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1.0 Introduction

This document outlines the step by step procedure in configuring ComNav T300 RTK System for real time kinematic (RTK) operations.

The RTK procedure is done via the controller that comes with the T300 RTK System. Corrections are sent using NTRIP (Networked Transport of RTCM via Internet Protocol) and Wi-Fi or GSM/GPRS connection as data link.

2.0 Real Time Kinematic Survey

The T300 receiver interface, including its button functionalities and LED indicators, are shown below:



Figure 1. T300 receiver control panel, LED indicators and function keys

1. Differential LED

- As a Base Station: flashes once per second when transmit differential data

2. Satellite LED

- Flashes N times every 5 seconds. Number of flash is equal to number of satellites locked by the receiver.

3. Bluetooth LED

- Flashes when controller is connected with the T300 receiver via Bluetooth.

4. Battery LED

- Indicates if T300 GNSS receiver is on or off. Status of LEDs are as follows:

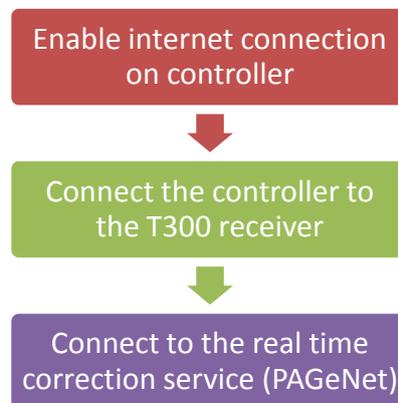
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- 2 battery LEDs ON – external power supply
- 1 battery LED ON – internal power supply

5. Power button

- Turn ON – press button for about 1 second, all LEDs light up simultaneously and remain lit for 3 seconds.
- Turn OFF – long press the button until all the LEDs are off.

The workflow for the RTK connection is as follows:



2.1 Enable internet connection

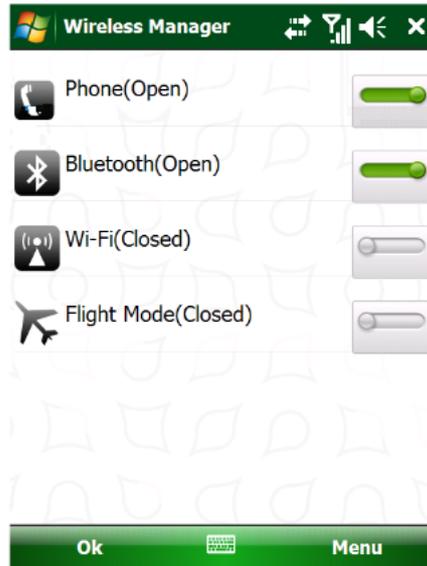
ComNav T300 GNSS Receiver can connect to the internet via WIFI or GSM/GPRS.

- To open **Wireless Manager**, go to Settings then to Wireless Manager



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- To connect via **Wi-Fi**, enable Wi-Fi. Enter the corresponding network authentication.
- To connect via **GSM/GPRS**, enable Phone.

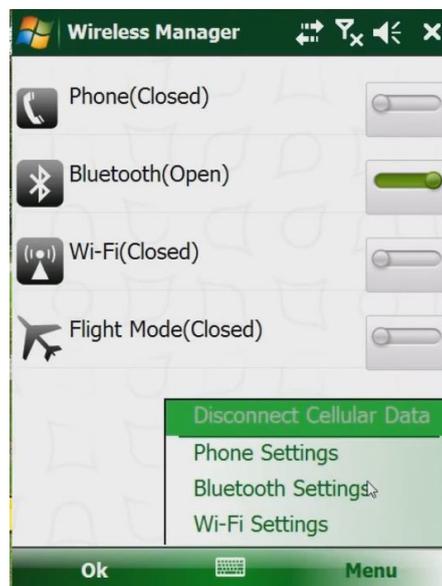


2.2 Connect the controller to the T300 receiver

Before proceeding, make sure that the T300 receiver and the controller's Bluetooth feature are turned on.

