

HAYES INSTRUMENT Co.

502 S CANNON BLVD
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Topcon Robotic Series with Direct Cable Connect Complete Setup Guide for the TDS Ranger

December 05

Concepts— When using the direct cable connect configuration, the data collector controls the instrument directly by cable connect. Aiming and Tracking functions are handled from the instrument.

Total Station Setup— (note: many of the settings below are defaulted correctly)

1. From the main total station menu:

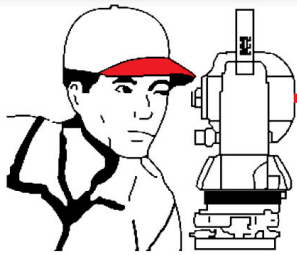
- Select the Para Menu **[F6]**
- Select the Communication Menu **[F2]**
- Select Serial Port RS232C/RC **[F1]**
- Select **<RS232C>** using the **[F3/F4]** keys
- Press Set **[F1]** then YES **[F5]**
- Select Set RS232C **[F2]**
- Verify the following settings:
 - * Baud Rate **[1200]**
 - * Data.L **[7]**
 - * Parity **[Even]**
 - * Stop Bit **[1]**
 - * Delimit **[ETX]**
 - * REC-A/B **[A]**
 - * Protocol **[ON]**
 - * NEZ-REC **[Std]**
 - * TrkState **[ON]**
- Press SET **[F1]** then YES **[F5]**
- Press **[ESC]** back to the main total station menu.



2. From the Main Total Station Menu:

- Press **Std [F2]**





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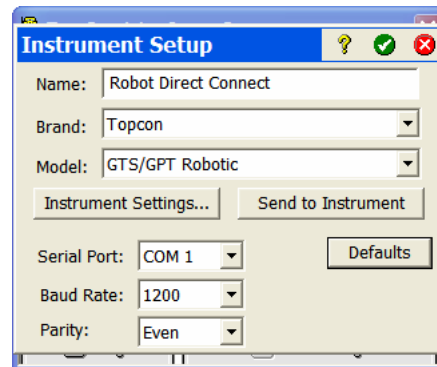
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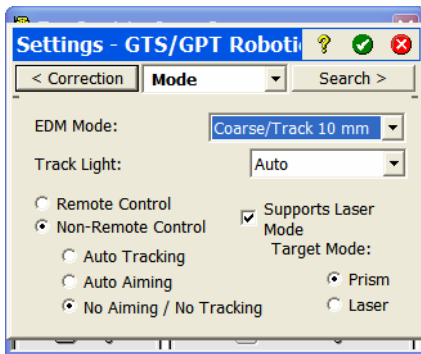


Ranger Setup

1. Run Survey Pro and Open a job for work.
2. Go to **[Job] - [Settings]**
3. Press **[Create New Instrument]**
4. Create an Instrument Profile with the following settings.
 - Name: **Robot Direct Connect**
 - Set the Brand to **<Topcon>**
 - Set the Model to **<GTS/GPT Robotics>**
 - Ignore the Serial port and baud rate settings for now.



5. Press **[Instrument Settings]**



6. Set the EDM Mode: to the desired resolution.
7. Track Light: **Auto**
8. Check the **Non-Remote Control** option.
9. Check the appropriate lock option.

- **Auto Tracking**— Broken do not use this option.
- **Auto Aiming**— will execute an Autolock before measuring the point.
- **No Aiming / No Tracking**— relies on the user to manually execute the track commands (if desired at all) from the total station.

10. Check the Supports Laser Mode if your gun supports prismless mode. The mode can be switched back and forth from Survey Pro.

11. Press the **{Search}** tab at the top of the display.
12. Set Quick Lock: to **OFF**. All other settings on this page are ignored.

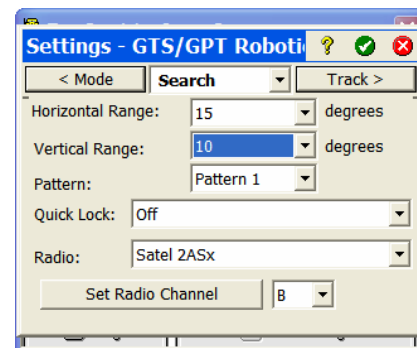
13. The settings on the rest of the tabs are ignored.

14. Press the **[green check]** box at the top of the display to exit to the instrument setting page.

15. Press the **[Defaults]** button. Verify that the Baud rate sets to **1200** and Parity sets to **Even**.

16. Press the **[green check]** box at the top of the display again to exit to the instrument profile page.

17. Press the **[green check]** box at the top of the display again to exit to the Job menu.



You are now connected and ready to begin your survey.

