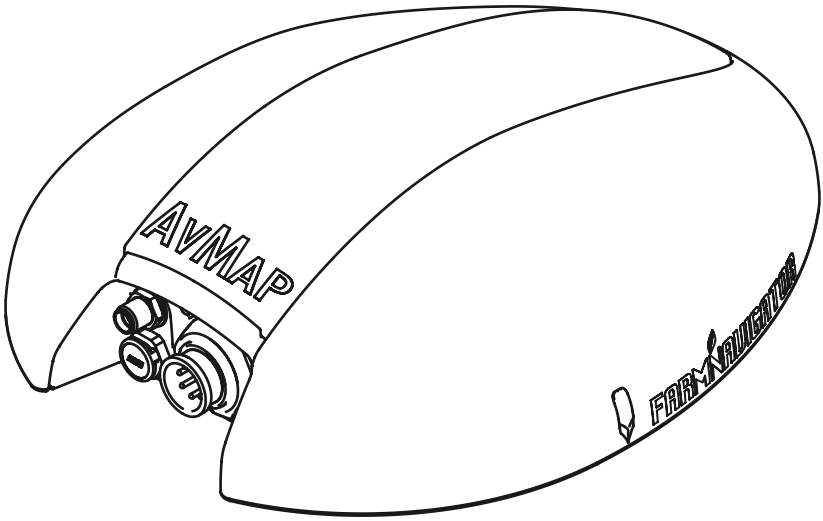
MMR4GFMAE021

FARMNAVIGATOR



All in One

All in One series Receivers

INSTALLATION MANUAL

1. Product description

The All in One Receivers series embed a GNSS receiver with tilt sensor and a 4G Cat.1 modem, offering RTK corrections and telematic services.

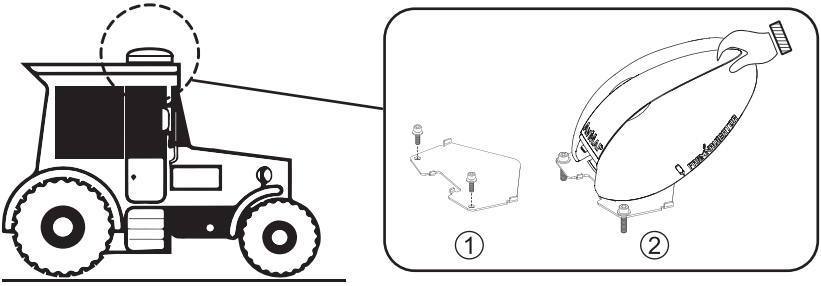
1.1 Content of the package

The Package includes:
- All in One Receiver
- All in One Receiver Power & I/O cable
- Steel bracket + adhesive tape

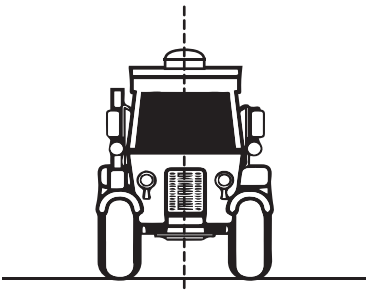
2. How to properly install your receiver on the tractor

In order to achieve the highest accuracy, your receiver must be installed following the instructions below. This allows your receiver, equipped with an inertial platform, to provide accurate vehicle dynamics information and precise terrain compensation. In case of special applications and installation on implements, follow the instructions in the dedicated manual.

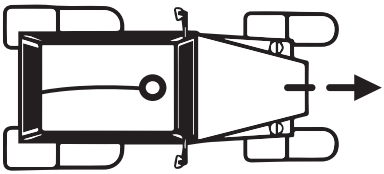
ATTENTION: your receiver is equipped with very strong magnets, during installation always stay alert and focused on keeping your hands safe.



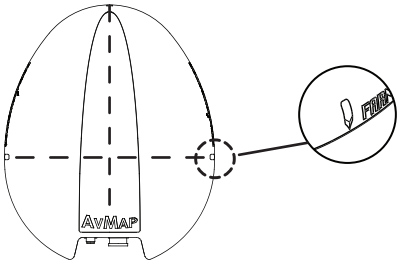
1. On the roof of the tractor, horizontally, using the steel bracket to avoid vibrations.