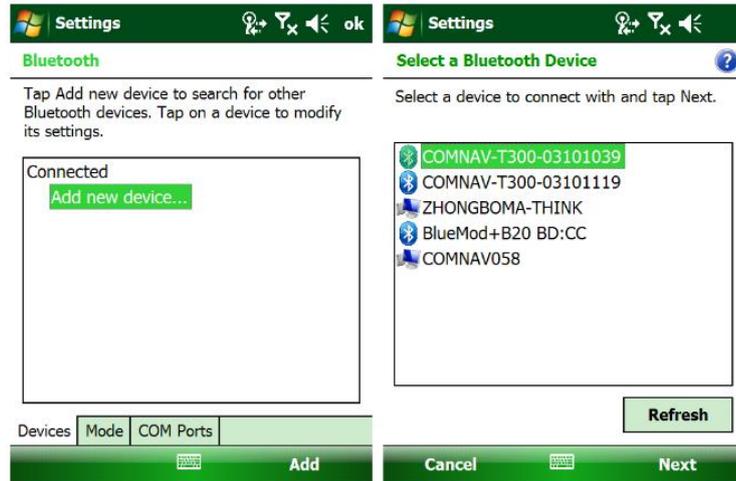
2.2.1 Pair the controller with the T300 receiver via Bluetooth

- From the **Wireless Manager**, click Menu then Bluetooth Settings



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- In Device tab, click **Add new device** to search the Bluetooth device (ensure T300 is power on). Choose the right device according to the SN number and click **Next**.

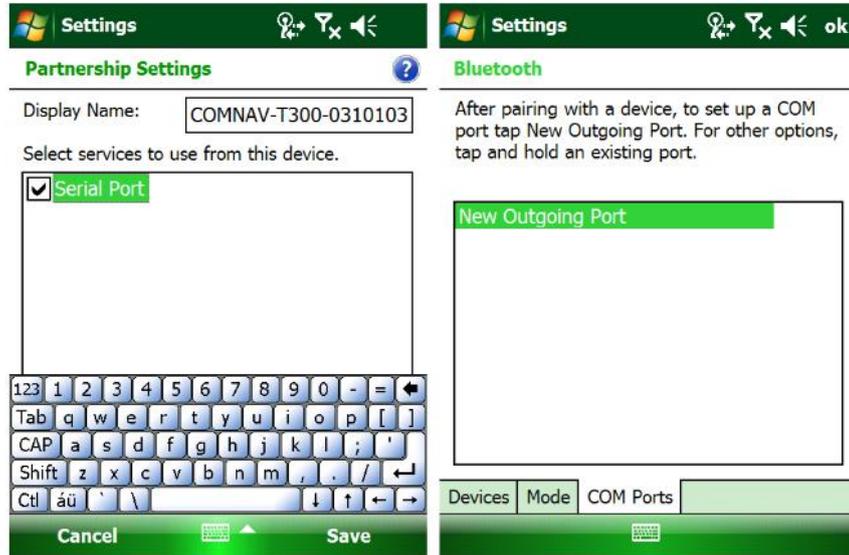


- Enter passcode for secure connection. Click **Advanced**.

