INSTALLATION MANUAL

Agra-GPS Versatile-JD Bridge For Articulated Tractors

Version 1.2
January 2026

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AGRA-GPS LTD

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Release Notice

This is the January 2026 release of the Versatile-JD Bridge Installation Manual.

Disclaimer

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

Important Safety Information

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

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

The operator used 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 Versatile-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 Versatile system before the autosteer engage option in the tractor can be activated.

NOTICE

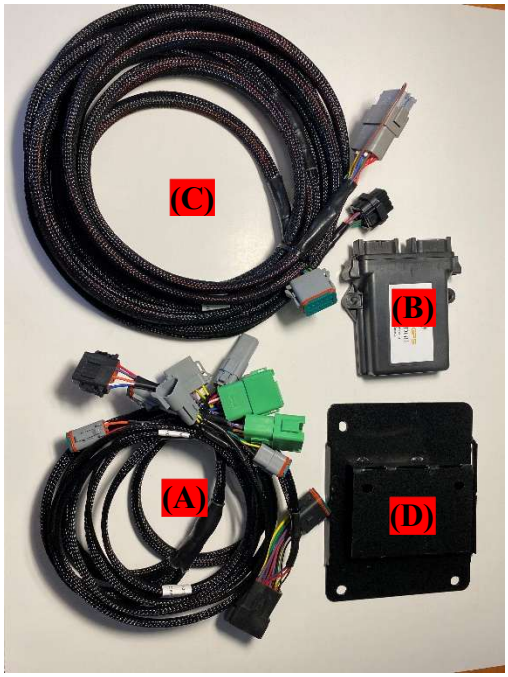
This manual is not intended to replace the manuals for the tractor or the John Deere system. The operator must read and understand the manuals and instructions of these systems, before using the Versatile-JD Bridge.

What's In The Box

In your order you should receive the following items:

a. Versatile-JD Harness
b. Versatile-JD Bridge
c. JD12 Harness for connection to receiver and monitor
d. Versatile-JD Mount

NOTE: If you are missing any of these items or they appear to be damaged please contact +1 (825) 247-2477 or support@agragps.com



Installation of the Versatile JD Bridge

Step 1: Outside the cab

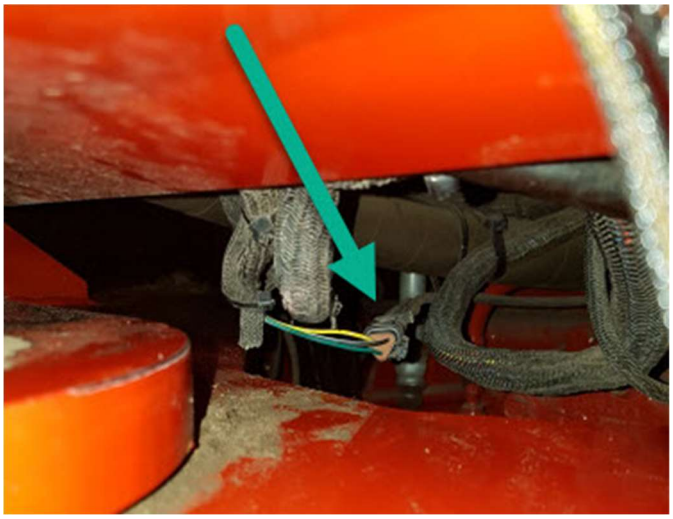
Locate the existing Sauer Danfoss valve, the wheel angle sensor plug and the transducer plug.

Find the green 12-pin Deutsch under the cab. It is located in the center back of the cab.

Connect the "cable for the outside cab connections" here.

Find the 3-pin Deutsch for the wheel angle sensor.

Open the 3-pin connection and insert the male/female 3 pin connections from the "cable for the outside cab connections" cable.

