

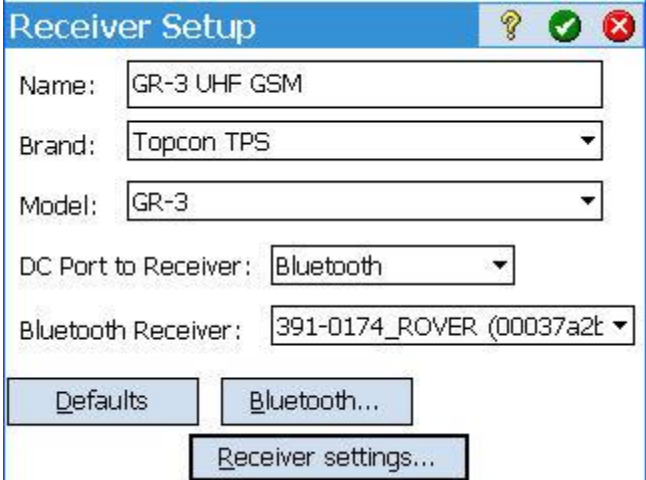
Network Rover GPS Configuration Topcon GR3 GSM w/ Digital UHF

TDS Survey Pro Software Interface

Job → Settings

Create New Receiver Profile

*Note - Receiver Name = Serial #

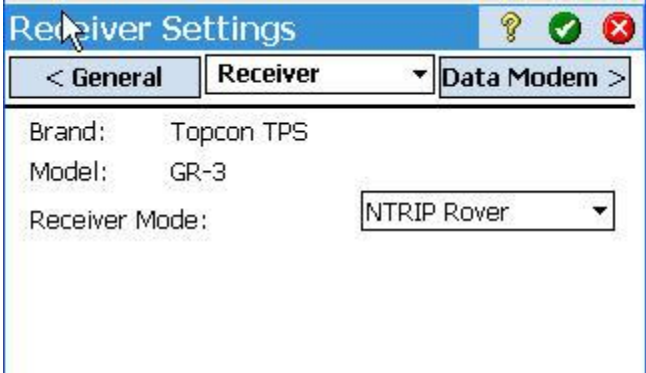


The 'Receiver Setup' dialog box contains the following fields and buttons:

- Name: GR-3 UHF GSM
- Brand: Topcon TPS
- Model: GR-3
- DC Port to Receiver: Bluetooth
- Bluetooth Receiver: 391-0174_ROVER (00037a2t
- Buttons: Defaults, Bluetooth..., Receiver settings...

Select Receiver Settings

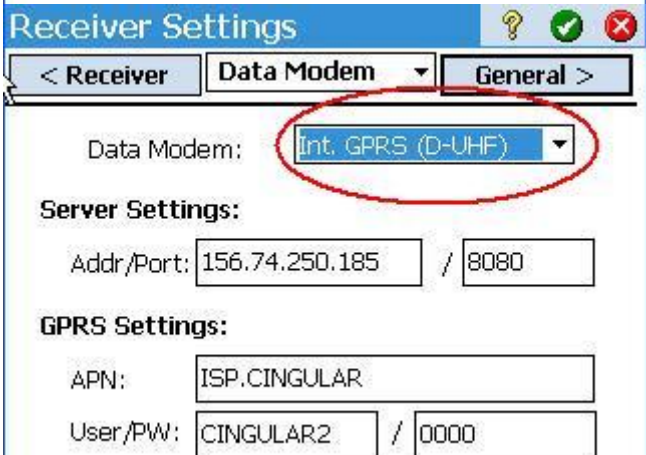
Select Receiver Mode:
NTRIP Rover



The 'Receiver Settings' dialog box, 'Receiver' tab, contains the following fields:

- Brand: Topcon TPS
- Model: GR-3
- Receiver Mode: NTRIP Rover

Select Settings



The 'Receiver Settings' dialog box, 'Data Modem' tab, contains the following fields:

- Data Modem: Int. GPRS (D-UHF) (highlighted with a red circle)
- Server Settings:
 - Addr/Port: 156.74.250.185 / 8080
- GPRS Settings:
 - APN: ISP.CINGULAR
 - User/PW: CINGULAR2 / 0000

Data Modem – Select for GR-3 Radio Type (**D-UHF or FH915+**)

Server Settings – the IP information of your NTRIP server.

- **Addr** – the IP address of the NTRIP server
- **Port** – the IP Port of the NTRIP server

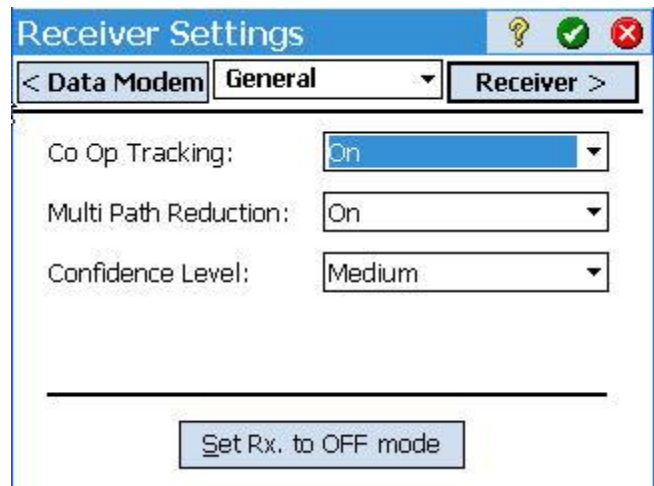
GPRS Settings – the settings to connect to your specific cell network. Get these settings from your cell provider.

