

# INSTALLATION MANUAL

## Agra-GPS CLAAS-JD Bridge for Lexion 8800



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Release Notice

This is the August 2022 release (v1.0) of the CLAAS-JD Bridge Installation Manual for Lexion 8800 combines.

In this manual, the CLAAS-JD Bridge may be referred to simply as the Bridge.

## **Disclaimer**

While every effort has been made to ensure the accuracy of this document, Agra-GPS Ltd assumes no responsibility for omissions and errors. Nor is any liability assumed for damages resulting from the use of information contained herein. Agra-GPS Ltd shall not be responsible or liable for incidental or consequential damages or a loss of anticipated benefits or profits, work stoppage or loss, or impairment of data arising out of the use, or inability to use, this system or any of its components.

**DO NOT USE THE CLAAS-JD Bridge IF YOU DISAGREE WITH THE DISCLAIMER.**

## **Important Safety Information**

Read this manual and the operation and safety instructions carefully before installing the CLAAS-JD Bridge.

- Follow all safety information presented within this manual.
- If you require assistance with any portion of the installation or service of your equipment, contact your Agra-GPS for support.
- Follow all safety labels affixed to the system components. Be sure to keep safety labels in good condition and replace any missing or damaged labels. To obtain replacements for missing or damaged safety labels, contact Agra-GPS.

When operating the machine after installing the CLAAS-JD Bridge, observe the following safety measures:

- Be alert and away of surroundings.
- Do not operate the CLAAS-JD Bridge system while under the influence of alcohol or an illegal substance.
- Remain in the operator's position in the machine at all times CLAAS-JD Bridge system is engaged.
- Determine and remain a safe working distance from other individuals. The operator is responsible for disabling the CLAAS-JD Bridge system when a safe working distance has been diminished.
- Ensure the CLAAS-JD Bridge is disabled prior to starting any maintenance work on the machine or parts of the CLAAS-JD Bridge system.
- Follow all safety instructions from the CLAAS system as well as the JD system!
- The CLAAS-JD Bridge must only be used in the field, never on the street!

## **Electrical Safety**

- Always verify that the power leads are connected to the correct polarity as marked. Reversing the power leads could cause severe damage to the equipment.
- Verify that all cables and connectors are not going over sharp edges and are not pinned, as this could cause power shortages and/or malfunctions.

## Introduction

Congratulations on your purchase of the CLAAS-JD Bridge! This product is designed to bridge the communication between a CLAAS Lexion 8800 combine and a John Deere display (1800, 2600, 2630, or 4640). This allows a JD display to create maps in the John Deere format and also provides straight AB-Line autosteer.

The operator uses the JD display to create AB-lines. The current position is determined by a John Deere receiver and all this information is used by the CLAAS-JD Bridge to create steering instructions for the tractor. All conditions for autosteer such as minimum speed, steering enabled, etc., must be met by the CLAAS system before the autosteer engage option in the tractor can be activated.

### NOTICE

This manual is not intended to replace the manuals for the tractor or the John Deere system. The operator must read and understand the manuals and instructions of these systems before using the CLAAS-JD Bridge.

## Parts Overview

### A. CLAAS-JD Bridge



### B. Cable

1. Bridge Connector
2. Monitor Connector
3. StarFire Connector (with dust plug)



## Step 1: Install Receiver Mounting Plate

Remove 2 plastic eyebrow panels in the order shown. (Later on, the receiver cable will be routed through the bottom slot indicated by arrow).



Install with bracket square to machine and flush to the front of the eyebrow. Drill through plastic and install bolts with locking nuts.



