

SiReNT RTK & DGPS  
User Guide FAQ for smallTRIP QUAD  
Last updated on: September 2008

The smallTRIP unit delivers correction data to GPS rovers through mobile Internet (GPRS) in the form of RTK or differential-GPS. Streams of correction data can be in many different formats (RTCM, CMR). smallTRIP units uses Ntrip-protocol for communication with Ntrip casters or it can connect directly to a HTTP-stream from an Internet connected reference station.

Today the smallTRIP units are used in Europe, Asia and the US on different Ntrip casters and tested with many different GPS rovers.

Another feature of the unit is GSM-modem connection to a modem-based reference station. The smallTRIP unit is configured through SMS messages or via various PC applications. It is also possible to receive status information from the unit as SMS messages.



Furthermore the smallTRIP version named smallTRIP+GPS is delivered with an Internal GPS receiver (20 Channel, High Sensitivity) in order to make the connection between the smallTRIP unit and the GPS rover easy in cases where the GPS rover does not output GGA-NMEA strings. The smallTRIP +GPS version is also an excellent choice when the Ntrip functionality is to be combined with radio links.

What data format does smallTRIP QUAD supports?

smallTRIP supports all the data formats broadcasted by SIRENT.

How do I configure smallTRIP QUAD to work with SiReNT RTK or DGPS?

smallTRIP QUAD is configured by sending a configuration string. Configuration strings can be send as SMS messages directly to the smallTRIP unit (its telephone number), which must be done before the unit is used. Naturally the unit can be reconfigured by sending a new configuration string.

When you wish to reconfigure the unit, you have to force the unit into pause-mode.

Pause-mode is initialized by pressing the front key for approximately 2 seconds.

The following is a description of a configuration string, which is to be send:

[TEXT-OPTION] CONFIG,NTRIP,[COMSPEED],[GPRS-CONTEXT],[GPRS-USERID],[GPRSPASSW],[URL:PORT],[USER:PASSWORD], [CRITERIA]

**COMSPEED** = Communication speed on the serial port for outgoing RTCM/ DGPS [4K8, 9K6, 19K2, 38K4 or 57K6]. Normally [9K6].  
**The communication speed of the smallTRIP unit should be the same as the GPS rover speed.**

**GPRS-CONTEXT** = Network parameter for GPRS APN gateway, are setup according to the GSM mobile phone provider demands.

For more information on Network parameter please refer to: Tele\_GPRS provider settings.txt on [www.rtkcorrect.com](http://www.rtkcorrect.com)

**GPRS-USERID** = Network parameter for GPRS "Connection user name"

**GPRS-PASSW** = Network parameter for GPRS "Connection password"

**URL:PORT** = The URL(or IP-address) and port number for the Ntrip Caster, can look like:

<http://www.sirent.inlis.gov.sg:2101> or <http://160.96.97.248:2101>

**USER:PASSWORD** = Username and password from the supplier of correction data. Sometimes only your e-mail address is used.

**TEXT-OPTION** = This TEXT-OPTION can be used by SMS configuration and administration. It is possible to create, save and administrate several SMS configuration messages in the mobile phone, with each own significant identity.

**CRITERIA =**            **MOUNT:** Mount-point (name of source) you want to connect to (receive RTCM from).

**SKIP-TABLE:** Tell the smallTRIP unit, not to download the source-table from Internet, but go directly to the specified mount-point.

**NEED-GGA:** Define that the mount-point specified need to receive your rover-GPS rover NMEA-position.

**SKIP-NMEA:** Only for use while running tests. The smallTRIP unit will log on to the source (ref. station) without a GPS rover connected to it.

**PLEASE NOTE:**

You must always have seven pieces of “,” data field delimiter characters in a configuration string – also if some of the fields are empty.

Example of configuration string for SIRENT (DGPS 2.3) via sms:

[CONFIG,NTRIP,9K6,APN,,<http://160.96.97.248:2101>,SIRENT-user:SIREN-password,MOUNT:SIRENT-DGPS23,SKIP-TABLE,NEED-GGA](#)

Example of configuration string for SIRENT (DGPS 2.3) via hyperterminal:

[\\$PSLL,CONFIG,NTRIP,9K6,APN,,<http://160.96.97.248:2101>,SIRENT-user:SIREN-password,MOUNT:SIRENT-DGPS23,SKIP-TABLE,NEED-GGA](#)

For more information it is possible to download the user guide from the [www.rtkcorrect.com](http://www.rtkcorrect.com)

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