- **APN** – the Access Point Name of your specific cell provider
- **User** – the username to connect to your specific cell provider
- **PW** – the password to connect to your specific cell provider

Turn Co Op Tracking to On

Turn Multi Path Reduction to On

Confidence to Medium



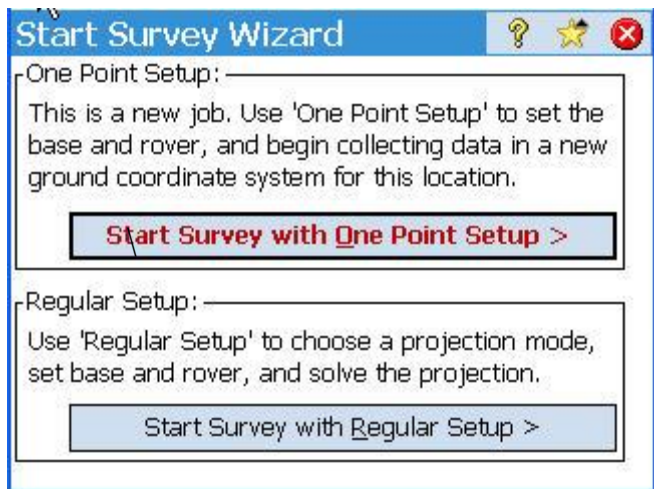
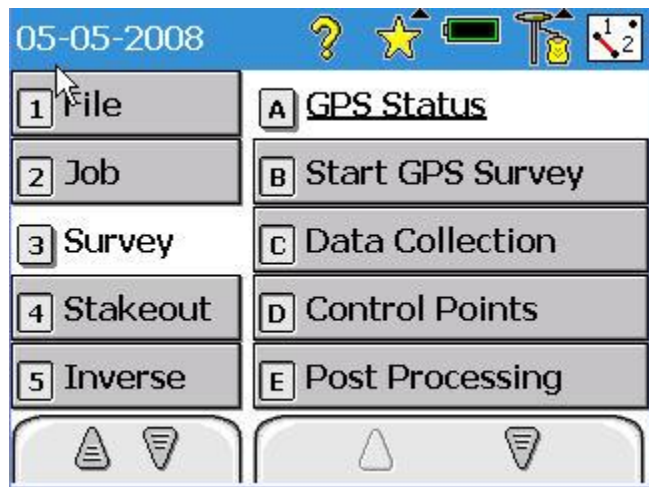
TDS Survey Pro Work Flow

The work flow for using the internal GSM modem to connect to an NTRIP service is the same as that of any NTRIP capable modem. The one difference worthy of mention is the “Connecting to Cell Network...” dialog that is displayed while the internal GSM modem is attempting to connect to the cell network. This dialog will remain up until it successfully connects to the cell network or the user hits [Cancel].

Rover Setup to Connect to Network

Select 'Survey' →

'Start GPS Survey'



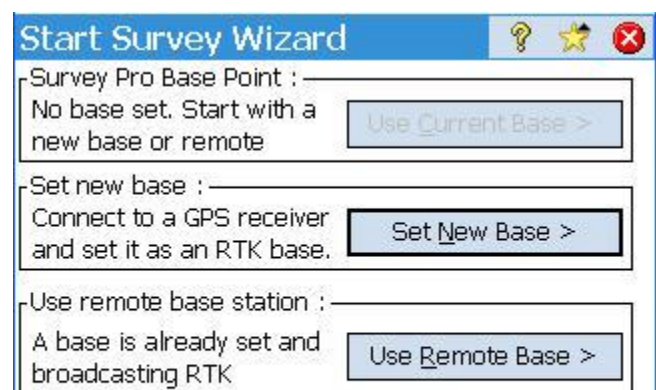
Type Of Survey

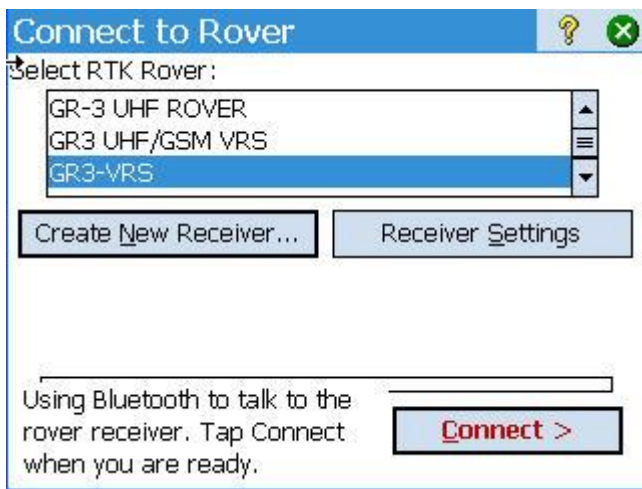
Select Start Survey with One Point Setup

