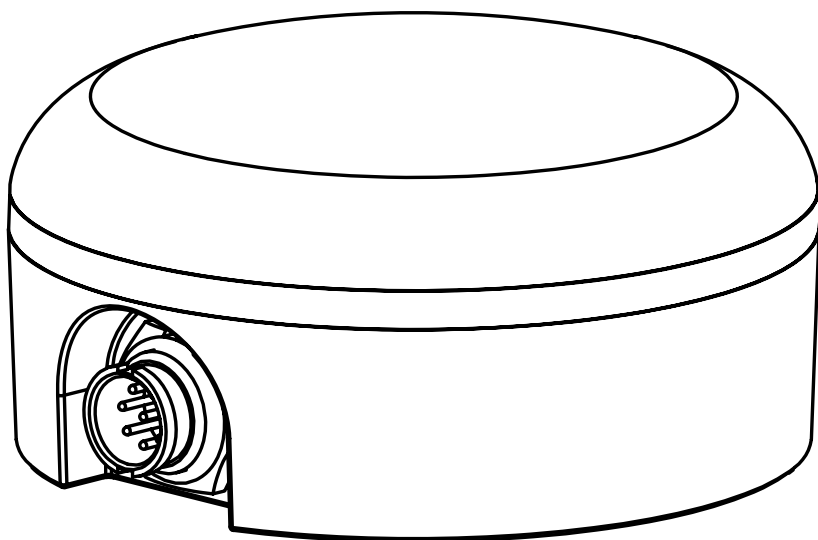




MMGPFFMAE010

# FARMNAVIGATOR



## GNSS RECEIVERS INSTALLATION MANUAL

# 1. Technical specifications

- Dimensions: 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)

\*for 1MINUTE RTK

	Turtle SMART	Turtle PRO2	Turtle RTK	1MINUTE RTK
FEATURES				
GPS	✓	✓	✓	✓
Glionass	✓	✓ <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>
ACTIVITIES				
Weeding	✓	✓	✓	✓
Manuring	✓	✓	✓	✓
Harrowing	✓	✓	✓	✓
Seeding	✗	✓ <sup>4</sup>	✓	✓
Plowing	✗	✗	✓	✓
Strip-till	✗	✗	✓	✓
Planting	✗	✗	✓	✓

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

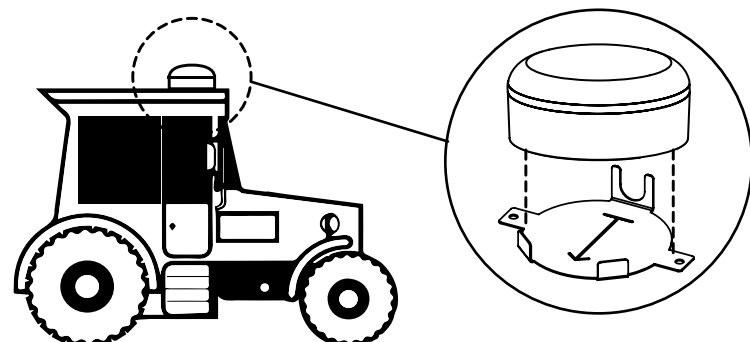
<sup>2</sup> Only through G7 Plus Farmnavigator

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

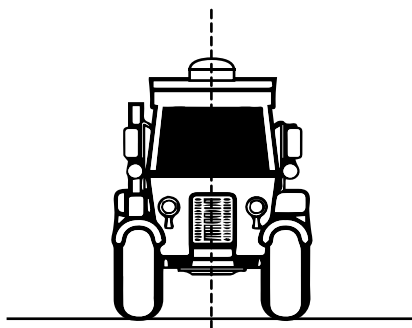
<sup>4</sup> Cereal seeding only

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

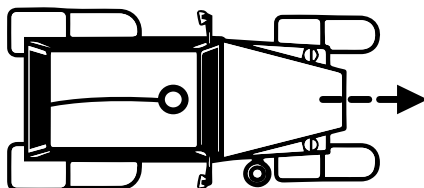
In order to achieve the highest accuracy, the receiver must be installed following the instructions below. This is requested for models embedding a fully inertial platform able to provide accurate dynamic vehicle information and precise terrain compensation (Turtle PRO2, Turtle RTK, 1MINUTE RTK).



1. On the roof of the tractor, horizontally, using the Steady Metal 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.

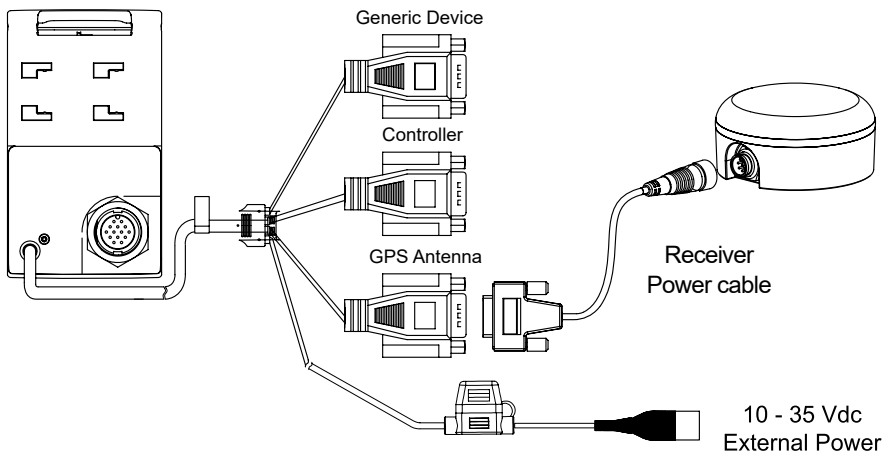
\*\* Provided along with Turtle PRO2, Turtle RTK, 1MINUTE RTK

