Installation Guide

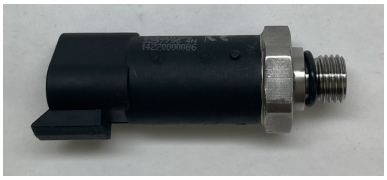
Installation Kit: 911-8100-10

Versatile

350	530DT
375	550
380	550DT
400	570
405	570DT
430	575
450	580
450DT	580DT
460	610
500	610DT
500DT	620
520	620DT
530	

For all 2015 and newer steer ready Versatile 4WD tractors. Requires factory wheel angle sensor and factory pressure transducer. See notes below about different pressure transducer options

Factory installed pressure transducer supported by this installation.



If your machine previously had Outback Guidance autosteer installed it may have transducer pictured below. If using this transducer, then 051-0461-10 harness must be ordered separately.

Introduction

WARNING!!!

Unexpected machine movement may occur when creating a new machine profile, switching machine profiles, changing valve type setting, or connecting a terminal with a different machine profile active.

Ensure the 3 position power switch is in the center (roading) position before performing any of the above operations until the proper machine profile and valve type is selected.

The procedures outlined in this guide provide the basic installation procedure for the eDriveM1 on the machines specified on the front cover of this guide. If you do not see your machine listed, contact customer support for further instruction. The kit components and corresponding install instructions are designated for each applicable machine make and model and may not be used on undesignated machine models.

Review Installation Kit Contents

Kit contents are outlined in the following pages of this installation guide. Read all applicable installation instructions for your machine's model and ensure that all required kit components are present before beginning the installation.

Read and Follow All Safety Messages

- Refer to the safety manual for the machine that the eDriveM1 is being installed on for operating age and precautions.
- Prior to installing and operating the eDriveM1, read and understand all safety precautions as outlined in this guide.
- Store this guide and all related safety information with related machine manuals for future reference.

Introduction

Safety Information and Warnings*

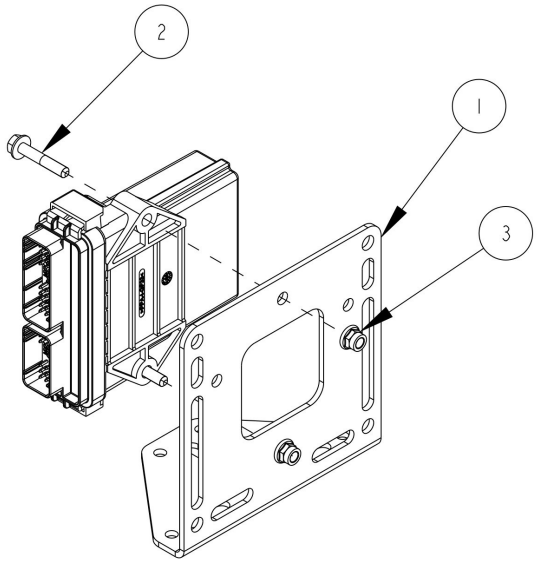
- eDriveM1 is NOT designed to replace the machine's operator and is designed as a driving aid for use in precision agriculture applications.
- eDriveM1 is NOT intended for use on roadways and should remain disengaged at all times when traveling on roadways.
- eDriveM1 does NOT control the speed of the machine and a human operator is required to manually maintain a safe operating speed.
- eDriveM1 does NOT avoid obstacles. To prevent human, machine and property injury a human operator is required to operate the machine at all times.
- Do NOT allow anyone to operate without instructions.
- At all times the driver is fully responsible for the safe operation of the vehicle.

* The safety warnings contained in this installation guide are not meant to be an exhaustive list of potential hazards.