2. In the center of the cabin.



3. The connector for Power & I/O cable must be oriented opposite to the driving direction.

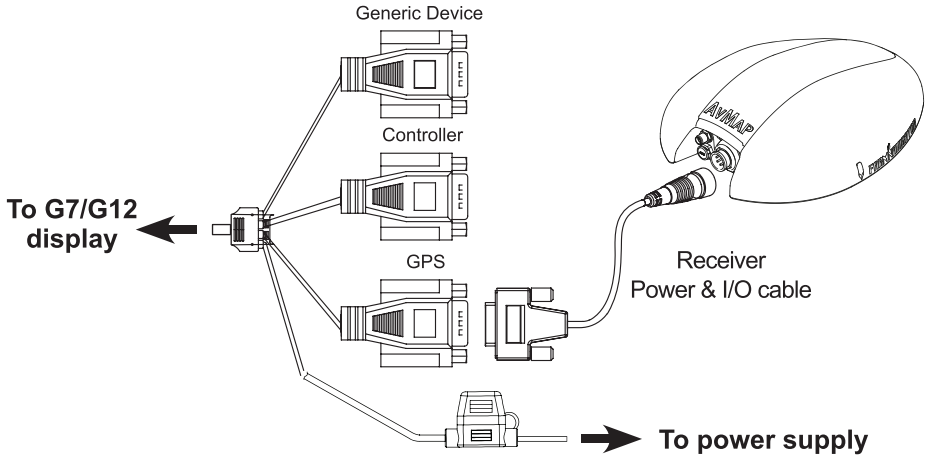


4. The center (x,y axes) of the GNSS antenna inside the plastic case is marked with a reference symbol.

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

3. How to use the receiver with FARMNAVIGATOR products

Connect the Power & I/O cable to the "GPS" connector of the G7/G12 display and you are ready to use your receiver.
Follow the instructions available in the G7/G12 user manual in order to check the satellite signals on your G7/G12 display.

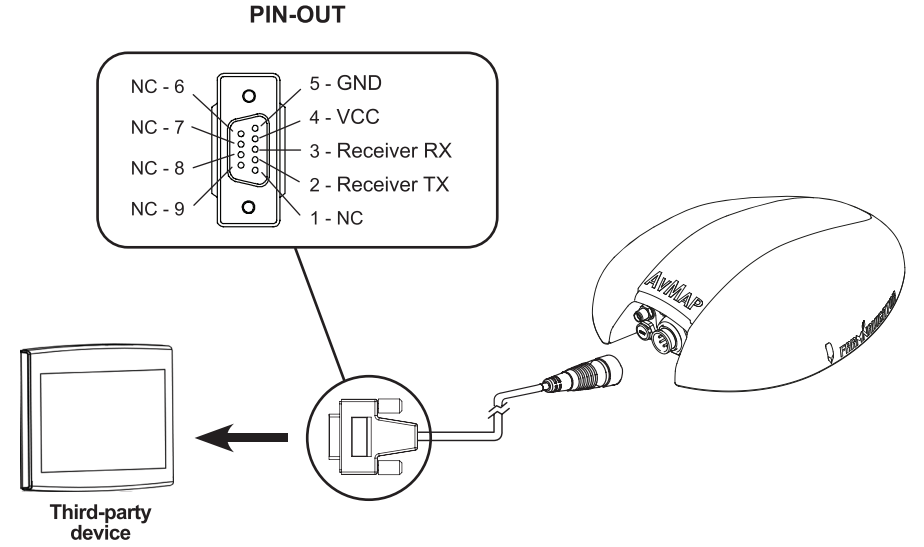


4. How to use the receiver with third-party devices

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

4.1 Third-party devices connection scheme

To connect the receiver to a third-party device, simply connect your device to the DB9 connector of the Power & I/O cable according to the pin-out presented below.

