure.

Press the down key to move on.

This page needs to be set up as follows.

PORT B Out

RTS/CTS Off

Press the down arrow to move on

On this screen the GGA should be in Capitals

Next press the down arrow

On this screen ensure that VTG and ZDA are in capitals letters.
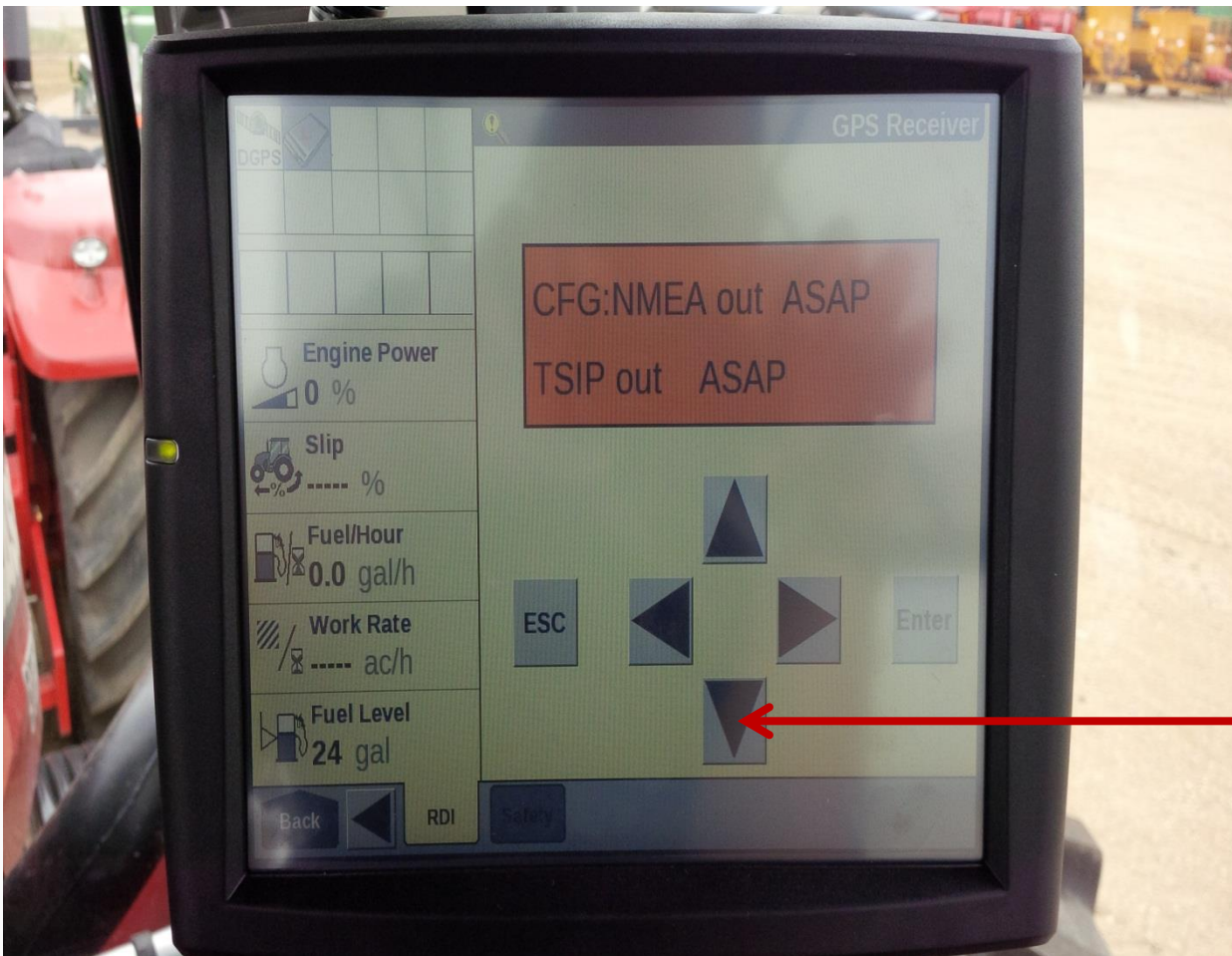
Next Press the down arrow
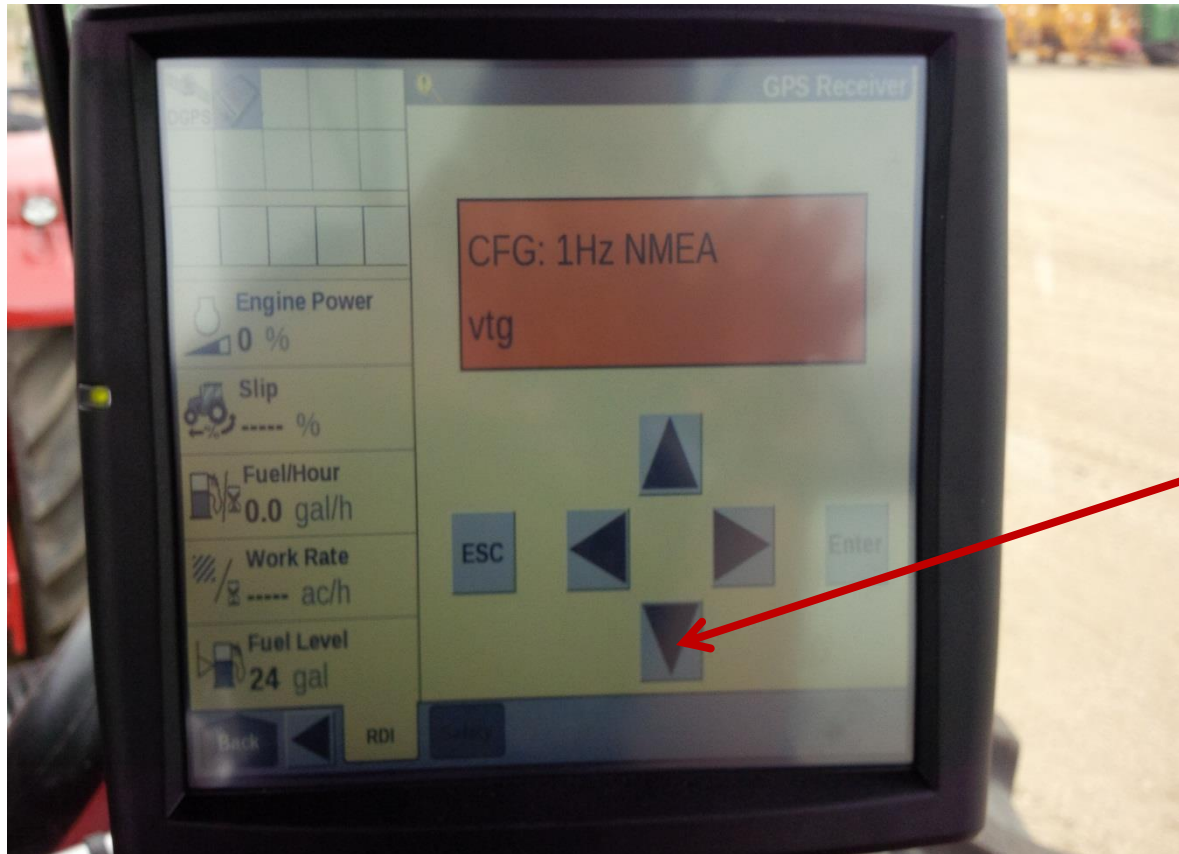
This screen should look like this