- To ensure peak performance, eDriveM1 should only be installed after a thorough machine inspection has been conducted. The contents of this kit and eDriveM1 are not intended to replace preventative and or needed maintenance. To avoid bodily and machine injury, follow the machine preparation checklist below:
    - ⇒ Inspect steering linkage: Machine should drive in a straight line without manual correction
    - ⇒ Turn off machine and power-off all electronic gauges, monitors and external devices when installing or performing maintenance on the eDriveM1
    - ⇒ Park machine on a clean and level surface
    - ⇒ Lower all implements and headers to the ground
    - ⇒ Apply the parking break and chock wheels
    - ⇒ Inspect any drilling and/or cutting sites to ensure no electrical wiring damage will be incurred

ECU installation

Required items for ECU install listed below



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	640-0197-10	BRKT, ECU, EDM1
2	2	675-1362-10	SCREW, FLANGE, HEX, M6-1.0x35
3	2	676-1089-000	NUT,M6X1.0,NYLON,FLANGED,ZP

Figure 1

Remove the plastic trim panel behind the operators seat to gain access to the ECU mounting location. Remove the metal bracket circled in picture to the right. 2 of the 3 bolts holding down this bracket will be reused in the next step.

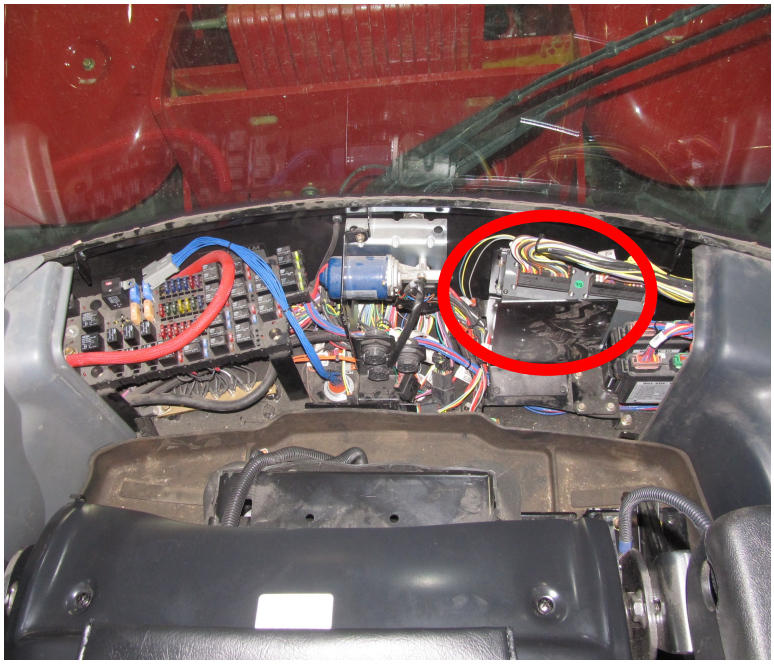


Figure 2

ECU installation

In place of removed bracket, use the provided (item 1) ECU bracket and use the retained bolts to secure the new ECU bracket to the mount as pictured to the right.