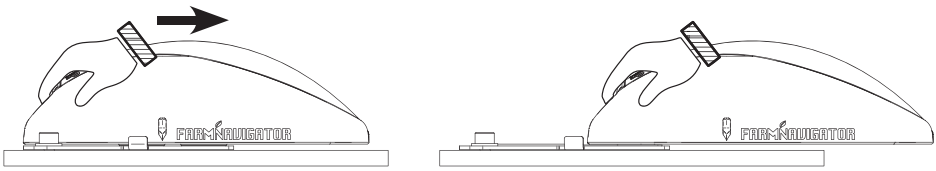


4.2 NMEA Baud rate

This receiver can output standard NMEA messages at different baud rates. The default setting is 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.

5. How to properly remove the receiver

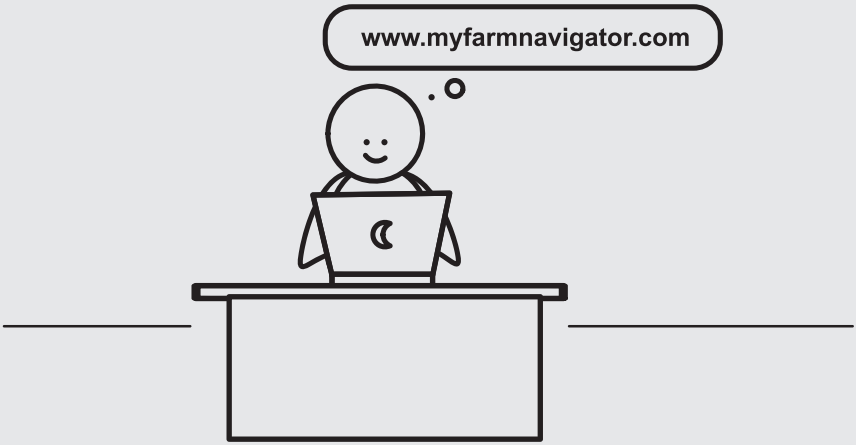
To remove the receiver from the steel bracket pull it as presented below. Always stay alert and focused on keeping your hands safe.



How to activate All in One Receiver series

A. Register your All in One Receiver to get instant access to Internet services

In order to register your All in One Receiver, access www.myfarmnavigator.com website and complete the registration in few simple steps. Once it has been registered successfully, your All in One Receiver starts sharing information with the remote server.



B. Regions where the Internet services are supported

All in One RTK	Worldwide*
All in One Tstar	Worldwide

*Contact support@avmap.it for detailed information about Internet services for your receiver.

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/G12 display (refer to the user manual for detailed instructions) or with a PC, using AvMap's All in One RTK configuration cable kit and the All in One RTK configuration tool 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.

6. How to activate TerraStar correction services

All in One TStar can receive TerraStar's correction services. Please read the dedicated coupon for instructions on how to activate the services.

7. Product conformity information

7.1 Simplified EU declaration of conformity

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.

All in One RTK	UXAGRK00AM / UXAGRK0GAM
All in One TStar	UXAGRK20AM

The full text of the EU declaration of conformity is available at the following internet address: **eudeclaration.avmap.it**

8. Safety Information

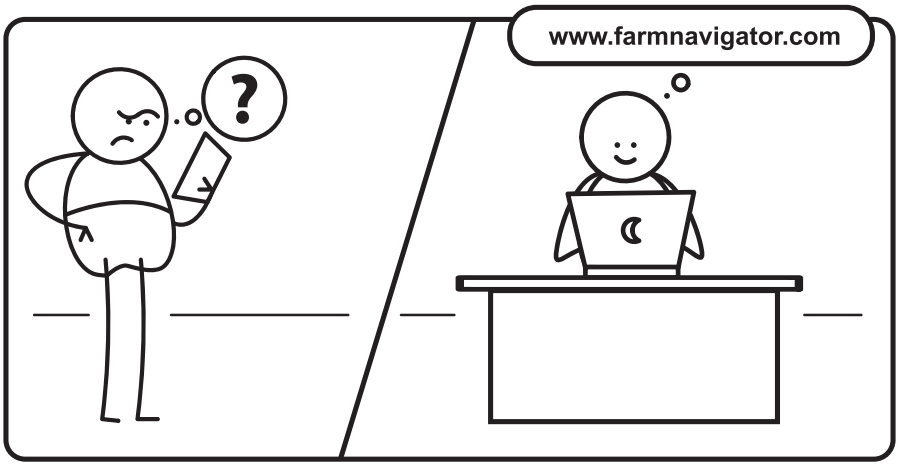
AvMap disclaims any liability deriving from an improper use or installation of the product in a way that may violate the regulations and safety.
It is highly recommended that the installation of the product will be performed by a qualified maintenance technician. Consult the Installation manual for a correct installation procedure.

