Installation Guide

Installation Kit: 911-8106-10

Accuguide Ready Required

Case IH		New Holland
Magnum 180 *	Magnum 260	T8.275
Magnum 190 *	Magnum 280	T8.300
Magnum 200	Magnum 290	T8.320
Magnum 210 *	Magnum 310	T8.330
Magnum 220	Magnum 315	T8.350
Magnum 225 *	Magnum 340	T8.360
Magnum 235	Magnum 370	T8.380
Magnum 240	Magnum 380	T8.390
Magnum 250		T8.410
		T8.420
		T8.435

* 2011 and Newer

Introduction

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.

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.

Introduction

* 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 mounting location Tier 4a models

This install covers two different possible steering ecu mounting locations depending on whether your tractor is a Tier 4 a or b model

For Tier 4a models Figure 1 pictured to the right shows the ECU mounting location that is behind the operators seat.

Figure 1

Attach ECU to bracket (item 1) before installing bracket onto the rear wall of the cab. Refer to Figure 3 on next page for correct ecu mounting hardware and bracket orientation.

It is required for the ECU to be mounted perpendicular to the ground.

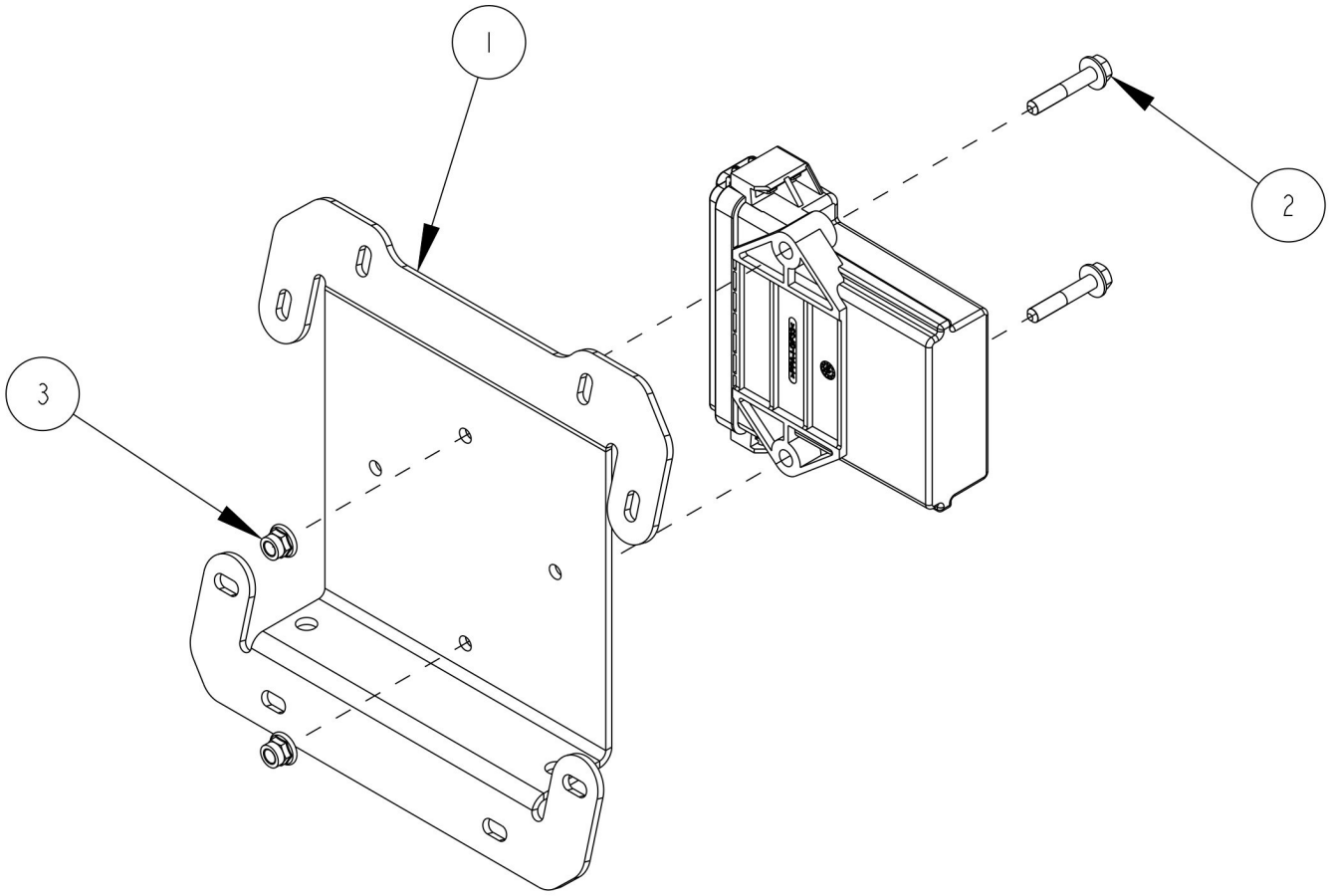
Note!! Attach ecu to 051-0465-10 cable before installing bracket onto mounting studs