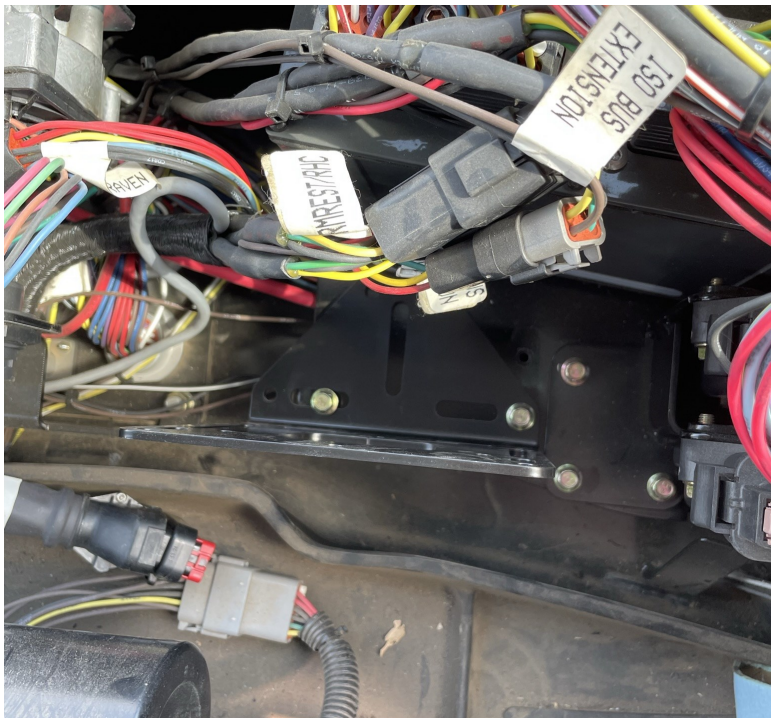


Figure 3

Attach the eDriveM1 steering ECU to the bracket using included hardware (item 2 & 3) .