NMEA out   ASAP

TSIP out   ASAP

Next press the down arrow

NOTE: if you find the that the signal in the X30 is intermittent one of these is not setup right.
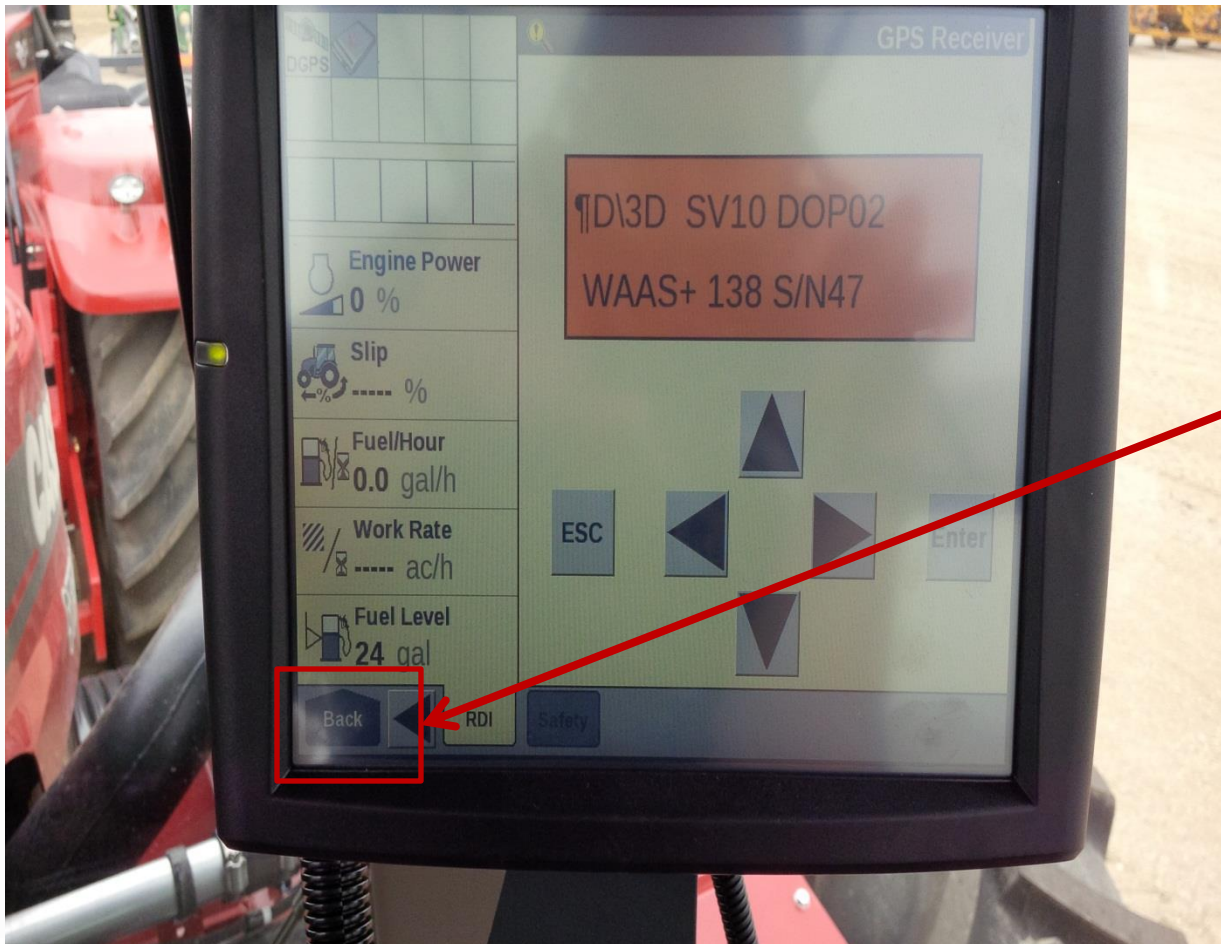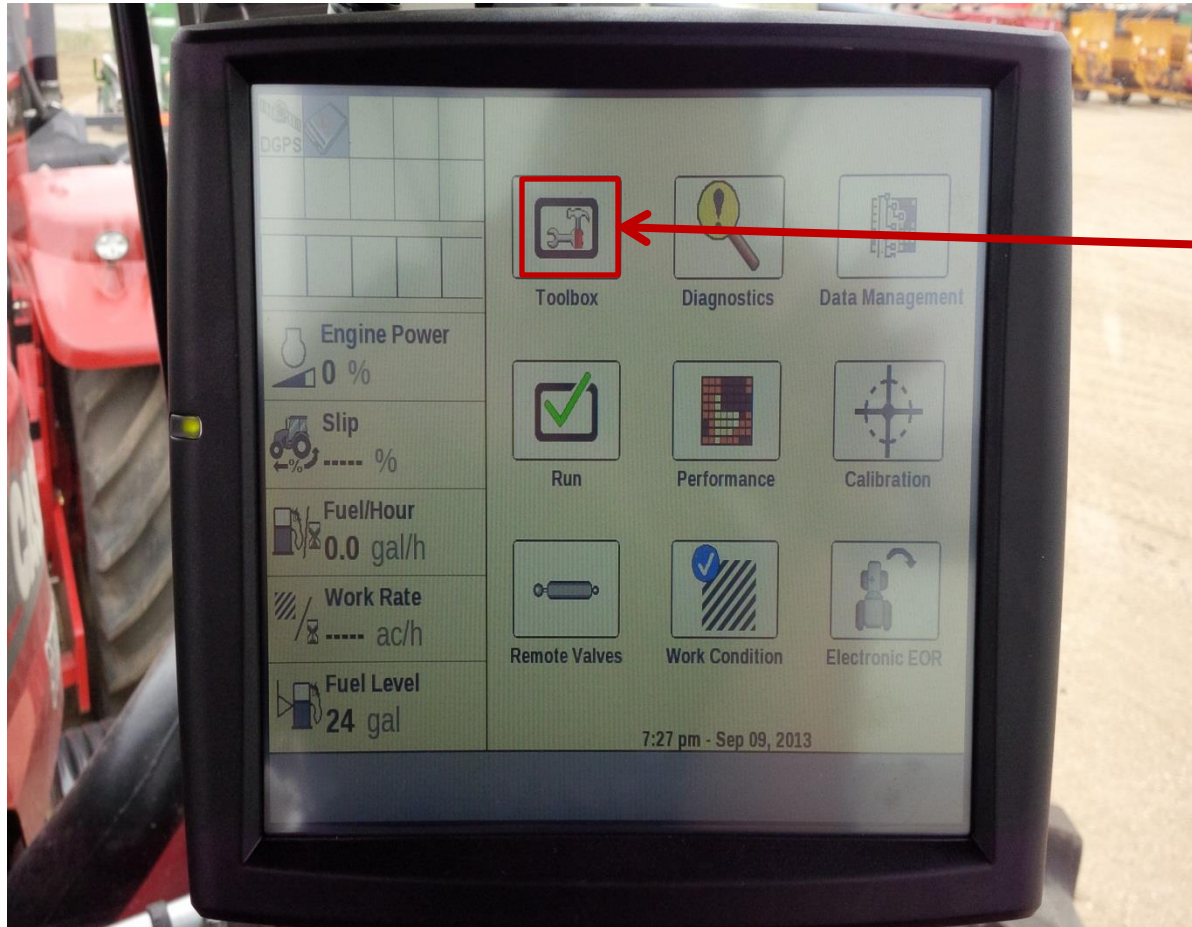
Press the down arrow to continue

