

INSTALLATION INSTRUCTIONS



Agra GPS Retrosteer

Important safety information

Read this manual and the operating and safety instructions carefully before installing the Retrosteer Kit.

- Follow all the safety information included in this guide.
- If you need assistance installing or servicing your equipment, contact Agra-GPS for assistance.
- Follow all safety labels attached to the system components. Be sure to keep security labels in good condition and replace missing or damaged labels. To obtain replacements for missing or damaged security labels, contact Agra-GPS.

When operating the machine after installing the Retrosteer Kit, observe the following safety measures:

- Be alert and focused, don't get distracted by your surroundings.
- Do not operate the Retrosteer Kit system under the influence of alcohol or illegal substances.
- Do not leave the machine unattended while the Retrosteer Kit is on.
- Keep a safe working distance from other people. The operator of the system is responsible for immediately deactivating the Retrosteer Kit system as soon as a safe working distance is reached.
- Make sure the Retrosteer Kit is disabled before performing any maintenance on the machine or any part of the Retrosteer Kit system.
- Follow all safety instructions of the manufacturer's system as well as the display system
- The Massey-JD Bridge must only be used in the field, never on the road!

Electrical safety

- Always make sure that the power lines are connected with the correct polarity according to the markings. Reversing the power lines can cause serious damage to the equipment.
- Make sure that cables and connectors never go over sharp edges and cannot get snagged, as this can cause power interruptions and/or malfunctions.

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Disclaimer

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PLEASE DO NOT USE THE Retrosteer IF YOU DO NOT AGREE TO THIS DISCLAIMER.

Introduction

Congratulations on your purchase of the Retrosteer Kit. The Retrosteer Kit is designed to make tractors and self-propelled machines Autoguide-ready. This allows an AGRA-GPS Vision10 display or a JD display to be used.

With the use of one of these displays, the advantages of a steering system can be fully exploited, it enables lane guidance and automatic steering by means of A-B, circular or contour tracks.

ATTENTION

This manual does not replace the manuals of the manufacturer of the vehicle or the display system. The operator must read and understand the manuals and instructions of these systems before using the Retrosteer Kit.

Attention: ALL IMAGES AND GRAPHICS in this manual are for illustrative purposes only.

Installation

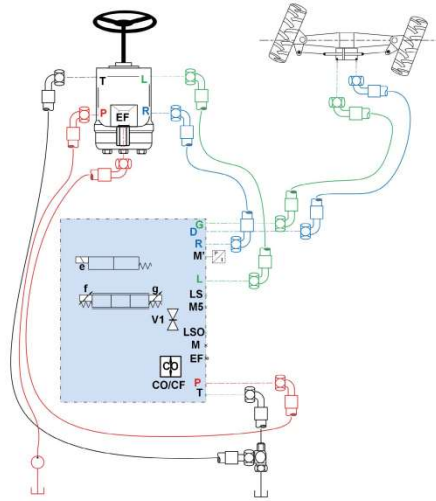
Step 1

Find a suitable position for the valve.



Install the valve in such a way that there is sufficient space for both the hydraulic connection and the electrical connection to prevent damage to hoses and electrical lines. The valve is a combination valve and can be integrated into almost any hydraulic system. The following graphics show examples of connections of the valve.

3. Hydraulic systems with integrated priority valve on the Obitrol



We would like to point out that all work on hydraulic systems should be carried out by professionals or specialist workshops. Hydraulics are often under pressure!

It is essential that hoses and fittings are adapted to your vehicle and installed so that no other components of your vehicle are damaged. Pay attention to order and cleanliness when working on open hydraulic systems to prevent damage to your machine. The warranty of the components is void if contamination or foreign objects are detected.

Step 2

The included steering angle sensor is mounted on the steering axle.

The steering angle sensor comes with the following components:

1. Sensor
2. 2x Ball Head
3. 30cm M10 threaded rod
4. 2xM10 nut
5. 2x M10 Self-Locking Nut
6. 4x Washer 10.4
7. Pipe clamp for clamping to the handlebar
8. Leverage
9. Bracket

The bracket must be placed in such a way that it is not damaged or can damage anything else during the steering angle. If necessary, the bracket must be adapted to your vehicle.

The following picture shows an example of a built-in bracket.



Step 3

Next, the roof components are attached. Excluded are machines that already have Agra-GPS or JD-ATU cabling.

The roof components consist of roof bracket and deluxe panel.

We offer roof brackets for several manufacturers and types.



When installing the roof brackets, care should be taken to ensure that all holes that occur in the roof are properly closed and sealed. Functions such as antennas and roof hatches should not be affected.