Logo rear connector right

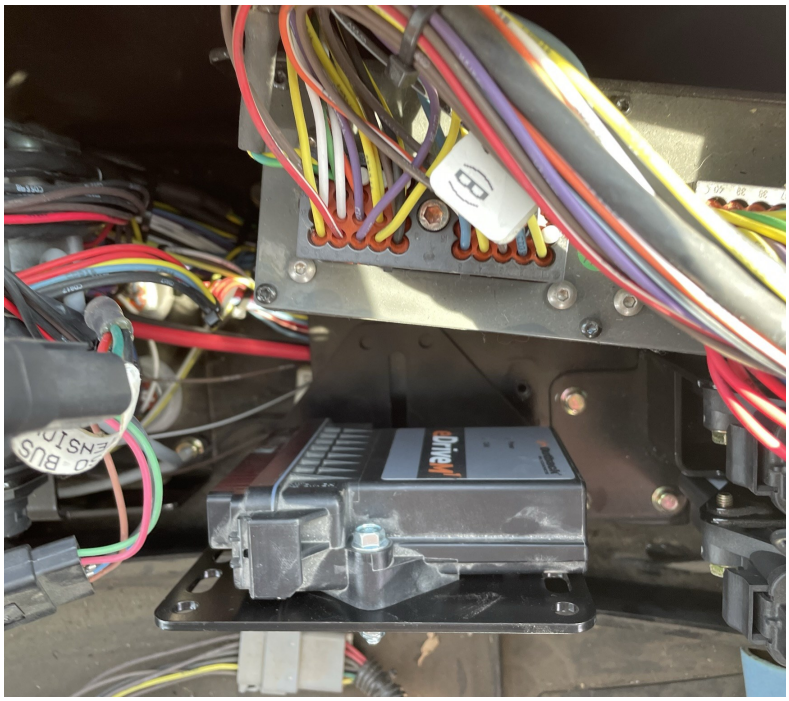


Figure 4

Cabling Diagram

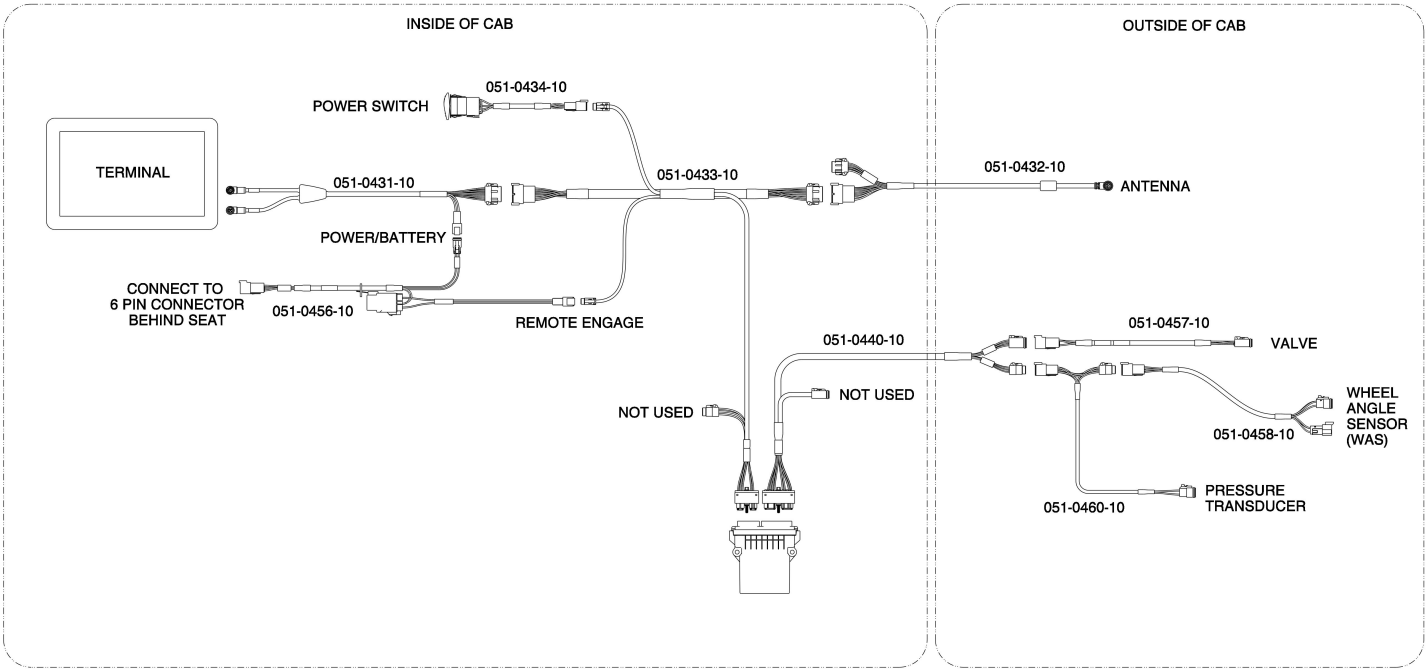


Figure 5

Cabling Connections - Outside of Cab

Refer to the cabling diagram (figure 5) to see what cables are required for the outside of cab connections.

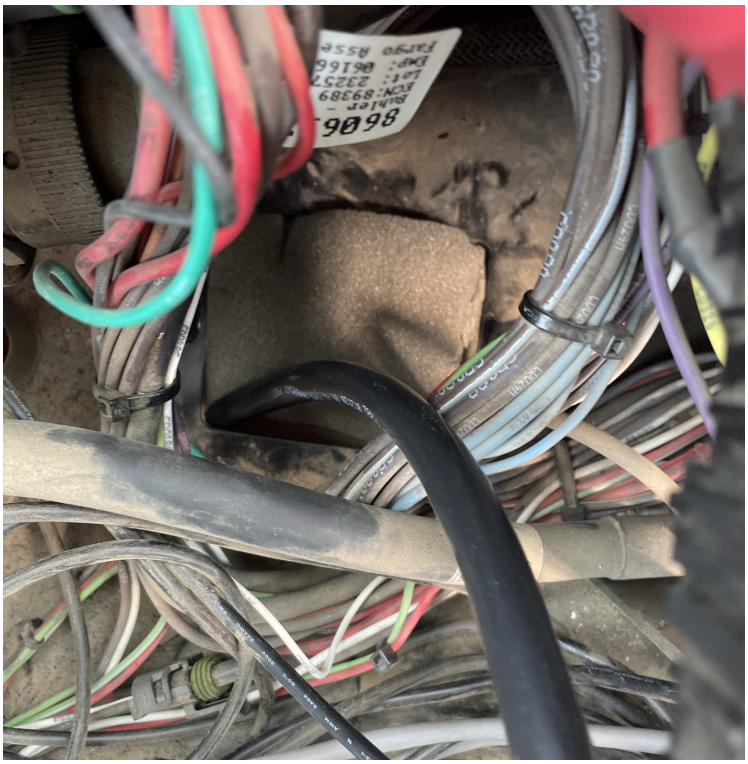


Figure 6

Connect the 051-0440-10 harness to the eDriveM1. Take the free end of the harness and route it through the cab passthrough opening located in the back right corner of the cab. You will connect the end of this harness to other harnesses under the cab later in this installation.

