

Leica SmartNet Technical Support Guide

- when it has to be **right**

Leica
Geosystems

Leica SmartNet Technical Support Guide

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I have a GPRS Internet connection and I am connected into SmartNet, however, I sometimes have L2 showing less satellites than L1 for more than a couple of minutes and/or it is taking me a long time to get a fixed solution – Is there anything that I can do?

Scenario 1

Symptom:

There is no Internet connection on my System 1200. This can be seen by the 'lack' of an @ symbol. Note: The @ symbol should appear to the right of the number of L2 satellites on the top toolbar.



Probable cause:

Provided the connection between sensor and mobile is present, then there are two probable causes:

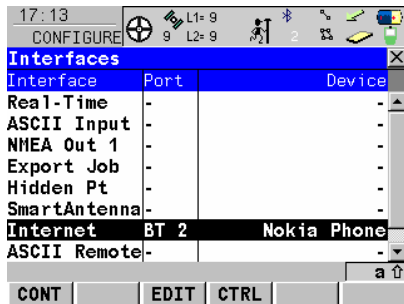
1. The SIM card is not enabled for GPRS packet data, or the mobile network operator is experiencing downtime in your region.
2. The network specific Internet settings need to be reconfigured.

Recommended resolution:

To resolve a SIM card issue please speak to your mobile phone/SIM card provider, or switch to GSM as described in Scenario 2.

The network specific Internet settings are described below:

1. From the System 1200 main menu, enter 5-config, followed by 4-interfaces; in this list highlight the 'Internet' interface line:
For Step 2: Select F3-Edit
For Step 3: Select F4-CTRL



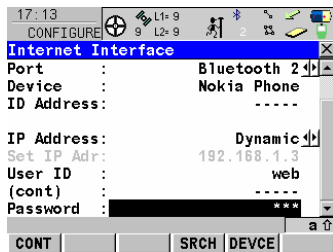
2. In the 'edit' Internet interface screen the user ID and password need to be set as follows:

Network	User ID	Password
Vodafone	web	web
O2	faster	password
T-Mobile	user	wap
BT Mobile	bt	bt

For Orange users please leave the user ID and password blank.

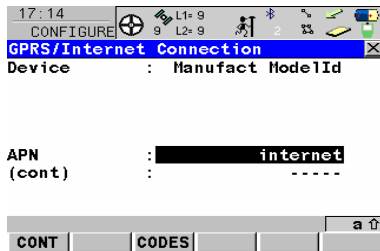
Then press F1-continue to confirm the settings.

Note: These settings are subject to changes by the network operator.



3. In the 'control' GPRS/Internet connection screen the APN needs to be set as:

Network	APN
Vodafone	internet
O2	mobile.o2.co.uk
Orange	orangeinternet
T-Mobile	general.t-mobile.uk
BT Mobile	btmobile.bt.com



Then press F1-cont to confirm the settings.

With these settings entered continue through to the main menu and the “connected to Internet” message should appear, if this setting does not appear power the instrument off and on again.

Scenario 2

Symptom:

GPRS is not currently available, I have heard about a GSM service – how do I access/use this?

Probable cause:

There are a variety of causes for GPRS not being available, including:

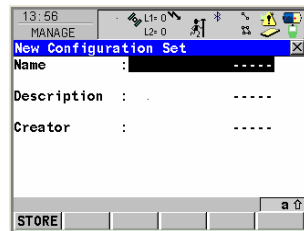
1. The SIM card is not enabled for GPRS packet data.
2. The network coverage in the working area is too weak for a constant GPRS Internet connection.

Recommended resolution:

To switch to a GSM connection change the instrument's current configuration set to a 'SmartNet GSM' one, this is done from 3-manage (from the main menu) followed by 5-configuration sets, then highlight the GSM configuration set and press F1-cont. If the configuration set does not exist, the steps to create it are described below:

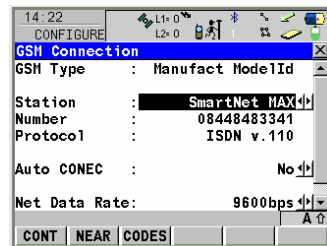
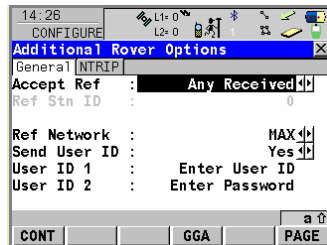
1. From the System 1200 main menu, enter 3-manage, followed by 5-configuration sets, in this list highlight the existing SmartNet enabled configuration and press F2-new, then enter in the desired name for the GSM connection configuration.

On the 'wizard mode' screen press F6-list, followed by F1-store and then with the new configuration set highlighted press F1-cont, to return to the main menu.



