Field Service Builletin

FSB No.	FSB-002
Revision	A
Issue Date	25/05/2010
Subject	Veripos Topcon Setup
Issue	How to setup a TOPCON card to work with the MiniPos2 product line.
Equipment Affected	MiniPOS2, MiniRLG2, MiniPOSNAV
Tools Required	PC with comms port
Safety Issues	None

Summary

The purpose of this document is to describe to the user how to setup a TOPCON card to work with the MiniPos2 product line. If the TOPCON card is installed in a Veripos LD2 and require more information on how the Veripos LD2 unit is operated please visit (http://help.veripos.com)

This same procedure will work for MiniPos2, MiniRLG2 (when used as a Hain generator), MiniPOSNAV. The only products not covered here within are units that have been built and wired specially for an individual customer. If you require clarification on whether the unit has GPS aiding enabled please contact CDL for further information.

Revision History

Rev A	First revision of this document	DRH	31/05/10

Revision	Author	Date	Approval
Rev A	Daniel Roscoe-Hudson	13/05/10	

Solution

CONNECTING TO LD2 GPS RECEIVER USING PCCDU

A straight through serial cable is required and should be connected between COM1 of a PC to P5 connector on the back of the LD2.

Via the LD2 menu select **Configuration > Serial Ports > P5** and check that the **GPS I/O** is set to **Remote**. Next, select Configuration **> Serial Ports > P1** and check that **Nema Out** is set to **"GPS RX"** and not to **"local".**

Remember to set the GPS I/O back to off once the process is completed then as good practice, power cycle the LD2 unit to ensure all internal computations re-start.

PC-CDU software is supplied on the Veripos CD shipped with the equipment. Alternatively the software is available via the VERIPOS downloads site:
http://downloads.veripos.com/downloads/PC-CDU/PCCDU_MS_7_12.zip

Alternatively, the software can be downloaded from the Topcon website (N.B. you will need to register as a user): http://www.topconpositioning.com

Download PC-CDU lite and follow the installation instructions. Once the software has been installed, run the software ensuring that **COM1** is selected and then the software will automatically scan baud rates until it can communicate with the GPS card.

Provide a suitable antenna is connected to the GPS connector on the back of the LD2, information on the satellites being tracked by the GPS card will be displayed as shown in Figure 1.

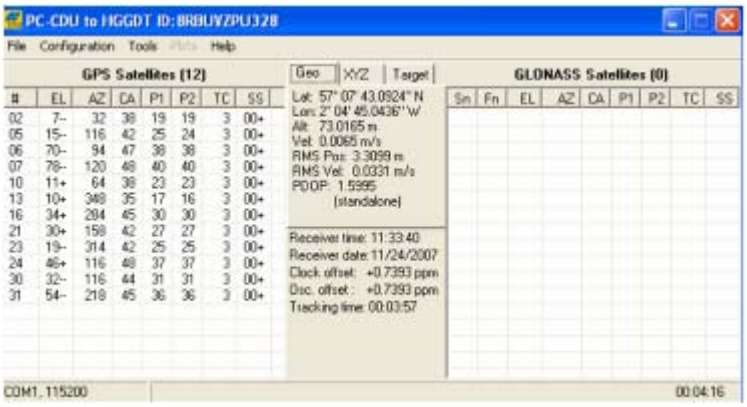

Figure 1 - PC-CDU Main Communication Window

To enable the ZDA, GGA, GSA, VTG output, first run up the PC-CDU software and from the menu select **File** and **Manual Mode** (see Figure 2).

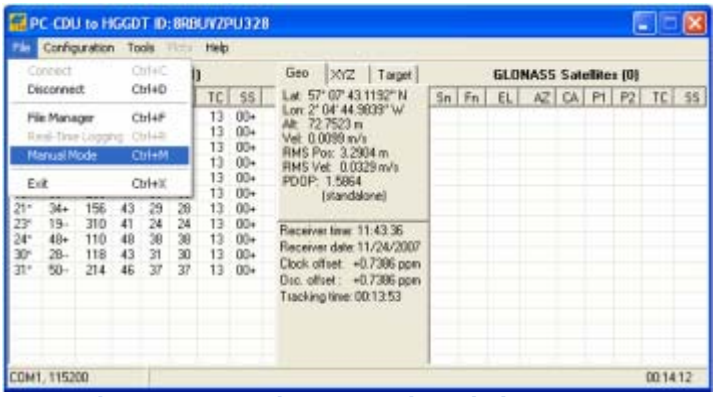

Figure 2 - Entering Manual Mode in PC-CDU

To actually enable the ZDA, GGA, GSA, VTG outputs the following four commands needs to be typed (case sensitive): *NOTE: these can be copied and pasted into the manual terminal

1) em,/dev/ser/b,nmea/ZDA:{1.00,0.00,0,0x0}
2) em,/dev/ser/b,nmea/GGA:{1.00,0.00,0,0x0}
3) em,/dev/ser/b,nmea/GSA:{1.00,0.00,0,0x0}
4) em,/dev/ser/b,nmea/VTG:{1.00,0.00,0,0x0}

After each line is keyed in it is necessary to press the Send Command button (see Figure 3).