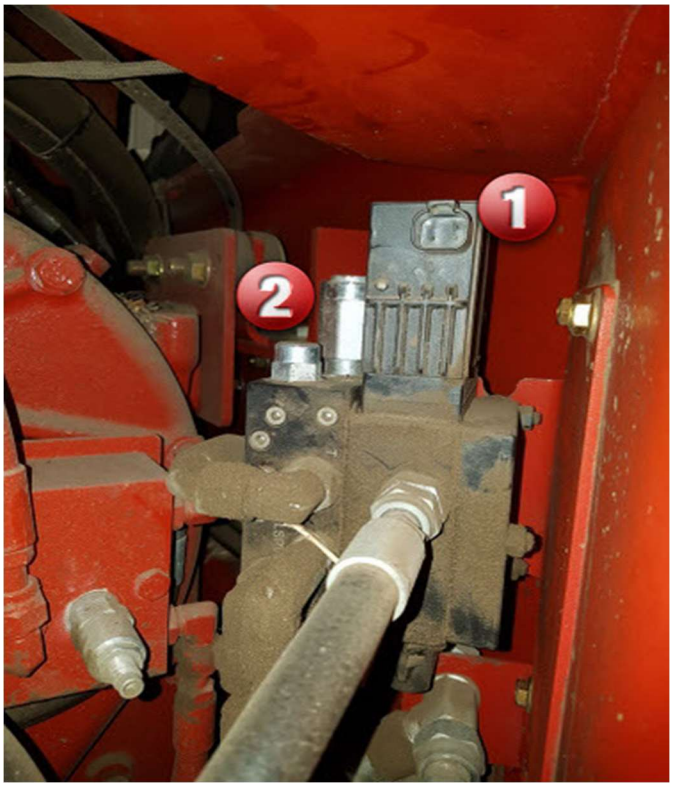


Find the Sauer Danfoss valve with its 4-pin valve connection and the 3-pin transducer connection.

Connect "cable for the outside cab connections" to the valve (1) and transducer (2).

Once all connections are made, secure the cable with cable ties so it cannot be damaged.

NOTE: If the tractor had a Trimble or Outback steering system installed, the transducer was changed and must be changed back to the factory transducer sensor: 422-0000-086 Raven XDCR Pressure Transducer 0-3000 PSI

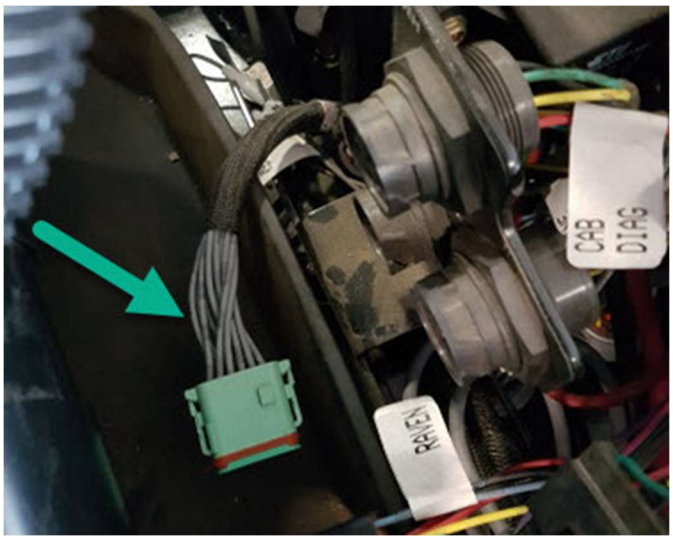


Step 2: Inside the cab

Find the green 12-pin Deutsch connector inside the cab. It is located behind the seat under the plastic cover.