We would like to point out that it is essential that you secure yourself against falls when working on the roof!

Step 4

Installing and laying cable harnesses and bridge

All our cable harnesses are covered with mesh hose and are therefore also protected against environmental influences. However, they should not be mechanically overstressed (tensile stress, pinching, etc.). The wiring harnesses are universally built for different vehicles and may need to be adapted to your vehicle. The bridge should be installed in such a way that it can be reached at any time. It is recommended to install them near the valve. The bridge is moisture and splash resistant.

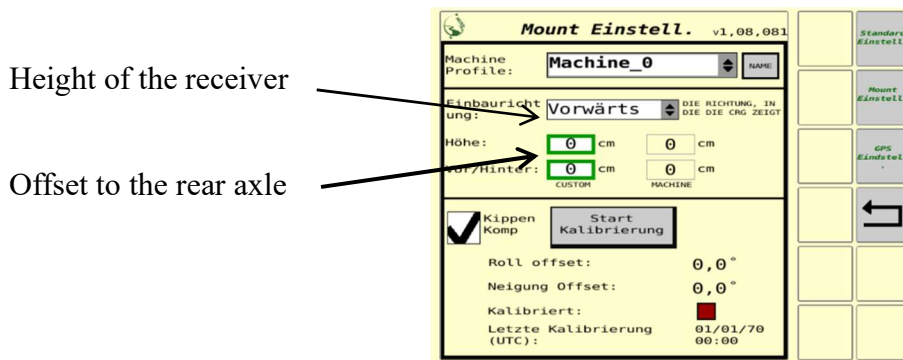
Step 5

Calibration of the RetroSteering Kit

The Calibration step is divided into SEVERAL STEPS!

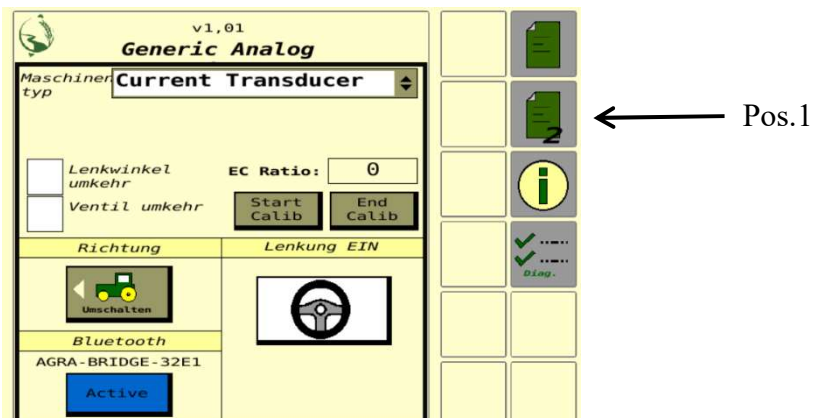
Step 5.1

The receiver must be measured, i.e. the height of the receiver and the offset to the rear axle must be measured and entered in the display. To do this, go to the ISOBUS mask of the receiver - in the example the AGRA-GPS CRG -, there you will find the item Setting and the symbol ⚙️, then click on the right tile Mount Settings, there you specify:



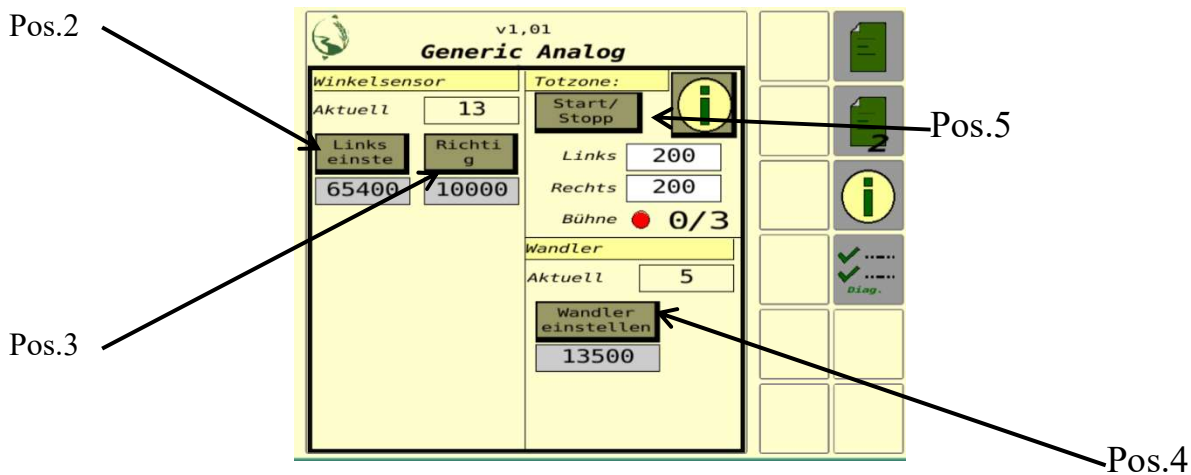
Step 5.2

The actual settings of the RetroSteer Kit can be made in the ISOBUS mask of the supplied bridge. To do this, we go to the Pos.1 tile on the right to get to the settings menu.



