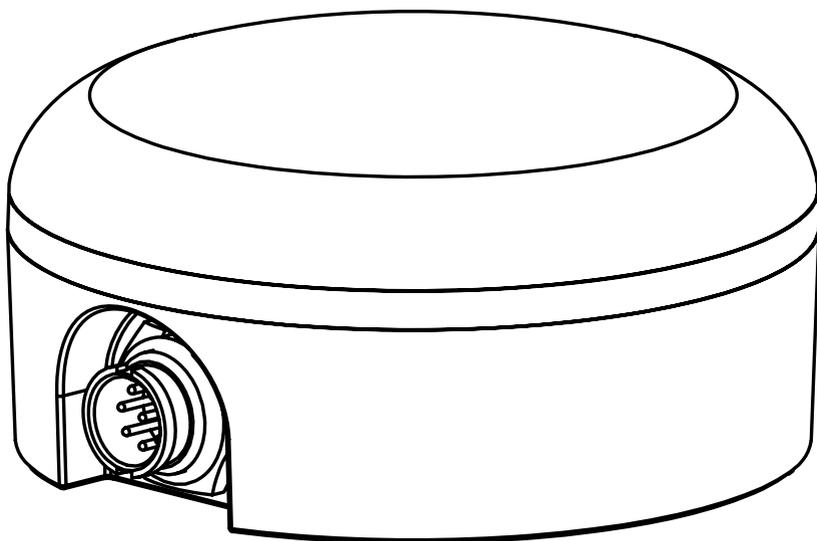




MMGPFFMAE012

# FARMNAVIGATOR



## GNSS RECEIVERS INSTALLATION MANUAL

# 1. Technical specifications

- Dimensions:  $\varnothing$  98 mm x H 50 mm
- Weight: 240 g without power cable
- Supply voltage: 10-35 Vdc
- Power consumption: 0.8 W or 1.5 W\*
- Power cable: 4 m Conxall to DB9
- Built-in magnets for easy mounting
- Operating Temperature: -20 °C / +60 °C
- Storage Temperature: -30 °C / +80 °C
- Waterproof: IP67
- RS232 baud rate: configurable
- RS232 protocol: NMEA0183 configurable (GGA, GLL, RMC, GSA, GSV, VTG, ZDA, GST)

\*for All in One RTK

	Turtle Smart	Turtle Pro2	Turtle RTK	All in One RTK
<b>FEATURES</b>				
GPS	✓	✓	✓	✓
Glonass	✓	✓ <sup>1</sup>	✓	✓
Galileo	✓	✓	✓	✓
Beidou	✗	✓ <sup>1</sup>	✓	✓
SBAS	✓	✓	✗	✓
Multi-band	✗	✗	✓	✓
Update rate up to	10Hz	10Hz	10Hz	10Hz
Baud rate	9600	9600	115200	115200
RTK	✗	✗	✓	✓
Pass-to-pass accuracy	+/- 30cm	+/- 15cm	+/- 2cm	+/- 2cm
Terrain compensation	✗	✓	✓	✓
NTRIP client	✗	✗	✗ <sup>2</sup>	✓
Cellular modem	✗	✗	✗ <sup>2</sup>	✓
1 Year of Internet services included	✗	✗	✗	✓ <sup>3</sup>
<b>ACTIVITIES</b>				
Weeding	✓	✓	✓	✓
Manuring	✓	✓	✓	✓
Harrowing	✓	✓	✓	✓
Seeding	✗	✗	✓	✓
Plowing	✗	✗	✓	✓
Strip-till	✗	✗	✓	✓
Planting	✗	✗	✓	✓