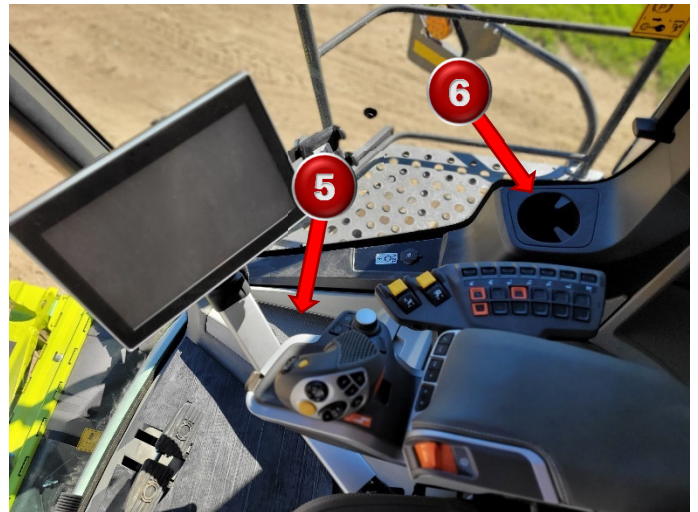
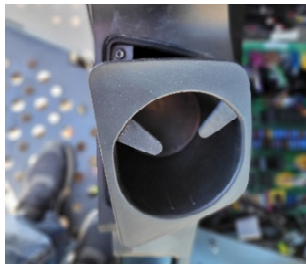
## Step 2: Remove Interior Panels

The following interior plastic panels must be opened. See below for further tips on removing these panels. Before starting, fully open the right-hand cab window.

- 1) Squeeze top and bottom of insert and pull out
- 2) Push button indicated and the switch panel will pop downward
- 3) Pull shelving insert out, and take off the plastic panel behind it
- 4) Take off cover for vertical cable run (further instructions below)



- 5) Remove 2 fuse panel covers near the floor
- 6) Remove lower door panel (NOTE: remove the cup holder first, as there is an extra screw beneath it).



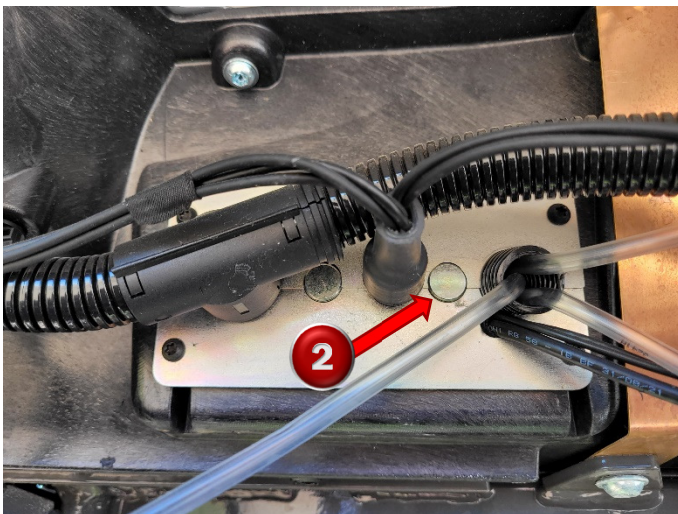
Further Instructions for Removing Vertical Plastic cover:

- After fully opening window, remove handle and window latching stem (arrows)
- Remove hanger hook (remove plastic cover from the bottom, then the screw behind)
- Pull vertical plastic off: spreading the bottom first as shown, then pull towards you over the handle mounts and over the window latching stem, then sliding downward



**Step 3: Routing Receiver Cable**

- 1) Start routing by pushing the receiver connector upward through the gap near the ceiling (arrow).
- 2) From the outside, remove the penetration panel. The plug indicated will be removed for the receiver cable.



- 3) Push a thin stick (roughly 4 feet long) from the outside into the cab. Tape the receiver connector to the stick and pull through to the outside.

Re-install the penetration plate, the plastic eyebrow panels (in the reverse order of removal), and connect the StarFire. Tie the cable to the hand-hold so it doesn't dangle when disconnected later.



Inside the cab, continue the routing by pulling the cable down into the fuse box area. →



The monitor cable requires routing up to the monitor mount. Route through one of the relief holes at the bottom front of the window. It is possible (barely) to force the monitor plug through the hole without damage. Route the cable up and underneath the rubber weatherstripping to the monitor mount.