Due to some variability in the mounting studs on the tractors rear wall, one of the holes in the bracket may need drilled out to a bigger size to fit into the mounting studs on the rear wall.

Figure 2

ECU mounting location Tier 4a models

INSTALLATION INSIDE OF CAB



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	640-0200-10	BRKT, ECU, EDM1, NAV, MX
2	2	675-1362-10	SCR,FLANGE,HEX,M6X1X35,ZP
3	2	676-1089-000	NUT,M6X1.0,NYLON,FLANGED,ZP

Figure 3

ECU mounting location Tier 4b models

For Tier 4b models Figure 4 pictured right shows the ECU mounting location that is behind the cab and above the SCV stack. Remove the rear access panel.

Figure 4

Locate the m5 mounting studs on the rear of the cab.

Attach ecu to bracket (item 1) with hardware (items 2&3) before installing bracket onto the rear wall of the cab. Refer to Figure 6 on next page for correct ecu mounting hardware and bracket orientation.

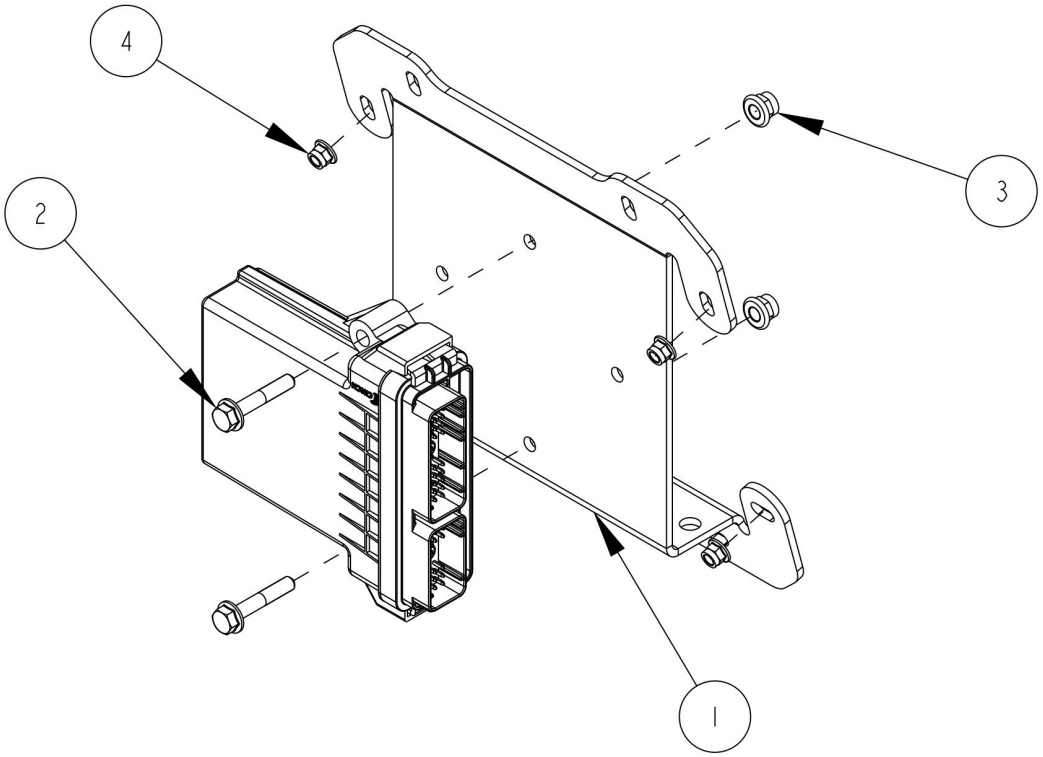
It is required for the ECU to be mounted perpendicular to the ground.

Install the ECU bracket (item 1) on the back wall of the cab. Secure the bracket with (qty 4) of M5 nuts (item 4).

