

Intuicom[®]

RTK Bridge-M[™] Installation Guide

**For
Trimble[®] AgGPS[®] 252 and 262**

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1 Overview

The Ag 252/262 receiver is typically configured to accept CMR format RTK corrections from an Intuicom RTK Bridge-M which in turn has been configured to connect to a GPS/GNSS reference network. The intended audience for this document is a dealer or integrator familiar with the Ag 252/262 and generally familiar with the Intuicom RTK Bridge-M. The Intuicom RTK Bridge-M User Guide covers the steps necessary for its configuration.

2 Requirements for Installation

2.1 Required Information

In order to operate an Intuicom RTK Bridge-M, you are required to have the necessary information to access and log in to the Real-Time Network. This information is entered into the RTK Bridge-M and stored in a profile. More details on setting up an RTK Bridge-M is available in the RTK Bridge manual.

- IP address
- TCP port
- NTRIP mount-point name
- username and password for access to the real-time GPS/GNSS network

2.2 Required Equipment

2.2.1 Intuicom Equipment and Accessories

1. Intuicom RTK Bridge-M with activated data provider account (Verizon, AT&T, etc...)
2. Intuicom RTK Bridge-M to Ag 252/262 data/power cable:
[P/N: FIP4-MRTKCAB-DD15]
3. Intuicom RTK Bridge-M Cellular/GPS antenna/cable:
[P/N: FIP4- FIP4-MMDM-MAX (magnetic mount)]

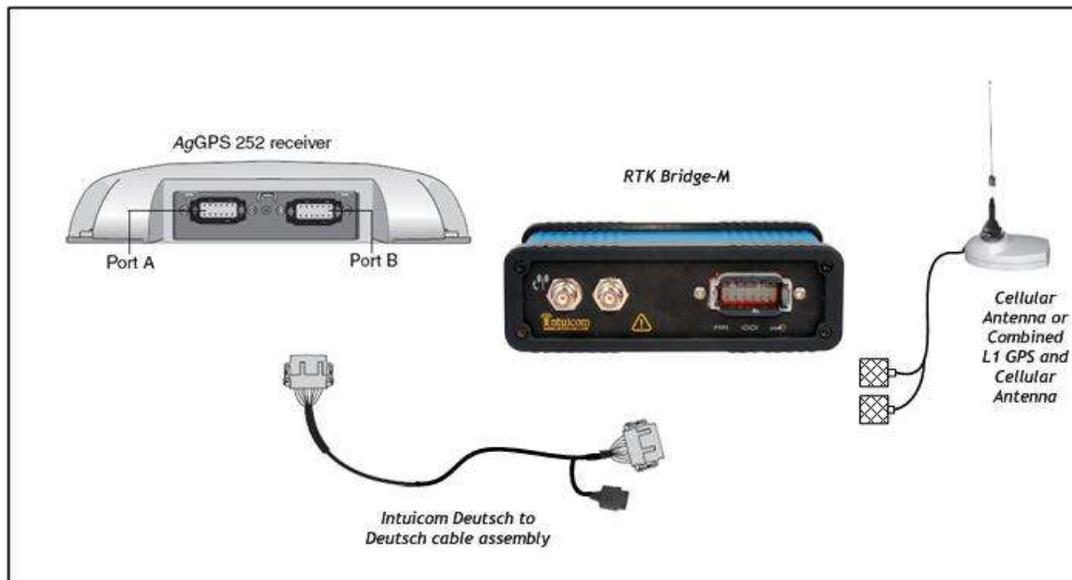
2.2.2 Other Equipment and Accessories

4. PC with serial port and Trimble AgRemote Software
5. Trimble Ag252/262 receiver with RTK (CMR) option enabled and Port B available
6. Trimble Ag 252/262 Data Cable (50166) and source of power for Ag252/262 (or any cabling system typically used to run Trimble AgRemote for configuration)

3 Installation Instructions

Below is the installation Diagram for the recommended installation of the Intuicom RTK Bridge-M Utilizing the equipment noted above.

Diagram 1



3.1 Configuration

- Configure the Intuicom RTK Bridge to connect to GPS/GNSS Reference network and obtain CMR/CMR+ correction data stream from an appropriate single reference station, or as a VRS.
- Configure the resulting RTK correction data to be output front data port at a known baud rate (a baud rate of 38400 is recommended).
- Confirm GPS and cellular antenna (typically a combined antenna with two coaxial cables with TNC connectors) are connected and placed where they have good sky view and good cellular signal.
- Independently confirm the RTK correction data stream from the data port on the front of the unit. This can be accomplished by viewing data output from the data port into any terminal emulation software (ie. HyperTerminal) and RTK Bridge Programming Cable. Details can be found in the Intuicom RTK Bridge-M User Guide.

- Configure the pin-out on the Deutsch connector on the RTK Bridge-M to Ag252/262 data/power cable to match the appropriate pin-out. See Pin-out Diagram 1

Pin-out Diagram 1

Deutsch	Cable Color	Signal	AG 252/262 B-Port (Port C)
1	Red	Power	10
2	Black	Power GND	11
3	Brown	Signal GND	5
4	White	Xmit (to RTK Bridge from remote device)	6
5	Green	Receive (from RTK Bridge to remote device)	8

- Using the Intuicom RTK Bridge-M to Ag252/262 data/power cable, connect the RTK Bridge-M data port to the B Port on the Ag252/262.
- Connect setup data/power cabling to the Ag252/262 Port A and a serial port on a PC running AgRemote. Apply power and connect to the Ag252/262 with AgRemote.
- Using AgRemote, configure the Ag252/262 receiver to receive RTK corrections in the CMR format from Port C at a baud rate of 38400:
 - The FIP4-RTKCAB-UNF2 cable plugs into port B on the Ag252/262. However, there are 2 serial port pinouts available on port B (labeled B & C). For this application, port C is used.
 - Configure DGPS Options – select the source as RTK