## **Step 4: Mount and Connect the Bridge**

Remove the plastic floor panel behind the operator seat. Mount the Bridge below. Connect the receiver cable to the mating connector on the Bridge.



Locate the X485 connector below the operator seat (right hand side). It will be attached to termination resistor labelled as XR014.3 (connected through plug X48T). Remove this from the X485 connector, and connect it to the other side of the Bridge.

Replace all interior plastic panels in the reverse order. Mount the JD monitor and plug it in. Installation is complete!



### Step 5: Mount the JD Display

The mounts for the JD display are NOT part of the Bridge, however they can either be ordered as an optional item from Agra-GPS or directly from RAM.

The JD-display may be mounted many different ways.

You may use the standard JD mounts or a RAM mount. RAM-270U + 2 \* 1.5" balls (RAM-202U) + 4" double socket arm (RAM-201U). It fits JD displays 2600 and 2630.

### Step 6: ISO Application

The Bridge comes with an ISO application that will be loaded onto the John Deere monitor. The app should automatically store itself on the monitor after the first few minutes of the initial startup. On subsequent runs the app will load itself from memory as soon as possible. The app includes:

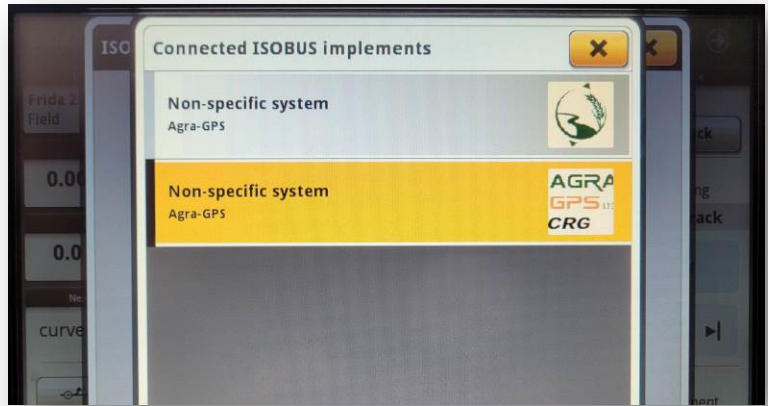
- Option to change work recording mode
- Option to change the machine type
- Help page
- Calibration

Where to find the Bridge ISO application on the John Deere monitor:

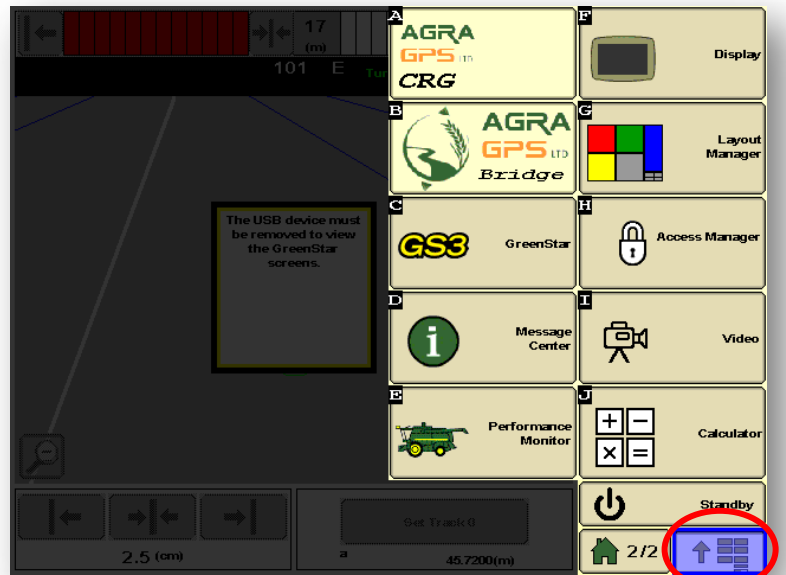
- On a John Deere 4640 the application will be loaded in the ISOBus VT section on the main page of the display.



- It is possible that there are multiple ISO applications registered on the monitor. The Bridge application is shown with the Agra-GPS logo. Also shown on this picture is Agra-GPS's CRG application, which will not be present if a CRG is not in use.