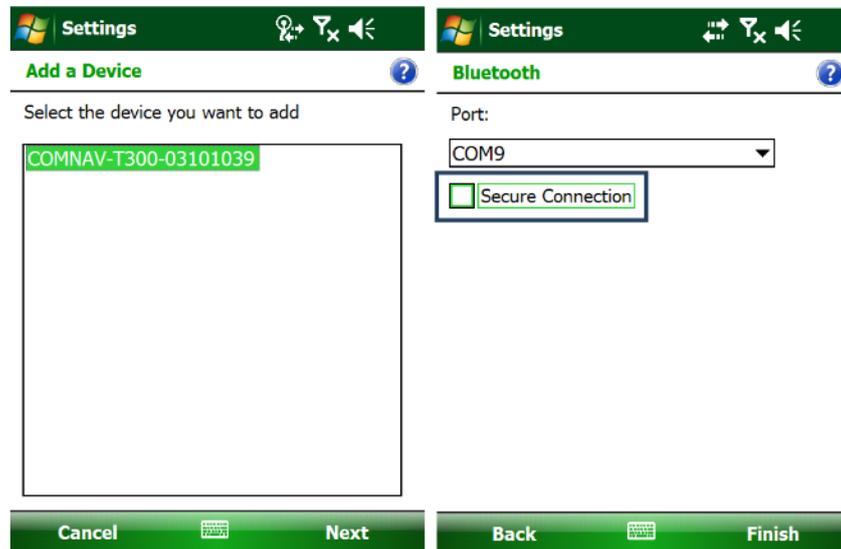


- Choose **Serial Port** and click **Save**. Then go to COM Ports tab, and add **New Outgoing port**.

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- Choose the right device according to Serial Number and click **Next**, then choose a port number, do not check the Secure Connection, click **finish** and tap **ok**.



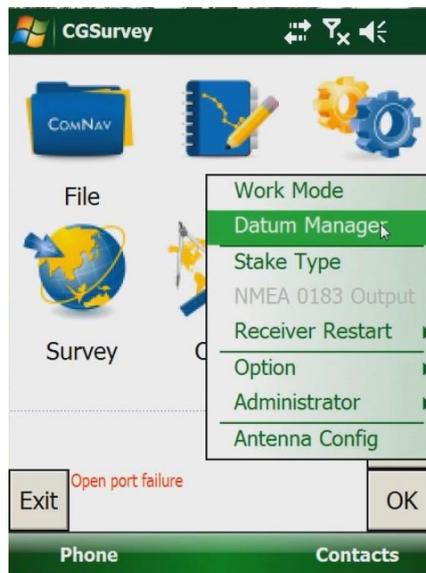
2.3 Start Rover by CGSurvey

- Run the **CGSurvey** Application

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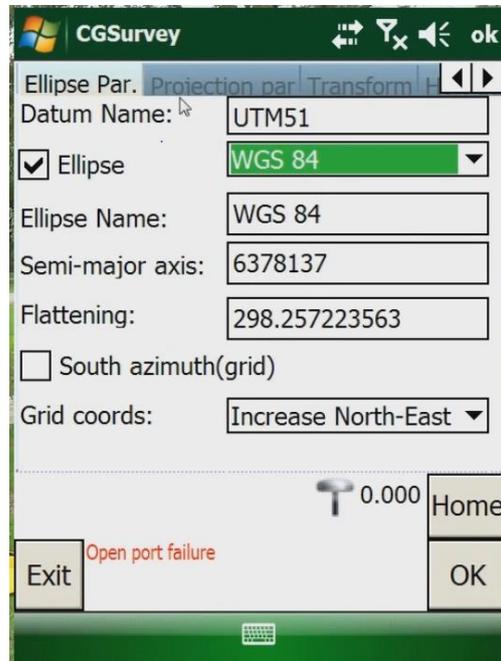
- From the **Main Menu**, select **config** then choose Datum Manager.