2. From the System 1200 main menu, enter 5-config, followed by 4-interfaces, in this list highlight the 'real-time' (or GPS RTK) and press F3-edit, here press F2-rover and set the general page as per the screenshot but with your SmartNet user name and password entered. Then press F6-page and set the NTRIP page to use NTRI – No. Finally press F1-cont to return to the 'real-time mode' page.

3. In the 'real-time mode' screen; set 'r-time mode' as 'rover' and 'data' as 'RTCM 18,19 v2'. Set the 'port' to the one connected to the mobile and make sure the 'device' is set as the phone or GSM/GPRS module. Make sure that 'ref sensor' and 'antenna' are both 'unknown'. Then press F1-cont to confirm these settings. OK or confirm any warning/information messages. You will be returned to the interfaces list.



4. On 'Interfaces', with 'real-time' (or GPS RTK) highlighted, press F4-CTRL. In the GSM connection screen, highlight the 'Station' line and press the red 'enter' key. On the 'Stations to Dial' screen, press F2-new to enter a name and the SmartNet dial-up number; 0844 8483 341 (for Max), with the Protocol set as ISDN v.110. Note: Tel 0844 8483 340 if I-Max was set as 'Ref Network' in .2.

Press F1-store, followed by F1-cont to return to the GSM connection screen (as shown on page 11) then continue through to the main menu to confirm the configuration set changes.

With this configuration set created continue to use the instrument as normal, using 'shift-connect' or a configured hot key to connect to SmartNet.

Scenario 3

Symptom:

I have a GPRS Internet connection and plenty of satellites, but when I connect it says “NTRIP caster does not recognise your privileges”.

Probable cause:

There are two main causes for this problem:

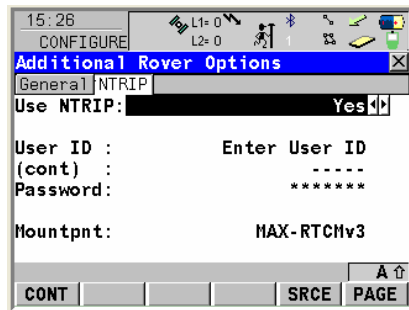
1. The user name and/or password have been entered incorrectly.
2. Your SmartNet account does not allow access to the product being requested.

Recommended resolution:

From the System 1200 main menu, enter 5-config, followed by 4-interfaces, in this list highlight 'real-time' (or GPS RTK) and press F3-edit, followed by F2-rover then F6-page to view the NTRIP page of additional rover options.

On this page both the USER Id and password can be entered/re-entered to ensure that they are correct.

If these details are unknown, or you are certain they are correct, but the error still occurs, then please contact technical support or SmartNet Sales on 01908 246229 or 01908 246262.



Scenario 4

Symptom:

I have a GPRS Internet connection and plenty of satellites, but when I connect it says “The Configured NTRIP source (mountpoint) is not available”.

Probable cause:

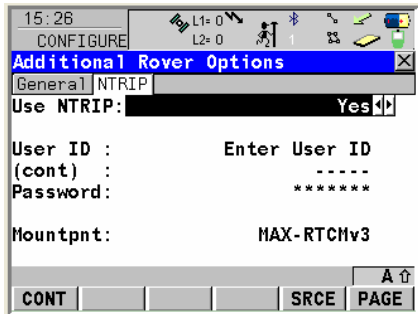
This is because the mountpoint has not been entered, or the entered one is not valid.

Recommended resolution:

From the System 1200 main menu, enter 5-config, followed by 4-interfaces, in this list highlight 'real-time' (or GPS RTK) and press F3-edit, followed by F2-rover then F6-page to view the NTRIP page of additional rover options.

On this page either type in the mountpoint if known or press F5-source to see a list of the available mountpoints, select one of these mountpoints and continue through to the main menu, then connect to SmartNet and continue to work as normal.

If you are unsure which mountpoint you should be using then please contact technical support on 01908 246229.



Scenario 5

Symptom:

I have a GPRS Internet connection and plenty of satellites, however, when I connect it does not say “NET1: successfully connected” or “connected to NTRIP caster” and it does not come up with any error messages either – What do I do?

Probable cause:

This is because the IP address or TCP/IP port is not correct for SmartNet.

Recommended resolution:

The steps to check the IP address and port settings are described below:

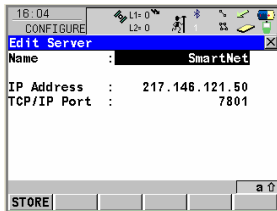
1. From the System 1200 main menu, enter 5-config, followed by 4-interfaces, in this list highlight 'real-time' (or GPS RTK) and press F4-CTRL. In this screen try to select the server as one with;

- IP address: 217.146.121.50
- TCP/IP Port: 7801 (*This is for SmartNet*)

Note: SmartNet Ireland uses: IP: 217.146.121.30 & TCP/IP: 7808

If such a server does not exist then it needs to be created...

