

INSTALLATION MANUAL

Agra-GPS Kubota-JD Bridge



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Release Notice

This is the December 2018 release (Revision A) of the Kubota-JD Bridge Installation Manual.

Disclaimer

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

Important Safety Information

Read this manual and the operation and safety instructions carefully before installing the Kubota-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 Kubota-JD Bridge, observe the following safety measures:

- Be alert and aware of surroundings.
- Do not operate the Kubota-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 when the Kubota-JD Bridge system is engaged.
- Determine and remain a safe working distance from other individuals. The operator is responsible for disabling the Kubota-JD Bridge system when a safe working distance has been diminished.
- Ensure the Kubota-JD Bridge is disabled prior to starting any maintenance work on the machine or parts of the Kubota-JD Bridge system.
- Follow all safety instructions from Kubota as well as the John Deere.
- The Kubota-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 Kubota-JD Bridge. The Kubota-JD Bridge is designed to bridge the communication between a Kubota tractor (autosteer ready) 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, curve, or circletrack 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 Kubota-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 Kubota tractor 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 Kubota-JD Bridge.

Installation of the Kubota-JD Bridge

Step 1: Mounting the Kubota-JD Bridge

First, start by removing the lower panel located by bottom right side of the seat. Once inside the panel, slide the Kubota-JD bridge into its holder and mount it against the built-in mounting bracket with the 'cable side' of the bridge facing down.



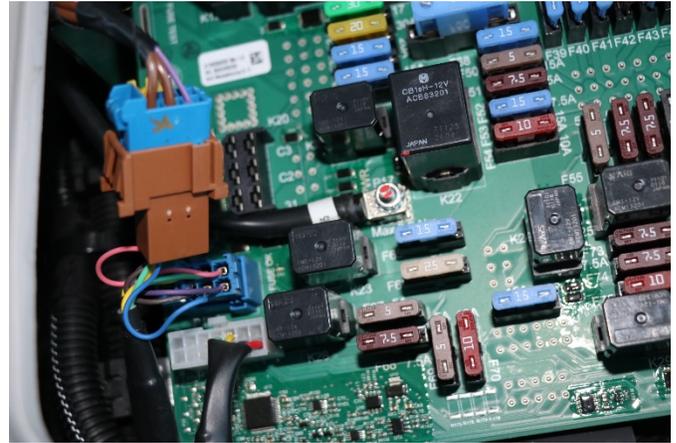
Once the bridge is mounted, attach the grey 12-pin Deutsch male end of the Kubota adapter cable to the bridge's grey 12-pin Deutsch female. Feed the other end up to the circuitboard (located underneath the panel to the back right of the cab) so that you can make the following connections.



The 14-pin Molex female 39-01-2140 connects to the 14-pin Molex male (X103 in the Kubota schematics).



Unplug the ISOBUS connector harness on the circuitboard. The 6-pin JPT female TE 1-965640 (blue plug) connects to the 6-pin JPT male blue plug on the circuitboard. The 6-pin JPT male (brown plug) connects to the 6-pin JPT female of the ISOBUS connector harness that was just unplugged.



Next, connect the 12-pin Deutsch male end of the bridge into the 12-pin Deutsch female end of the "Cable to JD components" cable. The other ends of this cable will go to the John Deere receiver and the John Deere Monitor.

Step 2: Mounting the JD Display

The mounts for the JD display are NOT part of the Kubota-JD Bridge, however they can either be ordered as an optional item from AgraGPS 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)

<http://www.rammount.com/part/RAM-270U>

(John Deere 4640 mounted on the right door)



Step 3: Mounting the JD Receiver

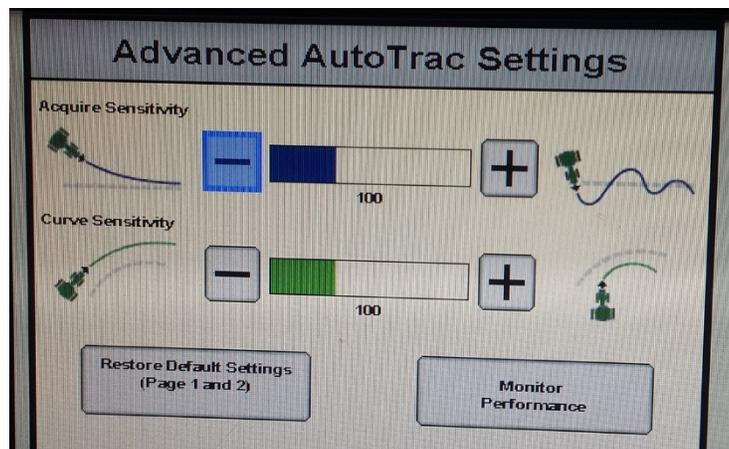
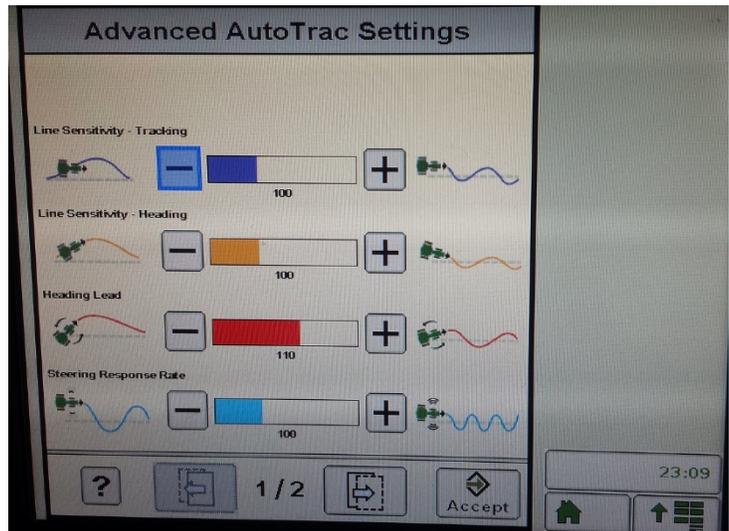
The Kubota-JD Bridge does NOT include a standard JD-receiver bracket.