The NMEA Quality should be set to

Report True Mode

Then press the down arrow

From here we need to go back to the main screen. We will touch on the Back button on the bottom left corner.

From the main screen we will go into the Toolbox.

Press on the toolbox button

Scroll over to the NAV tab along the bottom of the screen.

Once on the NAV tab, touch on the edit button below NMEA output setup

NMEA Output Setup

NMEA output   ON
Baud Rate   38400
Absolute Speed   Off

Then press the OK button to go back.

Then go and touch the edit button under
NMEA Message Setup

Output interval

GGA 200ms(5Hz)
GSA OFF
GST OFF
RMC OFF
VTG 200ms(5Hz)
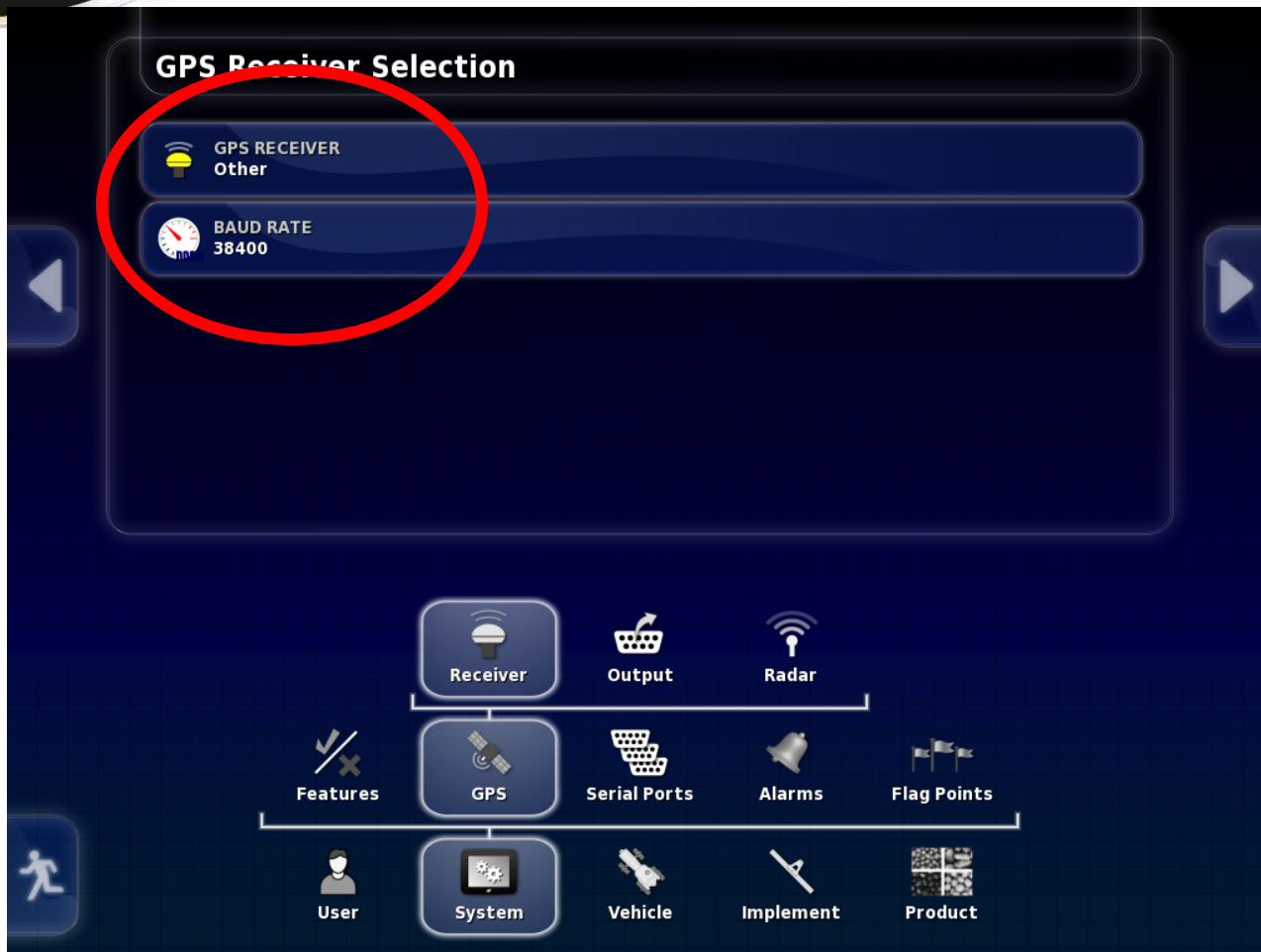ZDA 10.0s(0.1Hz)