Next we will cover the out of cab connections. Find the 3 pin factory wheel angle sensor connection located under the cab in front of the articulation joint.

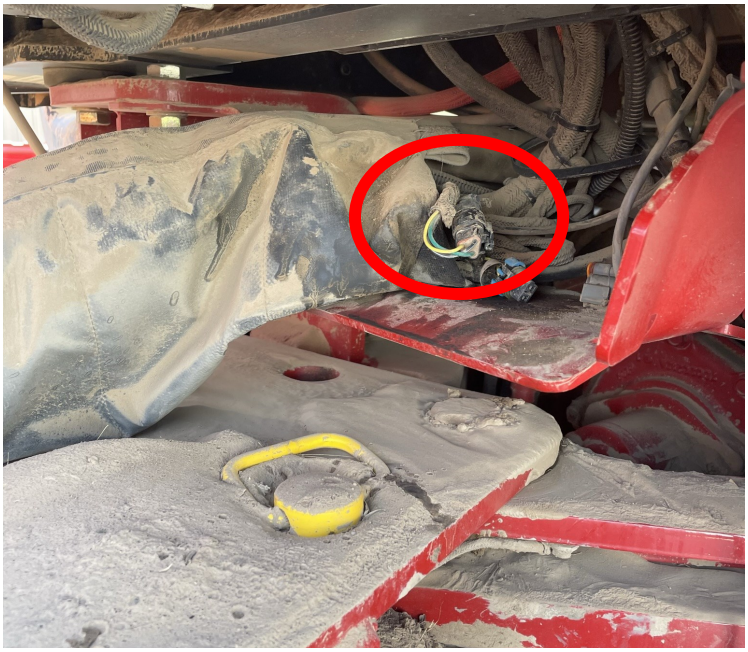


Figure 7

Cabling Connections - Outside of Cab

Disconnect the 3 pin connector and connect the 051-0458-10 WAS splitter harness into the connection you just disconnected.

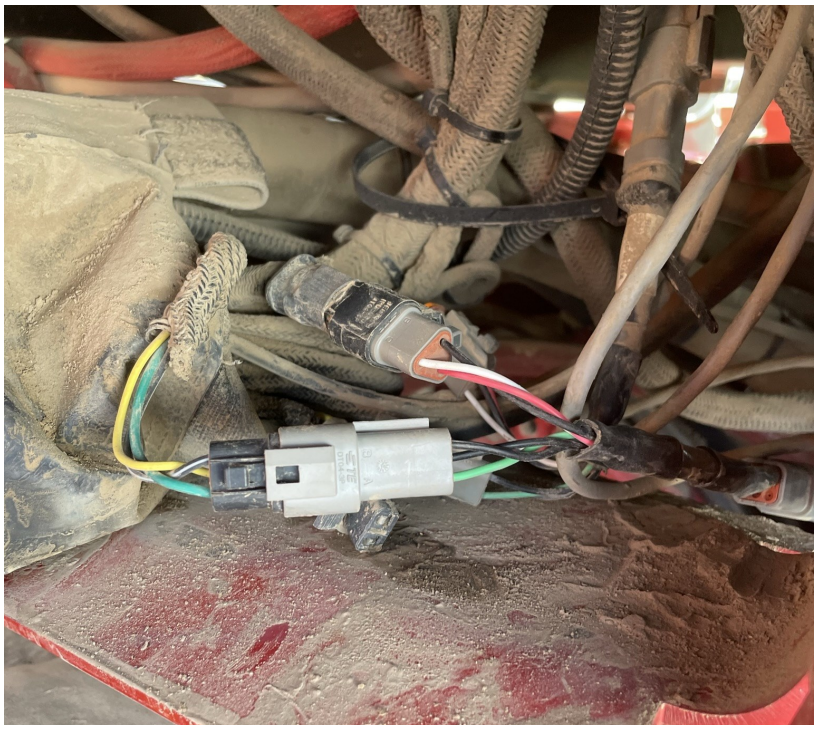


Figure 8

Locate the Danfoss steering valve. It will be located between the transmission and the right side of the tractor in front of the articulation joint underneath the cab.