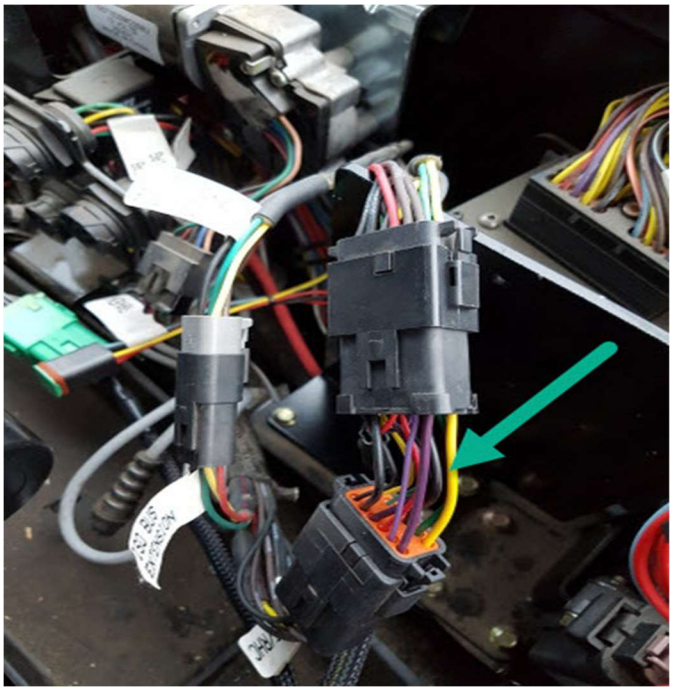
Connect the corresponding green 12-pin Deutsch male connector here.

Connect the other end of this adapter to the bridge.



Connect the next adapter to the "Armrest" 12-pin black Deutsch connector by opening that connection and inserting the male/female part of the adaptor.

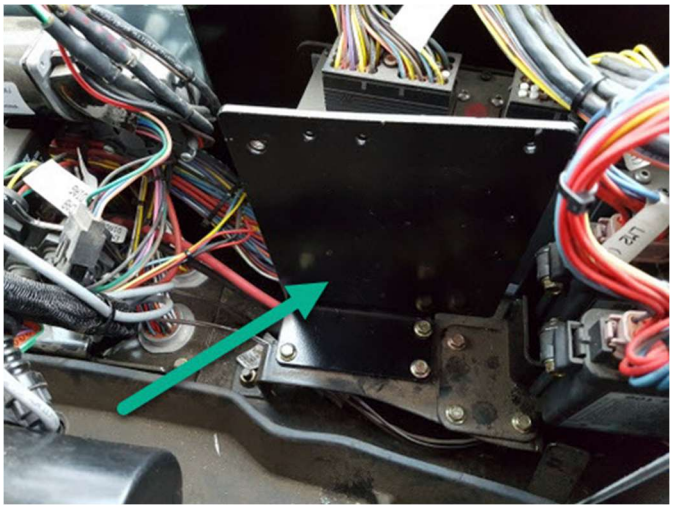
The other 12-pin mini gray connector must be connected to the Versatile-JD Bridge module.



Once both harnesses are installed ensure that both are plugged into the Versatile-JD Bridge module.

It should look like this.

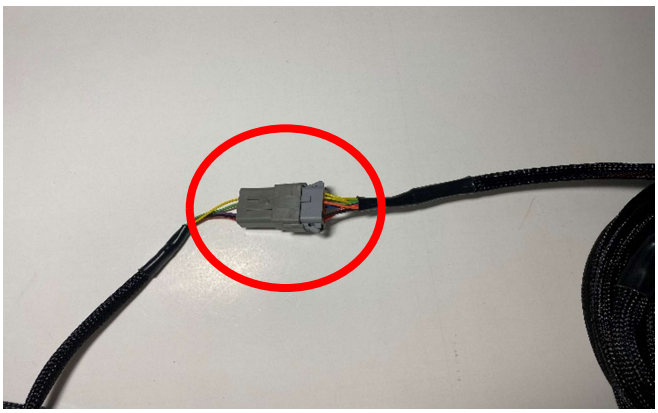
Then use the existing mount panel and add the Agra-GPS mounting plate.



Bolt our optional mounting plate to the existing mount.

Then mount the new bridge style by aligning the 2 holes on the bridge with the mount and bolting them in place.

The 12-pin male Deutsch connector should also be plugged into the 12-pin female Deutsch connector of the JD-12.



The black connector on the JD-12 harness will connect to the monitor. The grey 12-pin connector on the JD-12 will connect to the outside receiver.

