

HOW TO GUIDE: Installing mojoRTK in the AGCO Challenger MT 7xx/8xx Series Tractors

Description

This document outlines how a mojoRTK system can be installed in a Challenger. Its intended audience is a Leica approved Value Added Reseller.

Required Items

- **mojoRTK system** - For information regarding this system and the latest software versions, please see www.mojoRTK.com
- **Challenger MT700/800 Tractor** - This system must have support for ISO11783 Class 3 implement control. Particularly on early series vehicles, please ask your dealer if this is fitted
- **mojoRTK Cable Kit for Challenger MT700/800**

Note: Please review the full installation guide provided with the system. This document will only assist with tractor specific components not covered in the manual.

Installation

1. Place antennas at location shown. It is better to have the antennas as far apart as you can whilst keeping them the same distance forward on the tractor.
2. Unscrew the roof via the 12 screws on roof. Remove the 4 * 16mm bolts, 4 * 13mm, and 6 * 10mm around the under edge of the roof. Lift the roof up.
3. Run antenna cables through grommets on the roof as shown and over to the right hand side of the tractor behind the radio slots. **Be careful to make sure that the cables will not be crushed when the roof is secured down again – it would be wise to loosely tie them down.**
4. There will be an 8 pin Deutsch connector in the roof at the front right (driver's view). Connect this to the appropriate connector on the CAN steering cable.



5. From the outside of the cab, squeeze the CAN cable and RF cables through the hole with the large wiring harness that goes into the cab behind the radio. The silicone can be pushed away a little to get the cables through. The picture shows the CAN connector and blue cables going into the cab at the left of the picture.



6. Open up the covers for the radio slots inside the tractor. The system should be installed in the right hand slot.



7. Follow the wiring loom that goes to the roof and you should find the cables that you inserted from outside. Pull them through gently to give you enough slack to make connections to the console.



8. Connect the AM/FM antenna plug for the radio into the black round connector on the rear of the mojoRTK console using the adapter cable provided



9. Plug in the remaining antenna cables, followed by the CAN steering cable connector (ISO C) and finally the original radio connectors from the Challenger (ISO A and B)



10. Push the mojoRTK console into place

11. Enable the ISO11783 Class 3 feature on the tractor. This can be found via the setup page on the TMC (Monochrome terminal) on page 3. You will get a warning every time the tractor starts so simply press the tractor's confirm button which is next to the screen

12. Disable the roading lock-out switch to ensure the guidance system is enabled



13. Configure the mojoRTK system according to the mojoRTK user manual. When asked to select the "Vehicle/Steering Kit" use "CAT MT7xx" or "CAT MT8xx" depending on your tractor type when running the setup wizard
14. Test the system by driving forward and twitching the steering wheel (this is required) and use the steering test feature to confirm that the system is working

Appendix 1: Vehicle Pin outs and connectors

■ Radio

Standard ISO A connector with the following Pin-out

Function	Pin	Colour
Power 12V (permanent/memory)	7	Red
Power 12V accessories (key switch)	4 and 6	White and White
Ground	8	Black
Lights	-	-
Antenna	-	-

Standard ISO B connector with the following Pin-out

Function	Pin	Colour
Speaker front left +	1	Yellow
Speaker front left -	2	Purple
Speaker front right +	3	Brown
Speaker front right -	4	Green
Speaker rear left +	7	Orange
Speaker rear left -	8	Pink
Speaker rear right +	5	Purple
Speaker rear right -	6	White

■ Steering

Deutch 8 pin socket (Deutch part number DT04-08P – this is the connector for our cable not the connector already on the tractor)

Function	Pin	Colour
CAN (Steering) +	5	Yellow
CAN (Steering) -	6	Green