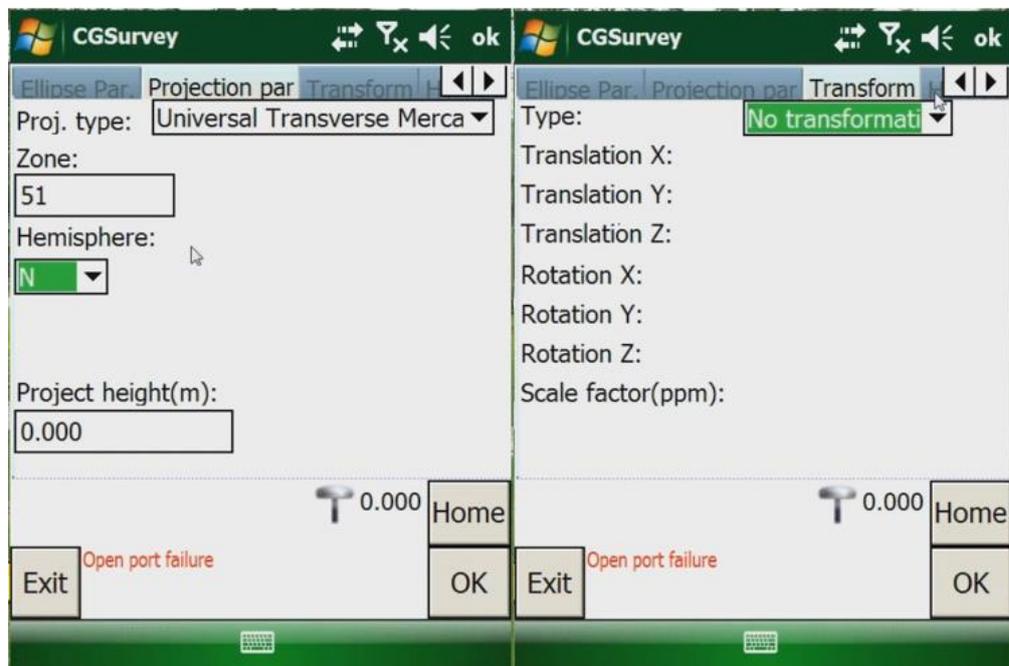
- Select the Local Coordinate System (Create New, if there's no existing system)



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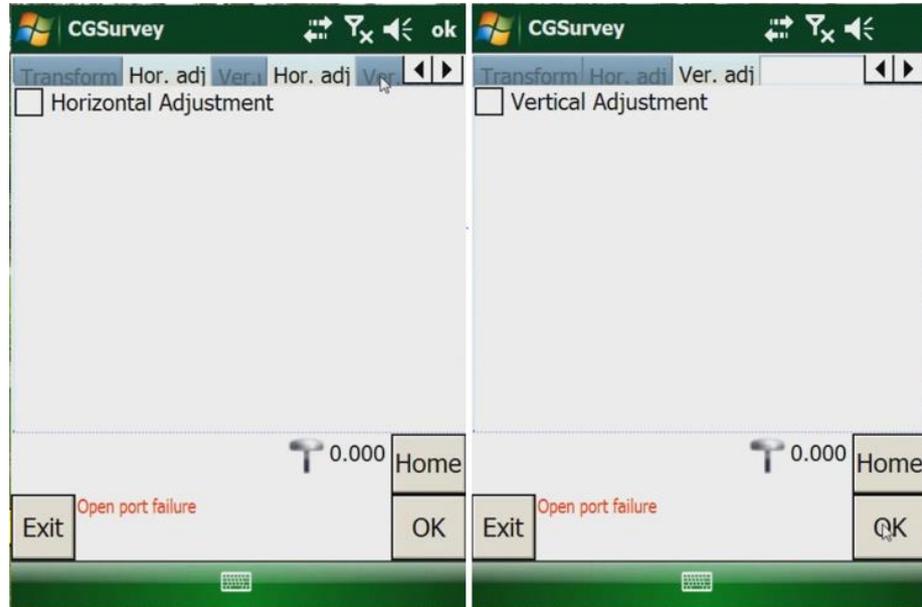
- Follow below configuration