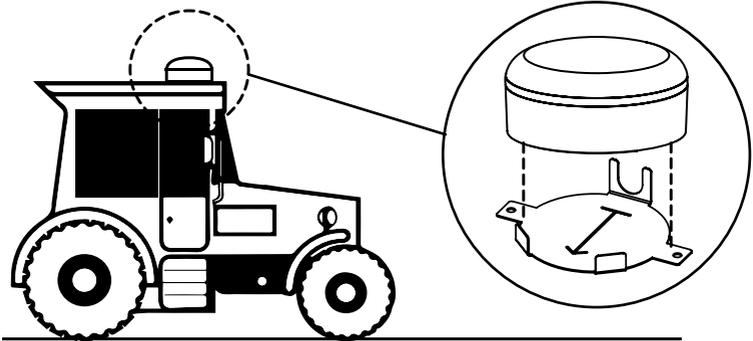
<sup>1</sup> Glonass and Beidou are not concurrent

<sup>2</sup> Only through G7 Plus Farmnavigator

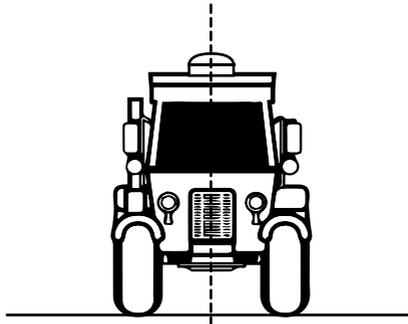
<sup>3</sup> Refer to page 6 for list of countries where Internet services are included

## 2. How to properly install the receiver on the tractor

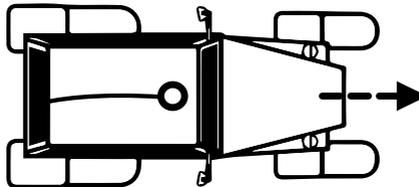
In order to achieve the highest accuracy, the receiver must be installed following the instructions below. This is requested for models embedding a fully inertial platform able to provide accurate dynamic vehicle information and precise terrain compensation (Turtle Pro2, Turtle RTK, All in One RTK). In case of special applications and installation on implements, follow the instructions in the dedicated manual.



1. On the roof of the tractor, horizontally, using the Steady Steel Bracket\*\* to avoid vibrations



2. In the center of the cabin.



3. The connector for power cable must be oriented opposite to the driving direction.

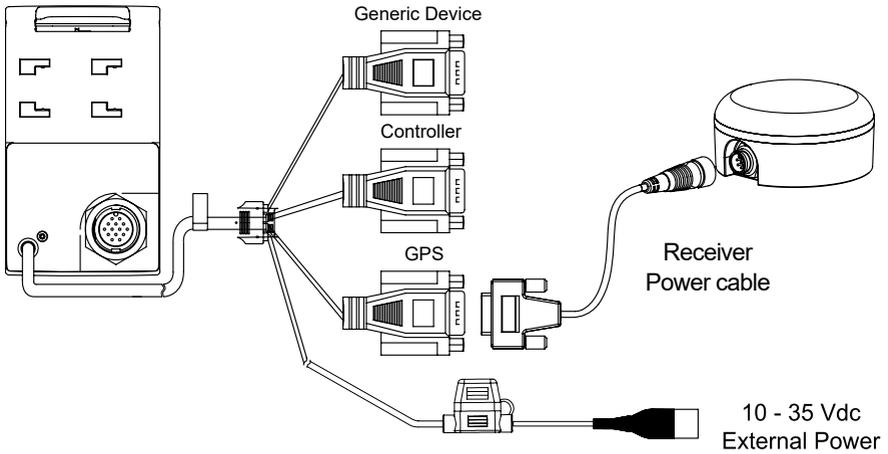
\*\* Provided along with Turtle Pro2, Turtle RTK, All in One RTK