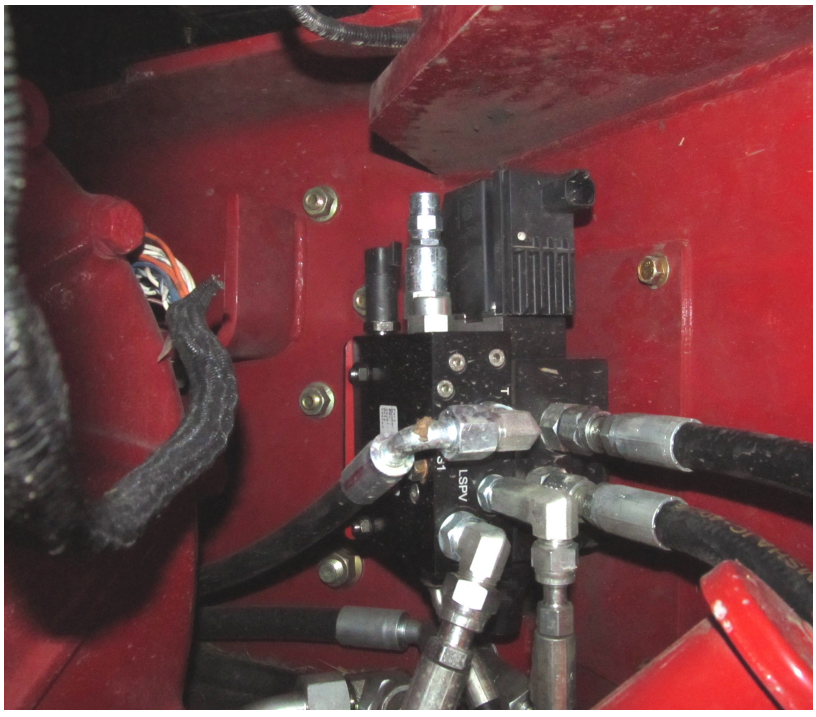


Figure 9

Cabling Connections - Outside of Cab

Connect the 051-0460-10 pressure transducer harness to the factory installed pressure transducer.

Figure 10

Connect the 051-0457-10 valve harness to the Danfoss steering valve.

Be sure to route and secure all harnesses away from the articulation joint to avoid damaged harnesses.

Connect all remaining harness ends per diagram on page 6.

This completes the out of cab connections required for this install.

Figure 11

Cabling Connections - Inside of Cab

Next we will connect the in cab power and remote engage harness. Locate the 6 pin Deutsch DT connector in the rear compartment behind the seat.