Then press the OK button

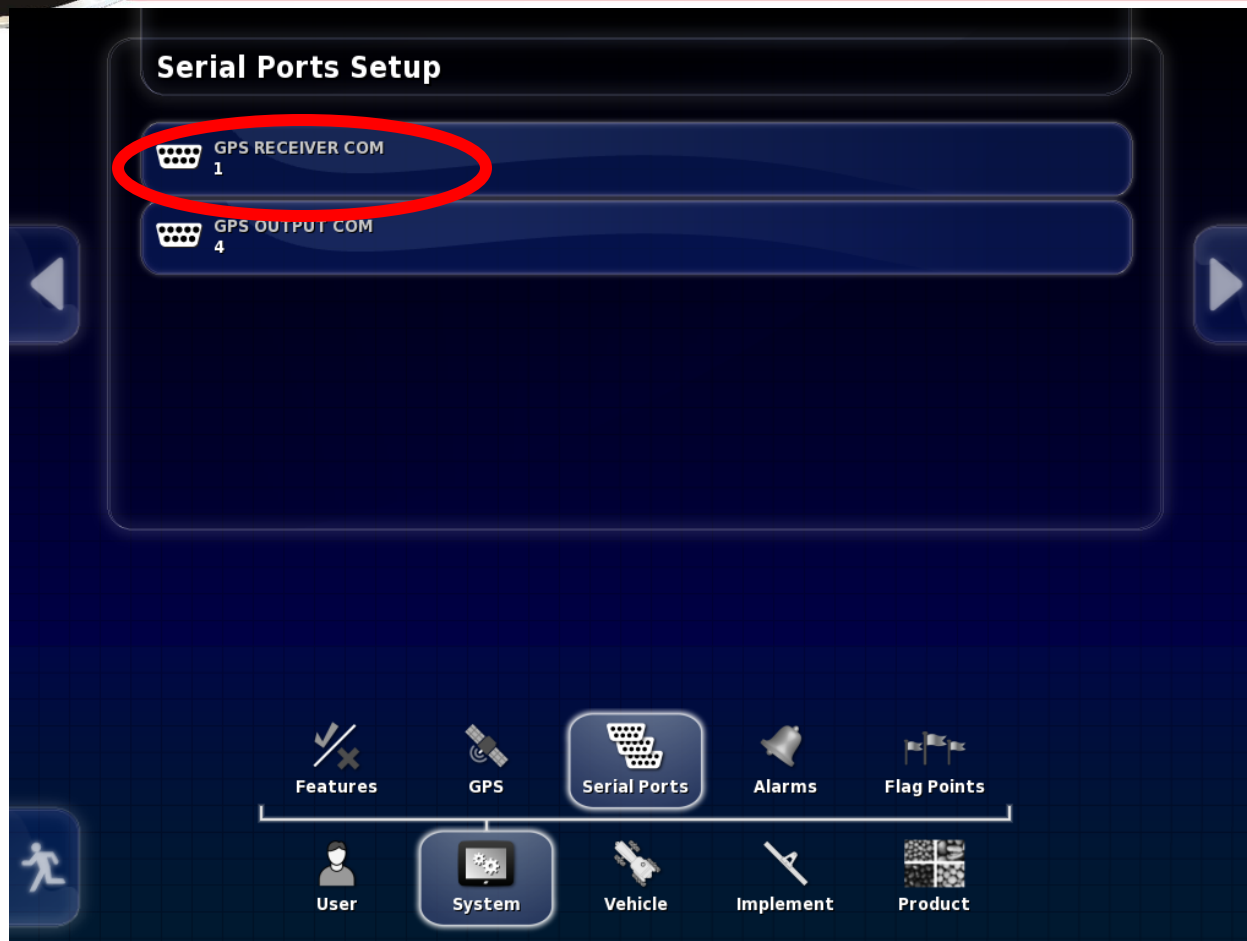Scroll over to the GPS tab on the bottom of the screen.

You will need to go in and set up your DGPS type.

After this you have completed the pro 700 part.