### 3. How to use the receiver with Farmnavigator products

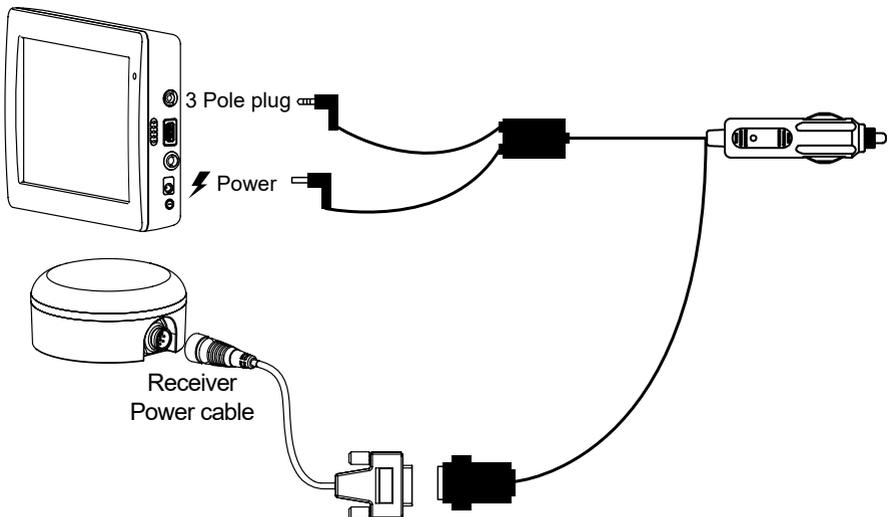
Connect the power cable to the Farmnavigator's "GPS" connector and you are ready to use your receiver.

Follow the instructions available in the Farmnavigator's user manual in order to check the satellite signals on your G7 Farmnavigator.

#### 3.1 G7 Farmnavigator series connection scheme



#### 3.2 G6 Farmnavigator\* connection scheme



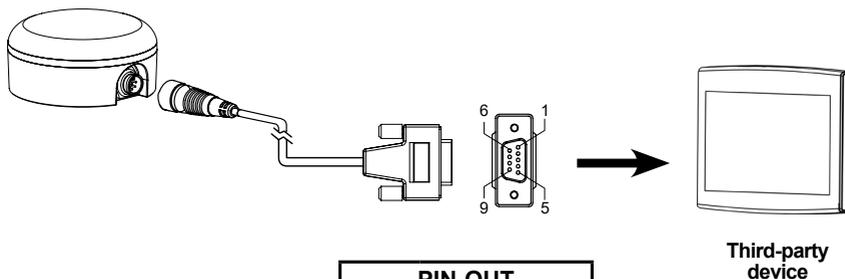
Images are for illustrative purposes only and can differ from the real product.

## 4. How to use the receiver with third-party devices

The receiver can be used with any third-party device compatible with serial communication and NMEA 0183 messaging (RS232 protocol).

### 4.1 Third-party devices connection scheme

To connect the receiver to a third-party device, simply connect your device to the DB9 connector end of the power cable according to the Pin-Out presented below.



PIN-OUT	
PIN n°	Function
2	GPS TX
3	GPS RX
4	GPS VCC
5	GPS GND

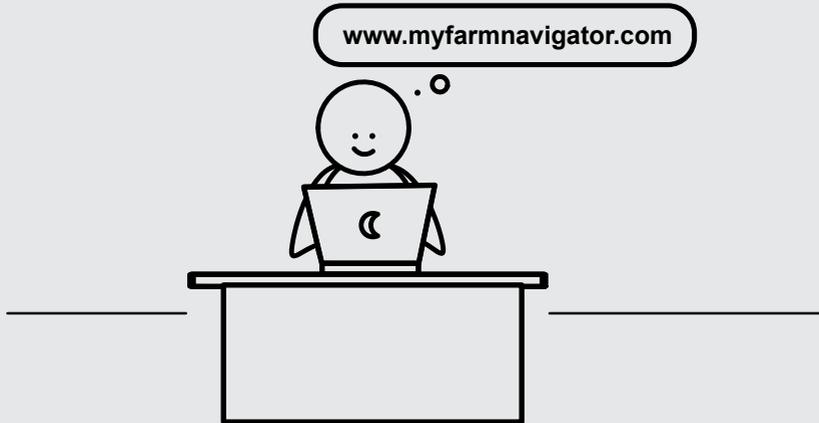
### 4.2 NMEA Baud rate

Farmnavigator GNSS receivers can output standard NMEA messages at different baud rates. The default setting is at 115200 bps which is the most commonly used by third party displays. For any other specific setup, please refer to your distributor/reseller or to [www.farmnavigator.com](http://www.farmnavigator.com).