Step 5.3

The steering angles left/right must be set by pressing Pos2. and confirmed with Set, then to the right Pos.3 and this again confirmed with Set.



Step 5.4

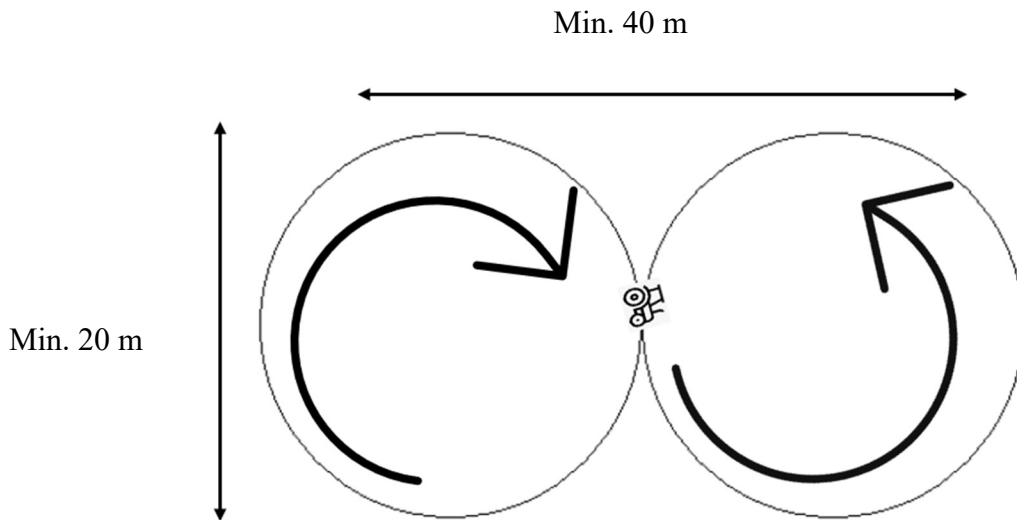
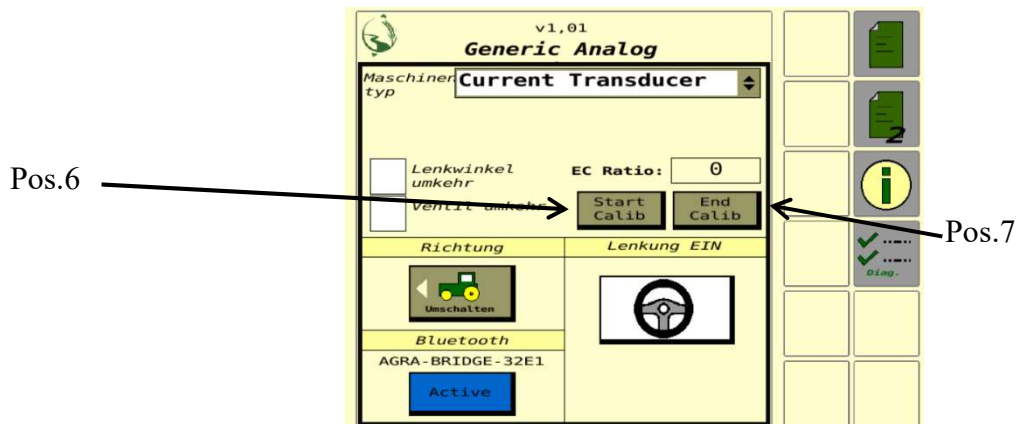
In the next step, the pressure switch and deactivation of the steering must be set via "Steering intervention". To do this, leave the steering wheel in a neutral position and confirm with the button Pos.4.

Afterwards, the "coil currents" have to be calibrated. To do this, start the calibration via Pos.5. This process may take a few minutes.

Step 5.5

For the final calibration you need at least 20 m x 40 m of space, so that you can drive a tight figure eight with your machine. To do this, we confirm Calib Pos.6 via the Start button and Calib Pos.7 after driving the figure eight via the End button.

IMPORTANT: The figure eight must be driven from steering angle to steering angle.



Step 5.6

After valve calibration, you can perform the TCM calibration of the receiver.