9. Technical specifications

	All in One RTK EU	All in One RTK GLOBAL	All in One TStar
Physical and Electrical			
Dimensions	184 x 152 x 55 mm	184 x 152 x 55 mm	184 x 152 x 55 mm
Weight	240g without cable	240g without cable	260g without cable
Metal bracket	✔	✔	✔
Built-in magnets for easy mounting	✔	✔	✔
Power & I/O cable	4 m Conxall - DB9	4 m Conxall - DB9	4 m Conxall - DB9
Triaxial accelerometer	✔	✔	✔
Gyroscope	✔	✔	✔
Waterproof	IP67	IP67	IP67
Supply voltage	10-35 VDC	10-35 VDC	10-35 VDC
Operating temperature	-20°C / +60°C	-20°C / +60°C	-20°C / +60°C
Storage temperature	-30°C / +70°C	-30°C / +70°C	-30°C / +70°C
Power consumption	320 mA max @12VDC (~ 3.8 W)	320 mA max @12VDC (~ 3.8 W)	430 mA max @12VDC (~ 5.2 W)
2 Leds indicators	✔	✔	✔

TLC connector for external GSM antenna	✔	✔	✔
Goretex protective vent	✔	✔	✔
Communication and Connectivity			
4G cellular modem	LTE-FDD: B1 / B3 / B5 / B7 / B8 / B20 / B28	LTE-FDD: B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B13 / B17 / B18 / B19 / B20 / B25 / B26 / B28 / B66 LTE-TDD: B38 / B39 / B40 / B41	LTE-FDD: B1 / B2 / B3 / B4 / B5 / B7 / B8 / B12 / B13 / B17 / B18 / B19 / B20 / B25 / B26 / B28 / B66 LTE-TDD: B38 / B39 / B40 / B41
GNSS Receiver	GPS + GLONASS + GALILEO + BEIDOU + SBAS	GPS + GLONASS + GALILEO + BEIDOU + SBAS	GPS + GLONASS + GALILEO + BEIDOU + SBAS
GNSS frequency band	L1, L2	L1, L2	L1, L2, L5, TerraStar-L
GNSS rate	configurable (up to 10Hz)	configurable (up to 10Hz)	configurable (up to 20Hz)
RS232 baud rate	configurable (115200 default)	configurable (115200 default)	configurable (115200 default)
RS232 protocol	NMEA0183 configurable (GGA, GLL, RMC, GSA, GSV, VTG, ZDA, GST)	NMEA0183 configurable (GGA, GLL, RMC, GSA, GSV, VTG, ZDA, GST)	NMEA0183 configurable (GGA, GLL, RMC, GSA, GSV, VTG, ZDA, GST)
CAN Support	✖	✖	✔
Integrated NTRIP client	✔	✔	✔
Integrated IoT client	✔	✔	✔
Automatic FOTA Updates	✔	✔	✔
Telemetry	✔	✔	✔
BLE	✔	✖	✖
TerraStar service included	✖	✖	✔*
Performance			
RTK accuracy +/- 2 cm	✔	✔	✔
Terrain compensation	✔	✔	✔
1 Year of Internet services included**	✔	✔	✔
Inertial sensors data fusion	✔	✔	✔

* L license included.
** Refer to paragraph "How to activate All in One Receiver series" for regions where the Internet services are supported.



FARMNAVIGATOR

AvMap Srl
Viale Zaccagna, 6
54033 Carrara (MS), Italy
www.avmap.it
support@avmap.it

www.farmnavigator.com