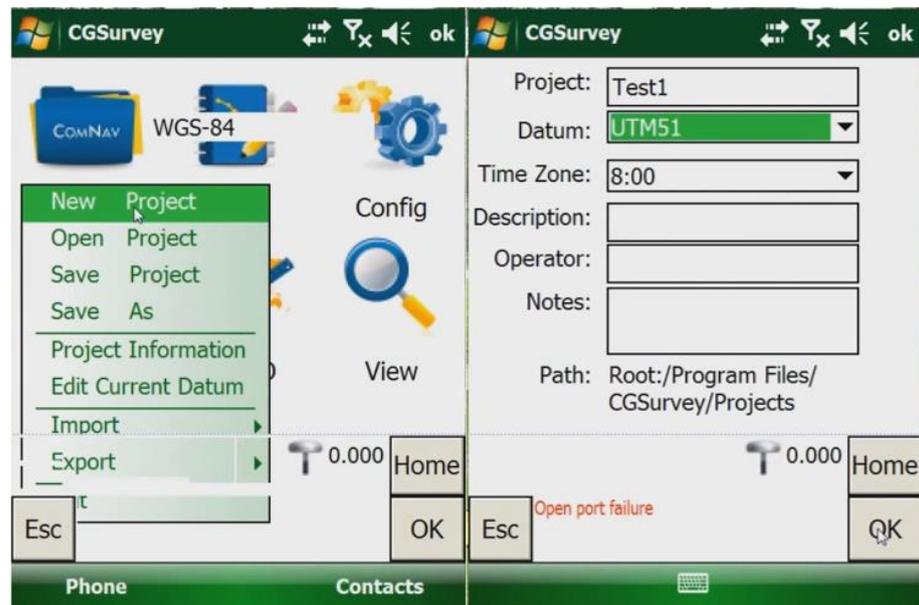


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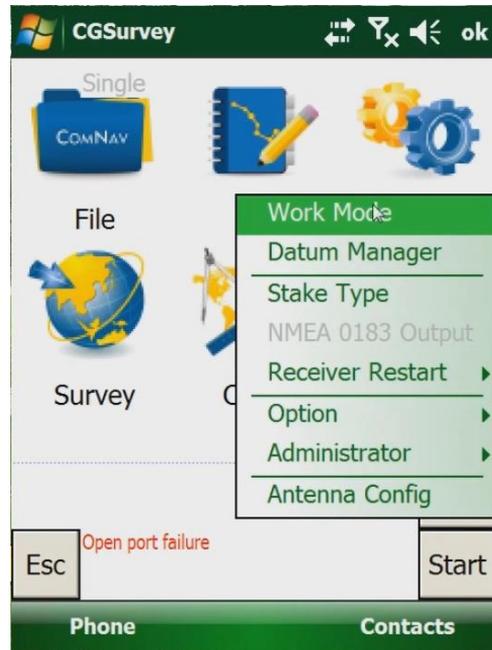


- Create New Project and click ok

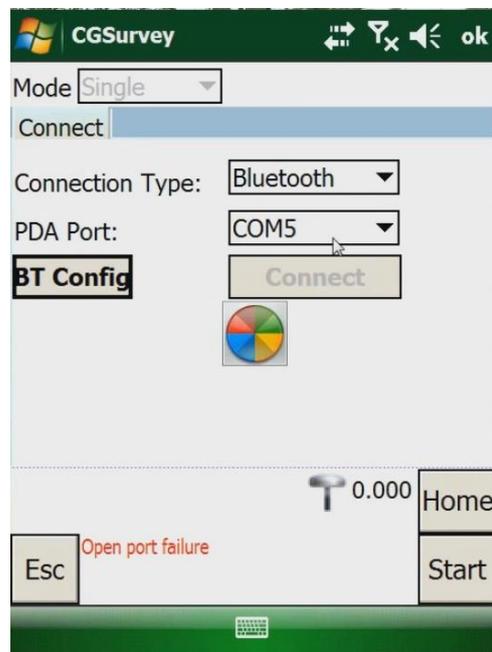


- In main menu, click **Config** and then Work Mode

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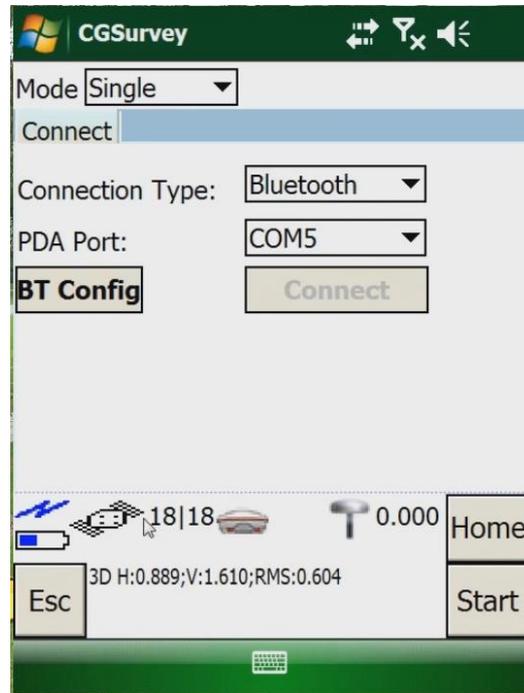
- Connect the Bluetooth with the receiver