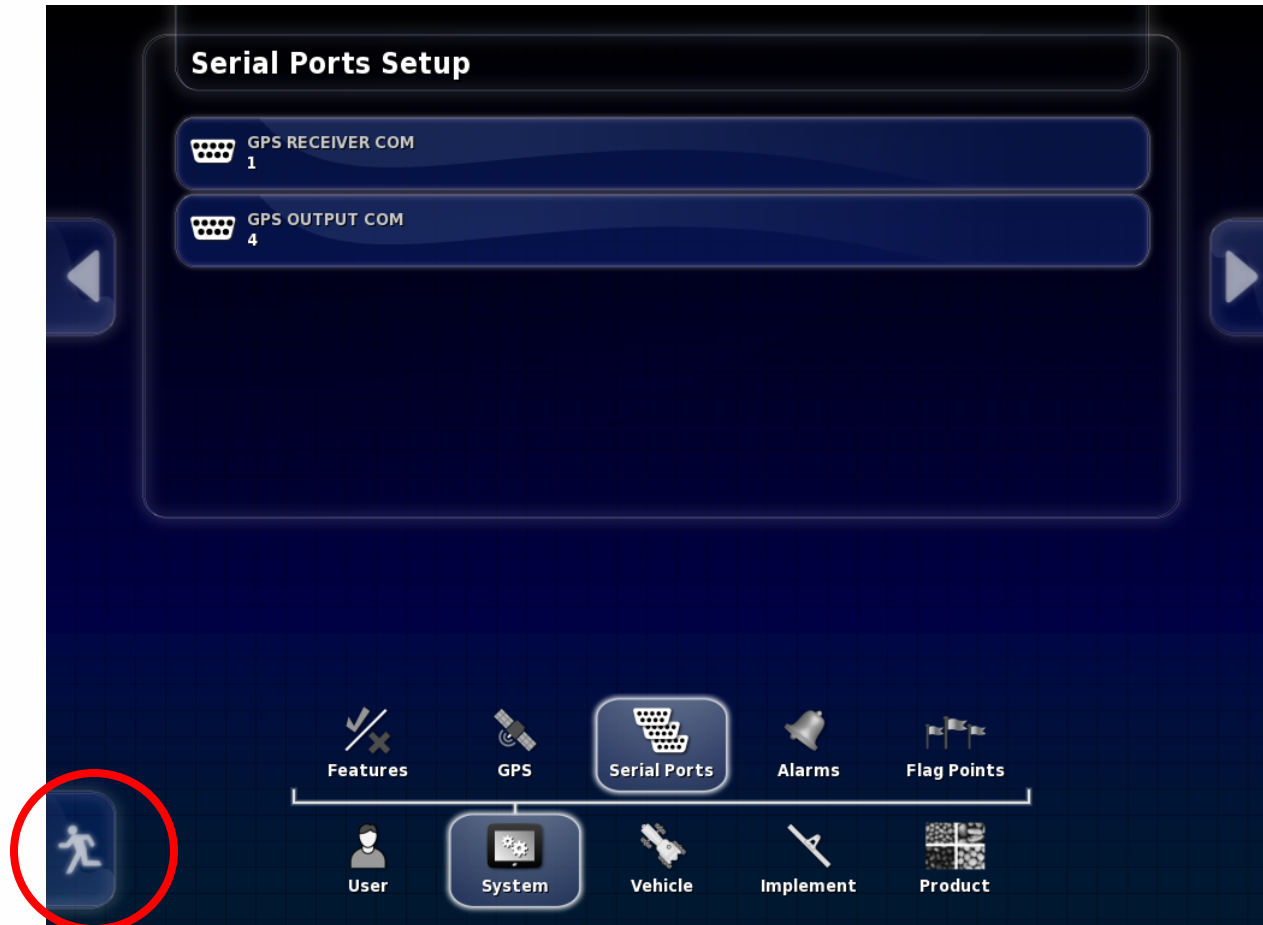Then you can finish the few simple X30 steps.

Set GPS RECEIVER to Other and the BAUD RATE to match the PRO 700 output.

Set to match the way the signal is being brought in to the X30.

- Com 1 with the gender changer
- Com 2 with the null modem

Touch the running man to go back to the operating screen

Expand GPS Mini view

Verify position here!