

Intuicom[®]

RTK Bridge-M[™] Installation Guide

For

Trimble[®] FMX

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1 Overview

The FMX 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 FMX and access to the Set-up menus as well as general familiarity 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 mountpoint 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, ATT, etc...)
2. Intuicom RTK Bridge–M to FMX data/power cable:
[P/N: FIP4-MRTKCAB-DD6]
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 FMX receiver with RTK (CMR) option enabled and Port D available

2.3 Required Tools

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

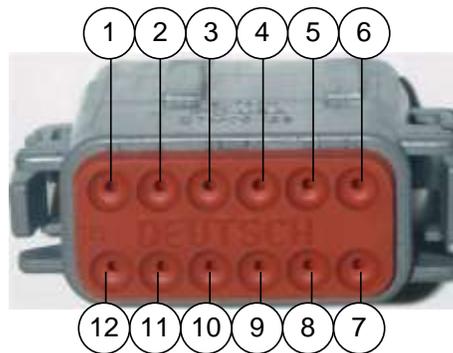
- Configure the Intuicom RTK Bridge-M to connect to GPS/GNSS Reference network and obtain CMR/CMR+ correction data stream from an appropriate single reference station, or as a VRS.
- Configure the resulting RTK correction data to be output front data port at a known baud rate (a baud rate of 38400 is 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 pinout on the Deutsch connector on the RTK Bridge–M to FMX data/power cable to match the appropriate pin-out. See Pin-out Diagram 1

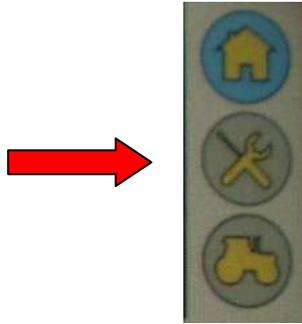
Pin-out Diagram 1

Deutsch	Cable Color	Signal	FMX D-Port
1	Red	Power	9
4	Green	Receive (from RTK Bridge to remote device)	3
5	White	Xmit (to RTK Bridge from remote device)	4
7	Black	Ground	10
9	Brown	Signal GND	5

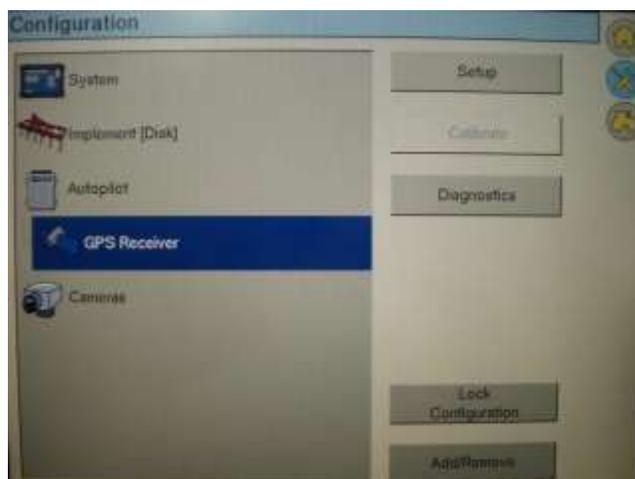
Deutsch connector (DTM06-12S) pinout



- Using the Intuicom RTK Bridge–M to FMX data/power cable, connect the RTK Bridge–M data port to the D Port on the FMX.
- Apply power and connect to the FMX
- Using the touchscreen on the FMX, enter the configuration screen by selecting the “tools” button.



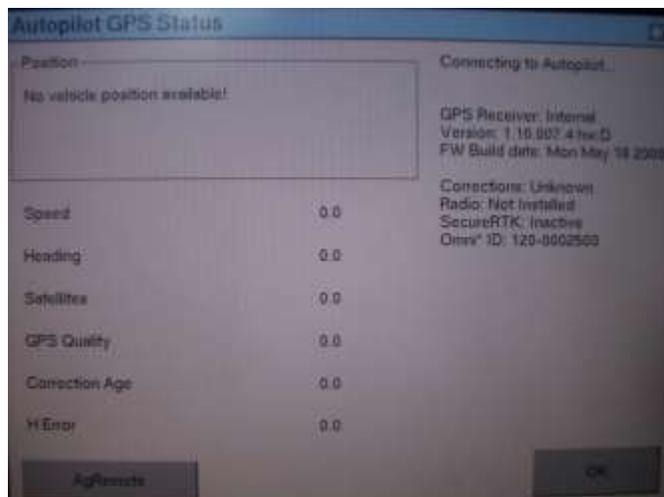
- Once you are in the “CONFIGURATION” menu, select the GPS Receiver button:



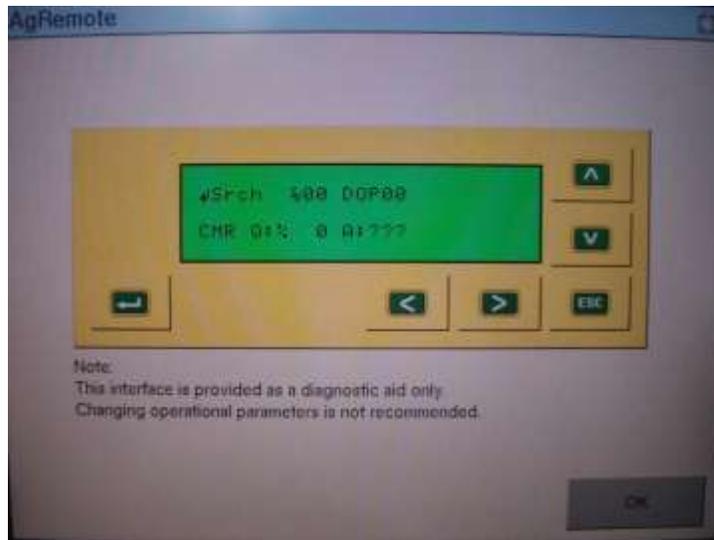
- Select the Set-up tab and confirm the GPS is set to receive RTK and then exit back to main configuration page.



- On the main configuration page, select the “diagnostics” button. From the diagnostics screen, select the “AgRemote” button on the lower left.

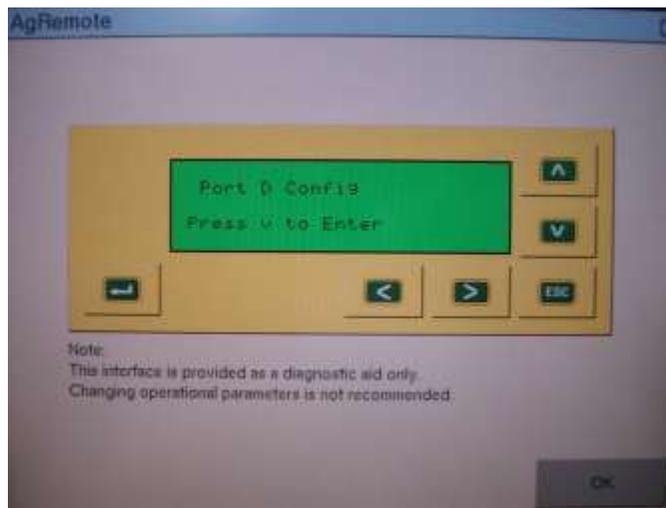


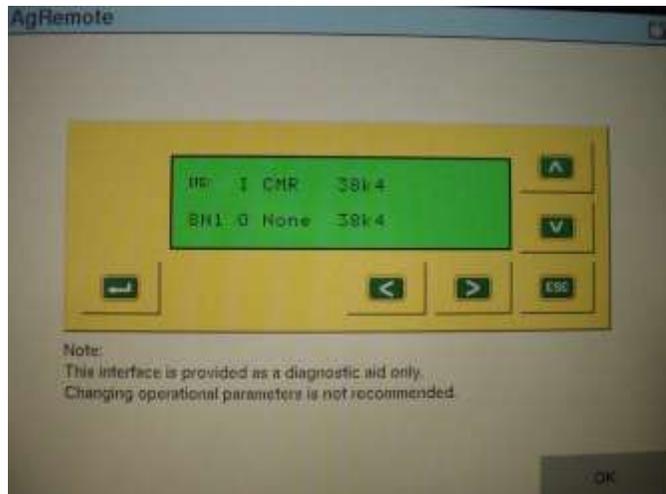
- Once in AgRemote toggle through the screen using the up/down arrows and the right/left arrows.



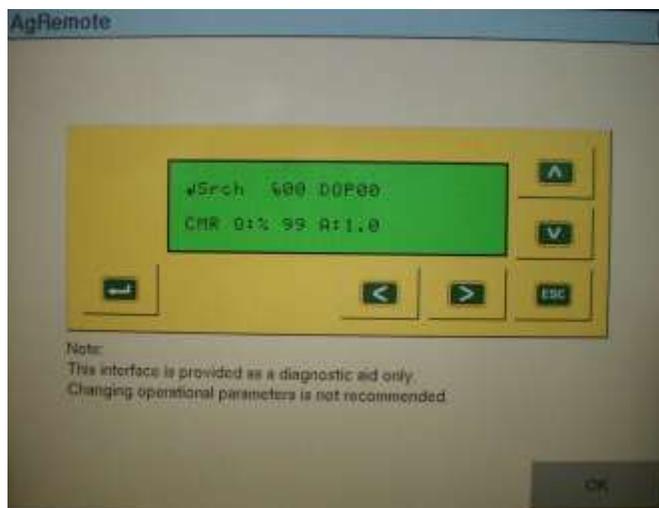
Main Screen on AgRemote

- Using AgRemote, configure the D Port on the FMX receiver to receive RTK corrections in the CMR format from Port B at a baud rate of 38400:





- Confirm operation – Confirm the Intuicom RTK Bridge–M 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 FMX is receiving corrections and fixing position.