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

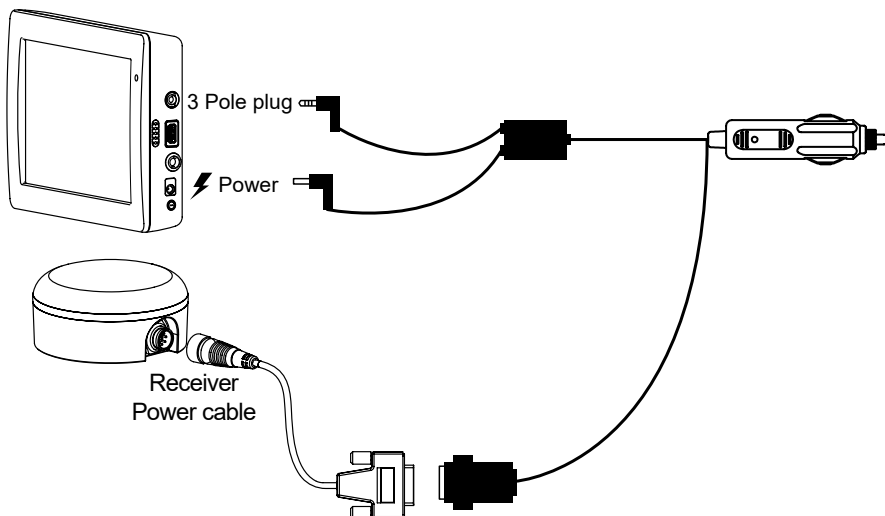
Connect the power cable to the Farmnavigator's "GPS Antenna" connector and you are ready to use your receiver.

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



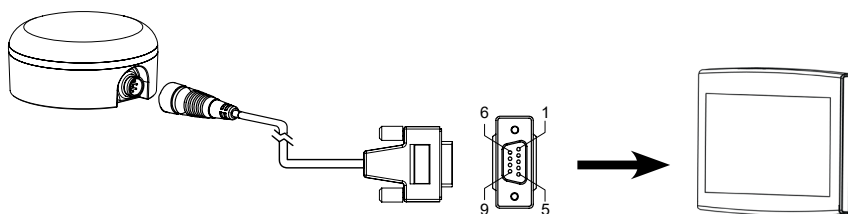
\*Compatible only with Turtle SMART

## 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

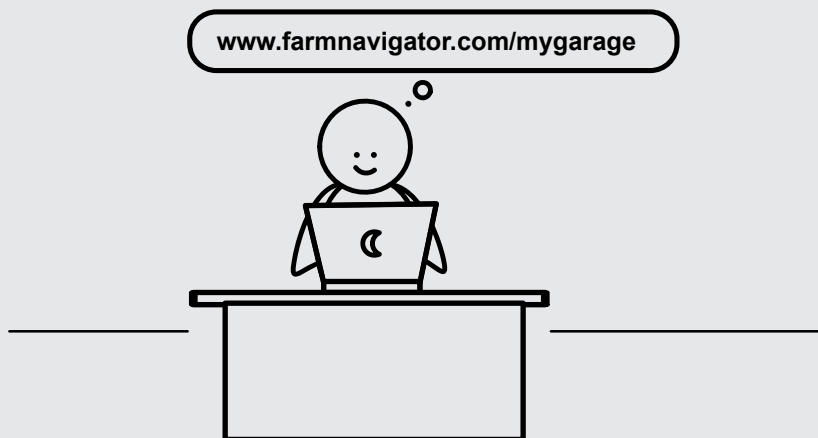
### 4.2 NMEA Baud rate

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 1MINUTE RTK**

### **A. Register 1MINUTE RTK to get instant access to Internet services**

In order to register your 1MINUTE RTK, access [www.farmnavigator.com/mygarage](http://www.farmnavigator.com/mygarage) website and complete the registration in few simple steps. Once it has been registered successfully, your 1MINUTE 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. Please refer to your distributor/reseller for NTrip client specific setup.

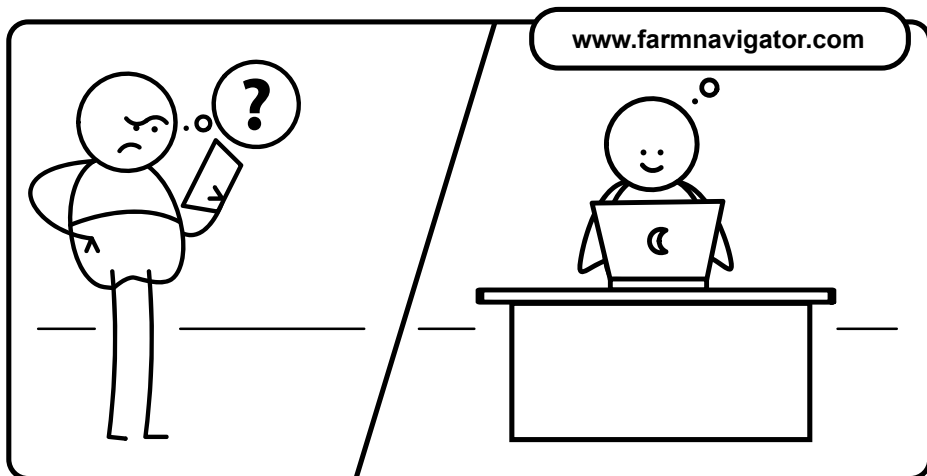
## 5. Simplified EU declaration of conformity

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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
1MINUTE RTK	UXAGTR10AM, UX0GTR10AM

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



  
**FARMNAVIGATOR**

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