2. Highlight the 'server' line and press the red 'enter' key on the 'server to connect' screen press F2-new. Enter a 'name' for the server, followed by the 'IP address' and 'TCP/IP port' then press F1-store, followed by F1-cont three times to return to main menu, then connect to SmartNet and continue to work as normal.



Scenario 6

Symptom:

I have satellites, a position and a GPRS connection; I've connected to the NTRIP caster, I have an autonomous position but my 'corrections lightning arrow' is not moving so my position status is staying at the autonomous level 🚦.

Probable cause:

As you have connected to the NTRIP caster with no error messages – and no corrections are coming through then it could be caused by the selected data format.

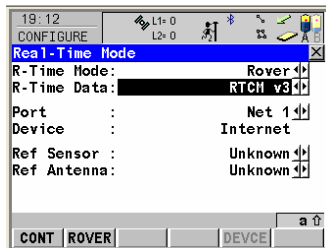
Recommended resolution:

The following outlines how to select the data format for the SmartNet corrections:

From the System 1200 main menu, enter 5-config, followed by 4-interfaces, in this list highlight 'real-time' (or GPS RTK) and press F3-edit to display the 'real-time mode' screen.

On this page the R-Time data can be selected – for most SmartNet corrections it will need to be RTCM v3.


If the required data format is unknown then the name of the mountpoint (Scenario 7 describes how to see this) will normally contain the required RTCM version.



If you have doubts about the required RTCM format please contact technical support on 01908 246229.

Scenario 7

Symptom:

I have satellites, a position and a GPRS connection; I've connected to the NTRIP caster, my 'corrections lightning arrow' is pulsing... but my position status appears to be 'stuck at halfway' i.e. there is a code solution available and the following symbol is displayed .

Probable cause:

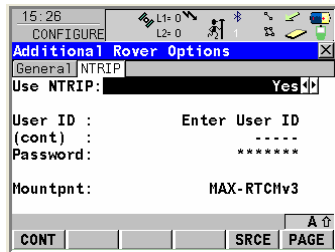
It appears that there could be a delay in the corrections coming through or an issue with the Internet connection, as such the ambiguities are not being able to be fully resolved.

Recommended resolution:

The best way to resolve this is to refresh the mountpoint, this essentially resends the settings through to the Internet connection.

From the System 1200 main menu, enter 5-config, followed by 4-interfaces, in this list highlight 'real-time' (or GPS RTK) and press F3-edit, followed by F2-rover then F6-page to view the NTRIP page of additional rover options.

On this page make a note of the current mountpoint then press F5-source to see a list of the available mountpoints, make sure the same mountpoint as shown on the previous screen is highlighted and continue through to the main menu, then connect to SmartNet and continue to work as normal.



Scenario 8

Symptom:

I have a GPRS Internet connection and am connected into SmartNet, however, I sometimes have L2 showing less satellites than L1 for more than a couple of minutes and/or it is taking me a long time to get a fixed solution – Is there anything that I can do?

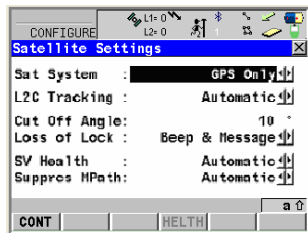
Probable cause:

This could be caused by a number of reasons, one of which is that there is simply a poor satellite constellation where you are working. Unfortunately there is nothing that can be done to resolve this. However, it is possible that this symptom is being caused by a L2C tracking setting.

Recommended resolution:

Not all instruments will have this setting, although the following steps show how to find this setting and how to modify it:

1. From the System 1200 main menu; enter 5-config, followed by 2-instrument settings. This will display the instrument menu. Select 2 satellite settings...
2. From the satellite settings screen set the L2C tracking to 'automatic' rather than 'always'. Then F1-cont to return through to the main menu, then power the instrument off and on again.



Note: This setting is only available for certain instruments:

GX1230 (serial numbers > 465000)/ ATX1230 (serial number > 160000)/ GX1230 GG/ATX1230 GG.

SmartNet Information and Support Contacts

For additional information about SmartNet visit
<http://smartnet.leica-geosystems.co.uk>

For downloads of the latest firmware and application versions visit
www.leica-geosystems.co.uk

If you need to contact technical support please use the following details:

Phone: 01908 246229

Email: uk.support@leica-geosystems.com

Please note: Subscribers to SmartNet can receive status updates directly via email and/or SMS text message; in order to register to receive these updates contact technical support on the contact details above with your email address and mobile phone number.



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