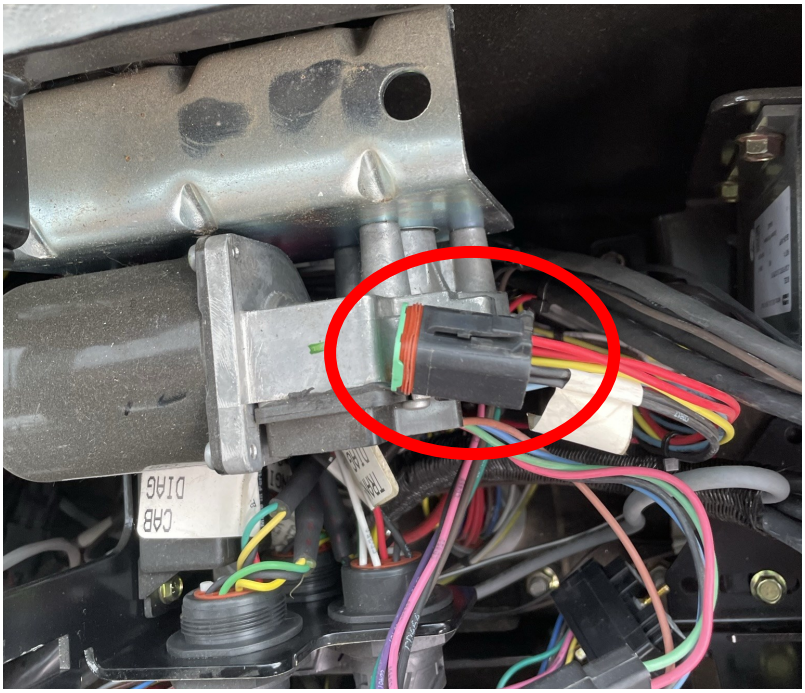


Figure 12

Connect the 051-0456-10 power/remote engage harness to the 6 pin Deutsch connector.

Connect all remaining harness ends per diagram on page 6.

This concludes all the cable connections for this install.

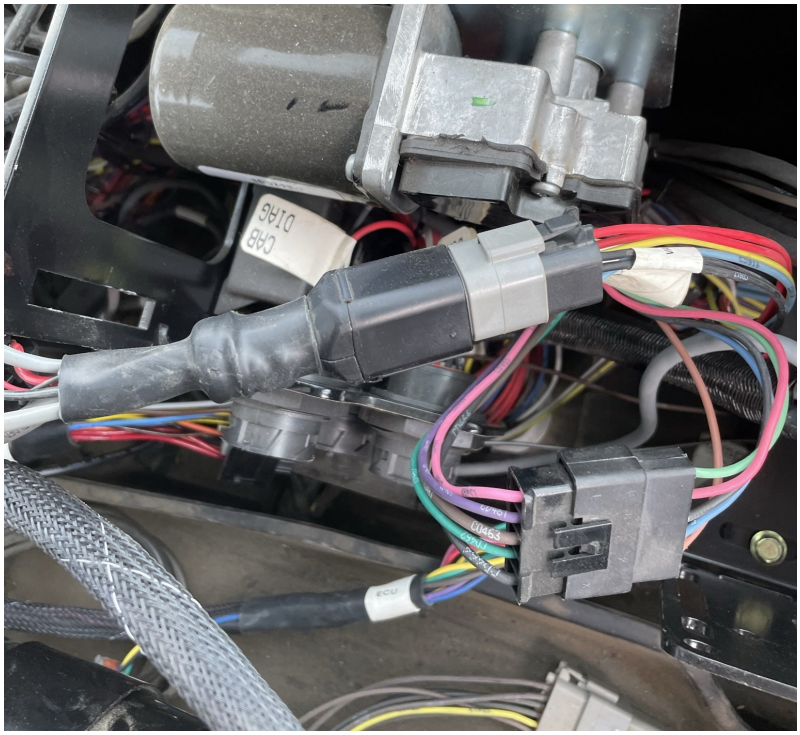


Figure 13

Initial Setup

When creating a new machine in your Maverix terminal, you will need to select “Hyd. Ratiometric” for your machines valve type. To setup the disengage sensor you will use the “Automatic Detection” feature. This will calibrate the disengage sensor and select “Analog (Volt.)” as the correct disengage sensor for your machine.

Troubleshooting & Diagnostics

To read the voltage values coming from the factory wheel angle sensor and or disengage pressure transducer, refer to the terminal user guide to see where to read sensor diagnostic information.

Wheel Angle Sensor

The factory wheel angle sensor has a voltage output range of 0-5 volts. You should be able to see the wheel angle voltage change as you turn the tractor from full left lock to full right lock. If the voltage doesn’t go up or down when turning the steering wheel then there may be a problem with the factory wheel angle sensor.

If the factory wheel angle sensor has become unreliable or ceases to work then alternative options may be able to be taken to not use the factory sensor. Contact Outback Guidance customer support for more details.

Disengage Pressure Transducer

The factory disengage pressure transducer has a voltage output range or 0-5 volts. You should be able to see the voltage value increase when turning the steering wheel then the voltage should decrease and stabilize after the steering wheel is no longer turned.