## **How to activate All in One RTK**

### **A. Register All in One RTK to get instant access to Internet services**

In order to register your All in One RTK, access [www.myfarmnavigator.com](http://www.myfarmnavigator.com) website and complete the registration in few simple steps. Once it has been registered successfully, your All in One RTK starts sharing information with the remote server.



### **B. List of countries where the Internet services are supported**

Andorra, Austria, Belgium, Bulgaria, Cyprus, Croatia, Denmark, Estonia, Finland, France, Greece, Germany, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Czech Republic, Romania, UK, Spain, Slovakia, Slovenia, Sweden, Switzerland.

Contact [support@avmap.it](mailto:support@avmap.it) for info about Internet services in other countries.

### **C. NTRIP client**

The NTRIP Client is the software element used by the receiver to get the RTK correction from the Internet. The NTRIP client can be configured directly through the G7 Farmnavigator (refer to its user manual for detailed instructions) or with a PC, using AvMap's All in One RTK configuration cable kit and the RTK Terminal software provided along with it (details available in the All in One RTK configuration cable kit quick guide).

In both cases you will need these mandatory data about your RTK service provider:

- IP
- Port
- Username
- Password
- Mountpoint

Please refer to your distributor/reseller for NTRIP client specific setup.

## 5. Simplified EU declaration of conformity

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Hereby, AvMap Srlu, Viale Zaccagna, 6 54033 Carrara (MS), Italy declares that the radio equipment in the following table is in compliance with Directive 2014/53/EU.

Turtle Smart	UX0GTG20AM, UXAGTG20AM
Turtle Pro2	UX0GTG31AM, UXAGTG31AM
Turtle RTK	UX0GTR00AM, UXAGTR00AM
All in One RTK	UX0GTR10AM, UXAGTR10AM

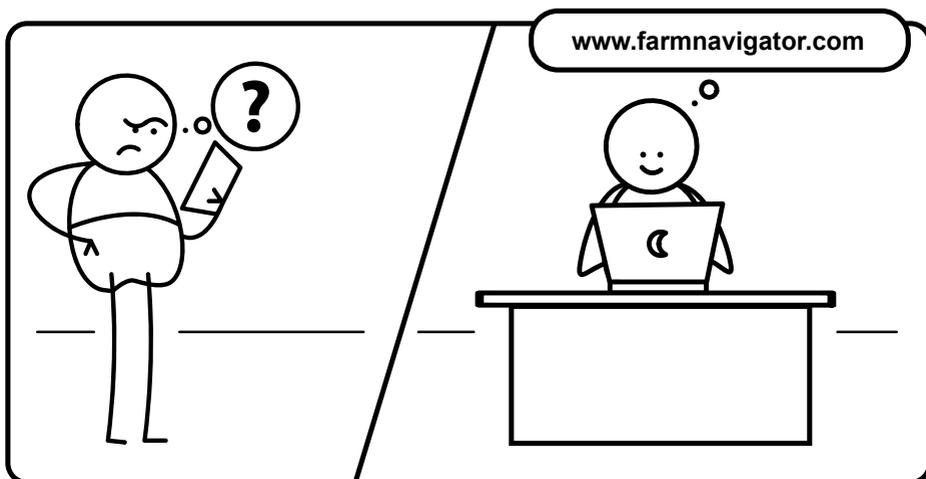
The full text of the EU declaration of conformity is available at the following internet address:  
<https://eudeclaration.avmap.it>

## 6. Safety Information

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AvMap disclaims any liability deriving from an improper use or installation of the product in a way that may violate the regulations and safety.

It is highly recommended that the installation of the product will be performed by a qualified maintenance technician. Consult the Installation manual for a correct installation procedure.



# FARMNAVIGATOR

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