- On John Deere 1800, 2600, 2630 the application will be shown in the side menu of the John Deere display. The side menu is opened by clicking the button on the bottom right of the display.



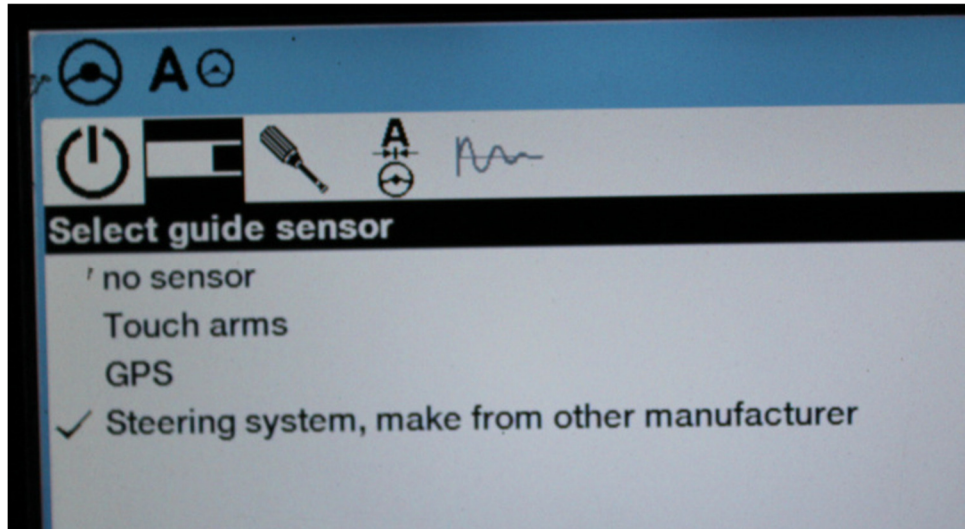
**NOTE:** John Deere 1800 and 2600 monitors do not show a loading bar for ISO applications, while 2630, 4240 and 4640 monitors do

If the ISO application is not loaded:

- Try clearing the monitor's memory. On 2630 monitors this can be done in the Message Center in the side menu. Go to the Cleanup tab, check controllers, then Begin Cleanup. On 4640 monitors this can be done in the info page of the ISOBus VT. Navigate to the ISOBus VT window and click the info button at the top of the page, then press Clean Up ISO Bus VT.
- Do a hard reset of the John Deere monitor (Unplug it, then plug it back in).
- Do a full restart of the machine. Remember the app may take a few minutes to load.

## Step 7: CEBIS Setup

- In the CEBIS you must select the "Steering system, make from...". Depending on your software version, it may also show as "ISO Steering" or "Open Steering Interface":



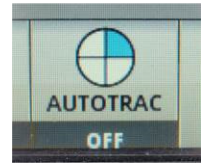
- For good autosteer performance, the Lexion must learn "Straight driving". Use the CEBIS monitor to "learn".



- A good test to verify complete communication with both the Claas and John Deere systems is to change header size on the CEBIS monitor.
- It should take only a few seconds until the header size is changed on the JD side.

## Step 8: AutoSteer Operation

Refer to the AutoTrac Pie indicator on the JD monitor screen. With the Bridge attached, you should see at least 1 quarter of the Pie displayed if everything is normal (Installed).



Press the AutoSteer-Enable button on the armrest to obtain 2 quarters (Configured).



If the Pie has not already moved to 3 quarters (Enabled), then press the Pie on screen.



Press the Engage (also known as Resume) button to activate Auto-Steering (4 quarters). It will engage if all other conditions are met, such as minimum speed and threshing activated.

You can press the Engage button again to disengage, or simply turn the steering wheel. Forcing the steering wheel will automatically disengage auto-steering.



## Adjusting steering

Using the JD display you may adjust your steering performance. Most machines will perform optimally with all JD settings centred. If a change is required, find an open area where you can travel at target speed and adjust one parameter at a time until you are satisfied with the steering performance.