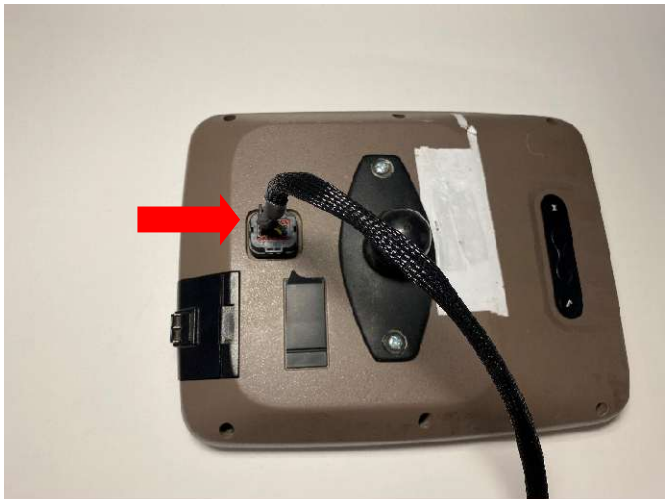
Step 3: Mounting the JD Display

The mounts for the JD display are NOT part of the Versatile-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). It fits JD displays 2600 and 2630.

Once the JD display is mounted route the display cable (black connector) of the JD-12 to the display and connect it.

Note: The back of your display may look different but this connector will work for all displays.



Step 4: Once the receiver is installed, move on to the Bridge User Manual for instructions on how to access the ISO app

NOTE: If you do not have the Bridge User Manual it can be found at agragps.com

Step 5: Calibration of the Versatile JD Bridge

Section – Steering Valve: Allows the user to set the left and right max of the Versatile machine. To calibrate, steer as far left as possible and press, “Set Left”. Then, steer as far right as possible and press, “Set Right”.

Section – Transducer: Allows the user to set the steering wheel movement detection. While the machine is running, ensure the wheel angle is straight and the machine is in park. Then, press, “Set Transducer”.

Section – Deadband: Allows the user to calibrate the deadband of the valves. Ensure the perimeter around the machine is clear and press the Start/Stop button to begin. An indicator will blink yellow while calibration is in progress and will take approximately five minutes.

Additional information for Versatile JD Bridge

Notes: Machines prior to 2015 may or may not have the wheel angle sensors!
Machines without diff-lock do not have the wheel angle sensor which is required for autosteer.
Versatile partno for the wheel angle sensor:
With PTO 86057019SRV
Without PTO 86056401SRV

Operation

To allow autosteer to operate, the following conditions must be met:

- Hydraulics activated
- Not in Park
- Hazard lights off
- Beacon lights off

Notes for ISO connectivity

Versatile tractor may or may not be equipped with the ISO connector at the back of the tractor. Many customers however use ISO compliant implements and with the JD-Bridge and a JD-display have a display which can handle ISO compliant implements. The harness provided with the Versatile-JD Bridge is therefore already prepared to integrate to an ISO harness!

Option 1: If your tractor is equipped with the factory ISO harness and has an external ISO connector. You will find 2 * 4-pin deutsch connectors in the back of the tractor. These are connected to the outside ISO connector and the 2 * 4-pin deutsch connectors of the AgraGPS harness simply insert into this connection. Open the Versatile 4-pin connectors, remove the termination plugs in the AgraGPS harness and insert the now open 4-pin connectors to the split 4-pin connectors of the Versatile. That is it, the AgraGPS harness is now integrated to the Versatile tractor harness.

Option 2: Your tractor does NOT have an external ISO connector at the back of the tractor. On the AgraGPS Versatile harness the 2 * 4-pin deutsch with the terminators represent the 2 ends of the ISO cable. By removing ONE terminator, you can extend this end of the harness to an ISO connector at the end of the tractor. Most customers use a John Deere RE174726 ISO cable to extend the AgraGPS harness to the end of the tractor. By connecting the AgraGPS 4-pin deutsch to the RE174726s 4-pin deutsch the ISO or canbus lines are connected! As per the JD install manual of the RE174726 you must now provide 12V power to the setup. Please check the JD manual for more details.

The new ISO connector at the rear of the tractor becomes the end of the ISO line and provides the required 120 ohm termination.