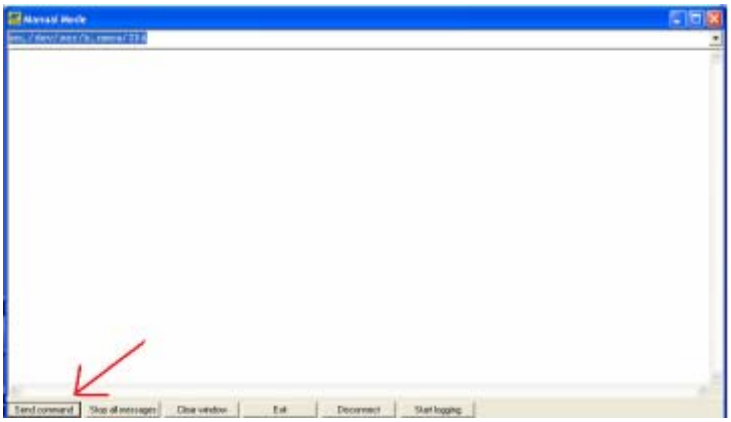

Figure 3 - Configuring ZDA, GGA, GSA, VTG Output in PC-CDU Manual Mode

Verification

To verify that the ZDA is being output from P1 of the LD2 unit, the user can use a terminal program such as CDL's DataMate to check for a valid ZDA output as shown in Figure 4. Alternatively, any terminal program such as HyperTerminal or TeraTerm can be used.

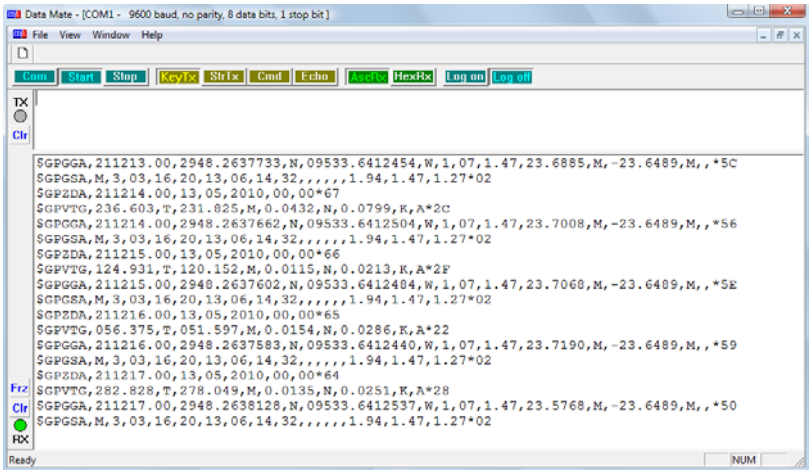

Figure 4- ZDA, GGA, GSA, VTG Output Displayed in HyperTerminal

If no output is observed in DataMate, check the cabling and then the baud rate settings of the GPS card using the PC-CDU software. Using the menu in PC-CDU go to **Configuration** and **Receiver** and **Ports** then check that **Serial B** is set **9600** (see Figure 5).

NOTE: In order for the MiniPos2 to receive the GPS data from the Veripos LD2 unit its receiver configuration for **port b must be set to output at 9600 baud**.

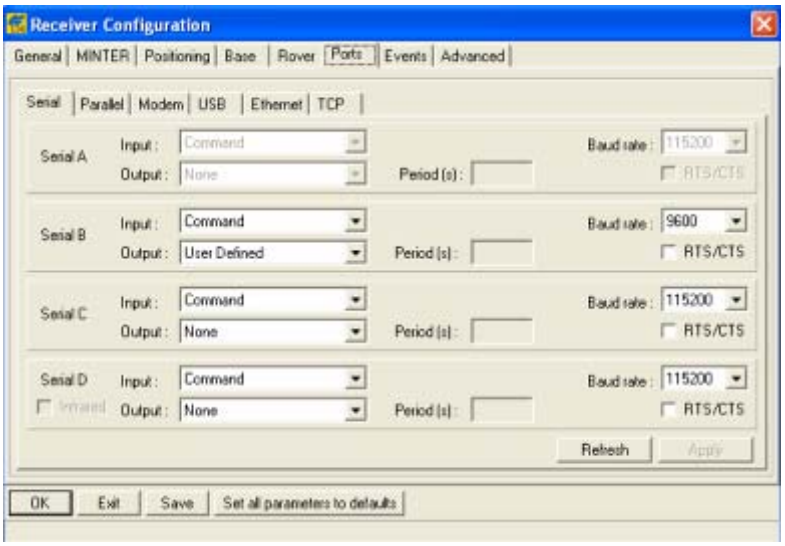

Figure 5 - PC-CDU Receiver Configuration (Ports)

Please visit our website at www.cdltd.net where you can find more information, other FSBs, downloads and contact numbers for any further support questions.