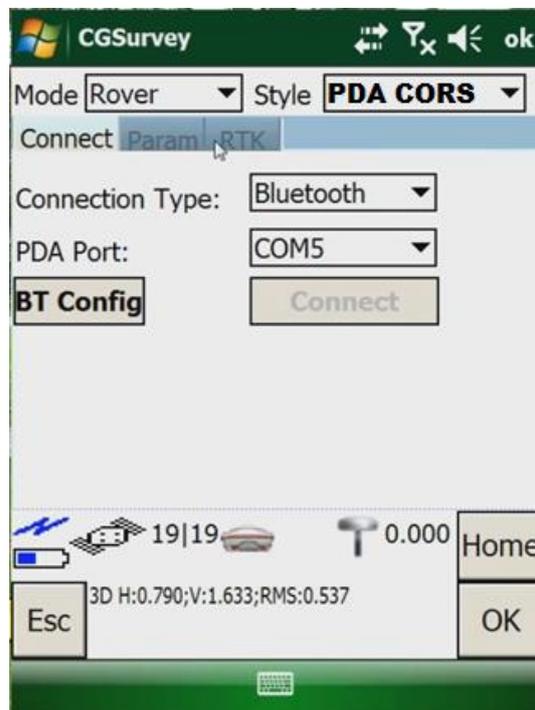
- If it is connected, Parameters will display below



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- Change Mode to “Rover” and Style to “PDA CORS”





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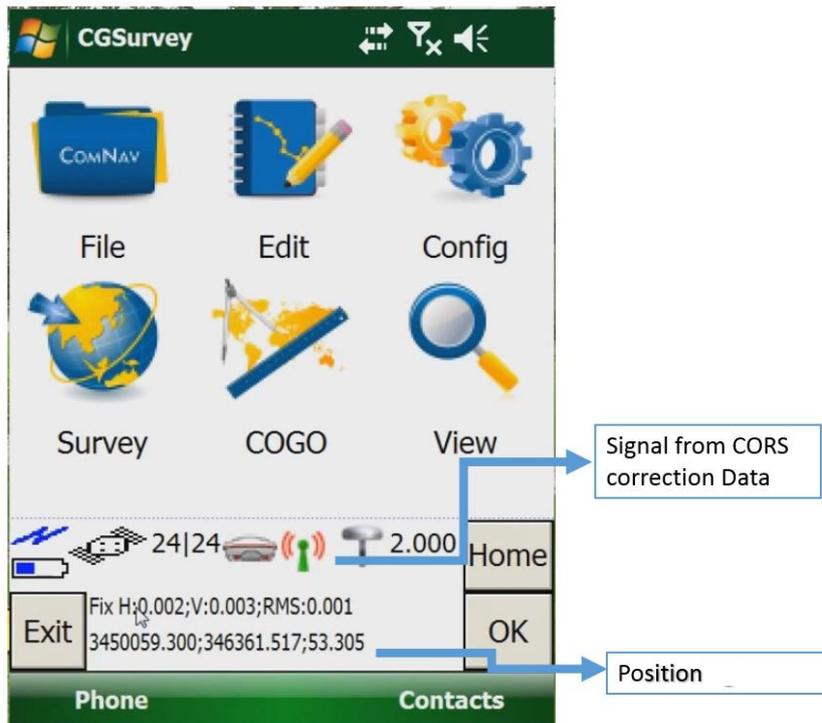
- Input Antenna Height then save



Port:

2101 – single-base RTK

2102 – network-RTK





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