OR

Select Start Survey with Regular Setup
(For Localization or State Plane work)

Select 'Use Remote Base Station'





‘Connect’ to Rover—Highlight Rover Receiver Defined with Network Settings above

Connecting to GPRS Modem / Network

STEP 1---Initializing the internal GPRS modem inside the GR-3

*Note - This step may take a few moments

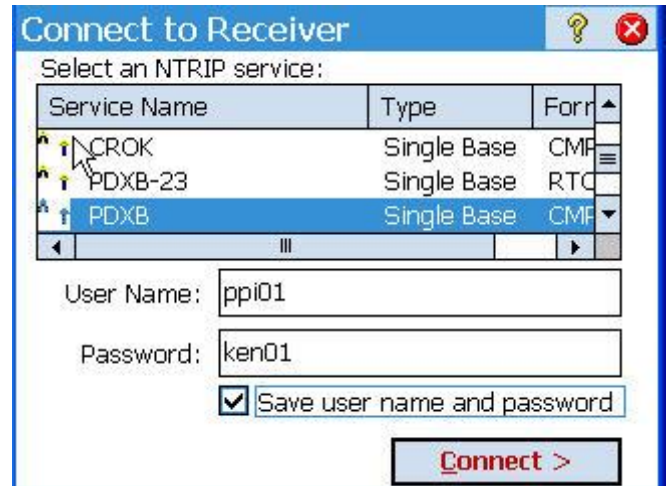


Connect to Receiver (Network Bases)

Select NTRIP/Mount point Service

Enter NTRIP username and password

Connecting to “Service Name”



Select ‘Survey’ →

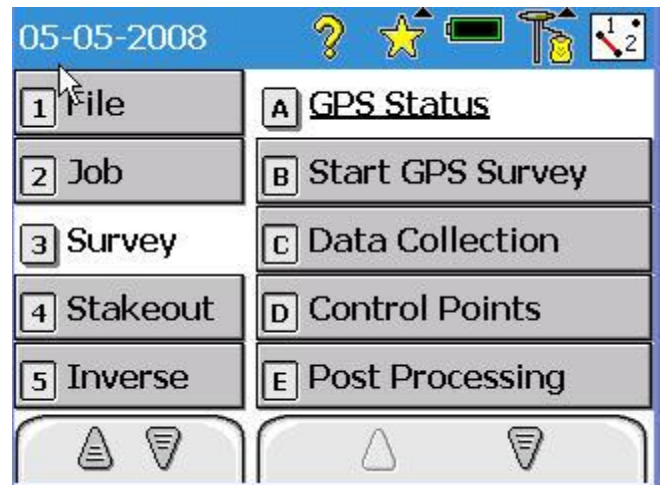
‘GPS Status’

This will display your connection to the Network, and solution quality of the GPS.

Notes and Tips

Notes

- Only NTRIP services are supported with this modem.
- There is currently no software method of determining the signal quality of the cell network. To determine signal quality you will have to remove the SIM card from the GR-3 and put it in a phone.



Known Issues

Unable to get a fix/float solution after using internal GSM module

After successfully connecting to an NTRIP service via the internal GSM module, it may be impossible to get a fix/float solution via *other* RTK methods. When this happens you will get 100% radio link and will receive the base position over the radio but will remain with an autonomous position indefinitely. This issue can be resolved by doing an NVRAM clear using the hardware method or using Topcon's PC-CDU software.

I entered an incorrect password for the NTRIP service and now I can't connect at all

Some NTRIP servers place 'retry' limits on user accounts that will lock out an account if it is accessed with the wrong password too many times. The GR-3 firmware attempts to log onto the service over and over again using the last given username and password information regardless of whether or not it failed on the previous attempt. This could use up your retry attempts in short order and lock you out of your account. If this happens to you, contact your NTRIP service provider to re-enable your account and possibly increase your retry limit. The best thing though is to just get your username and password correct the *first* time.

NOTE: if you enter the wrong username, you may be locking out somebody else's account, so be careful.

Troubleshooting

Cannot connect to the cell network

There are several reasons why this might occur. Check the following:

- Is the SIM card seated properly in the GR-3 (located under the right side battery)?
- Does the GR-3 recognize the SIM card? You can check this out by using Topcon's Modem TPS PC software. If it does not recognize the SIM card, try removing it and putting it back in. If this doesn't work, talk to your cell provider.

- Are the GPRS settings correct in the modem settings page? Make sure this information is correct. If you don't know what these settings should be, get them from your cell provider.
- Make sure you have actually purchased the GSM add-on from your Topcon dealer. If you didn't buy it, it won't work.

Unable to get the NTRIP table

If you are unable to get the NTRIP table after having successfully connected to the cell network, check the following:

- Is the IP address correct in the modem settings?
- Is the IP port correct in the modem settings?