You will want to create a mount which is centered left-right on the cab roof.



Step 4: Adjusting steering

Using the JD display you may adjust your steering performance. Most machines will perform optimally with all JD settings at 100. 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.



Step 5: Additional information for Kubota-JD Bridge

- The Kubota-JD bridge will automatically disengage above 13.5 mph (21.7 kmh). This is due to limitations of the autosteer system set by the machine.
- The Kubota autosteer toggle must be in the off position when the machine is started, otherwise the machine will give an error and will not be able to autosteer. To fix this error, simply switch the toggle switch off and then back on.

Step 6: ISO Application

The Kubota 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 Kubota app includes:

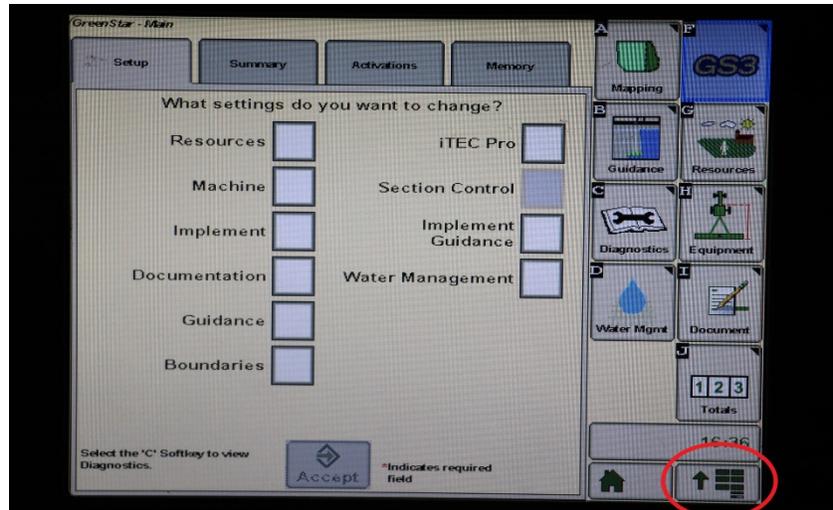
- Calibration
- Option to change work recording mode
- Option to change the machine type
- Optional autosteer engage button & status
- Help page
- Support page
- Diagnostic page

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

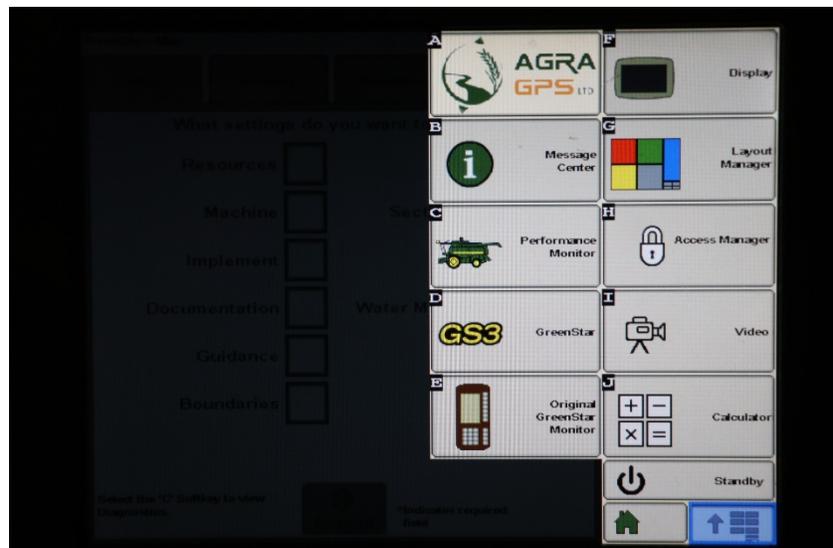
- On a John Deere 4640 the application will be loaded in the ISOBus VT section on the main page of the display.



- 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 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.