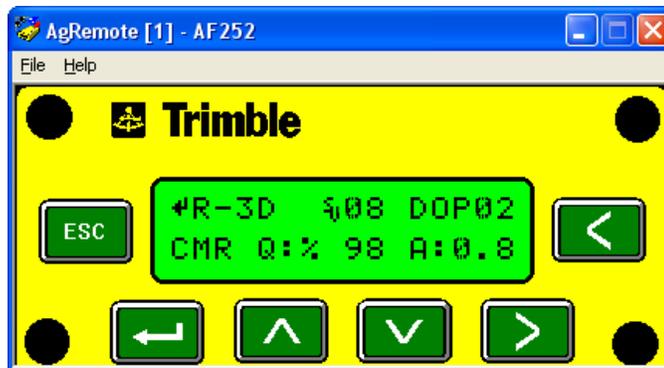


- Configure Port C – configure the input format to be “CMR” or “RtkLnk” at a baud rate of 38400.





- Confirm operation – Confirm the Intuicom RTK Bridge-M is correctly configured and its antennas are connected and within cellular coverage. The main status view in AgRemote should report that it is receiving RTK corrections.



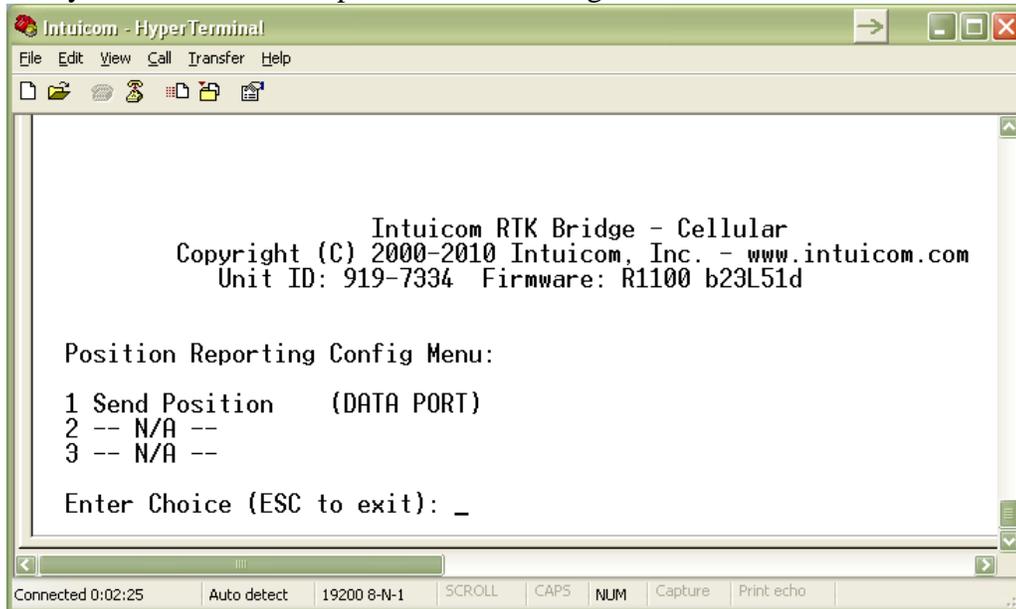
You have now demonstrated that the AgGPS 252/262 is receiving corrections and fixing position. This confirmation of Fixed RTK operation can also be visualized by a solid GREEN LED on the roof-mounted AgGPS252/262 (opposite the Ports location).

4 Sending the GPS position from the Ag252/262 to the RTK Bridge

Below is a description of how to configure the RTK Bridge and Ag252/262 to use the GPS position from the Ag252/262.

4.1 RTK Bridge–M setup

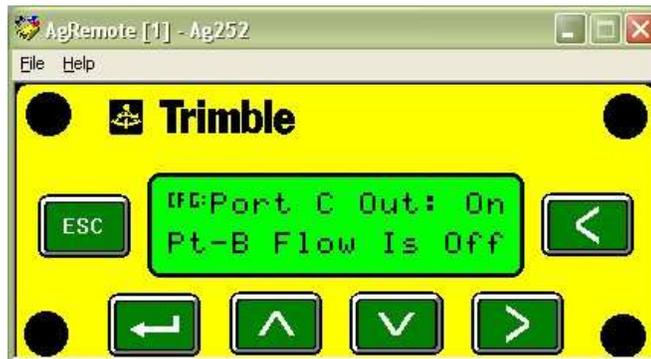
The RTK Bridge–M must be configured to receive the GPS position from the data port. In the Profile Configuration menu, select ‘Positioning,’ the RTK Bridge will display the Positioning Sub-Menu. Press ‘1’ until positioning type is ‘DATA PORT.’ The RTK Bridge is now ready to receive the GPS position from the Ag 252/262.



4.2 Ag252/262 setup

There are several settings that must be configured on the Ag252/262 to send the GGA string to the RTK Bridge–M.

- Navigate to the Port C Configuration page in Ag Remote.
- Scroll down to Port C Out:
 - Set to On



- Scroll down to the page where the Input was configured before
 - Set the O (output) to NMEA with a Baud Rate of 38k4



- Scroll down to the NMEA1 screen
 - Enable the GGA string (CAPS is enabled)



The Ag252/262 should now be configured to send the GGA string to the RTK Bridge-M.