Figure 5

ECU mounting location Tier 4b models

INSTALLATION OUTSIDE OF CAB



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	640-0200-10	BRKT, ECU, EDM1, NAV, MX
2	2	675-1362-10	SCR,FLANGE,HEX,M6X1X35,ZP
3	2	676-1089-000	NUT,M6X1.0,NYLON,FLANGED,ZP
4	4	676-1114-10	NUT,M5X0.8,NYLON,FLANGED,ZP

Figure 6

Cabling Diagram Tier 4a

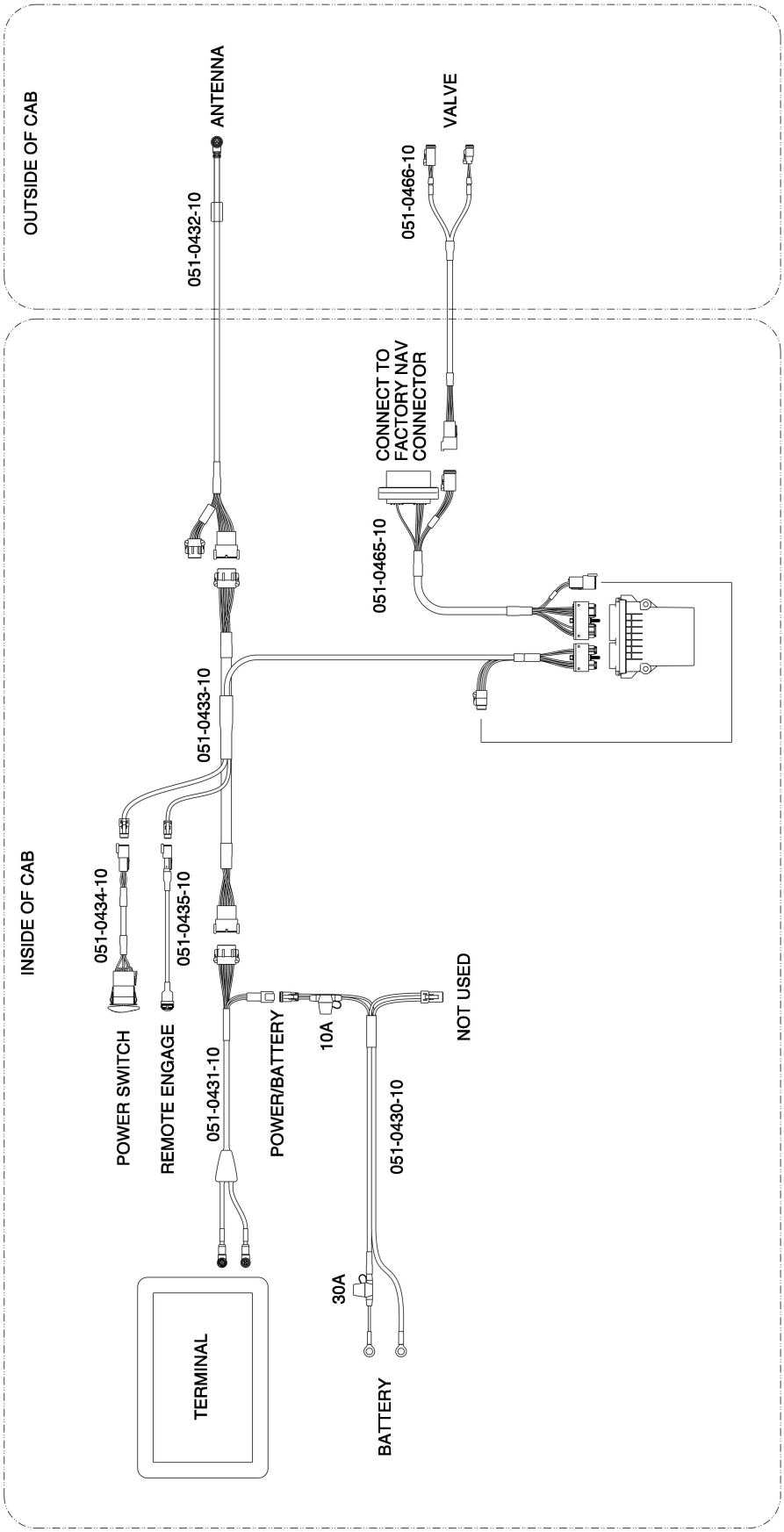


Figure 7

Cabling Diagram Tier 4b

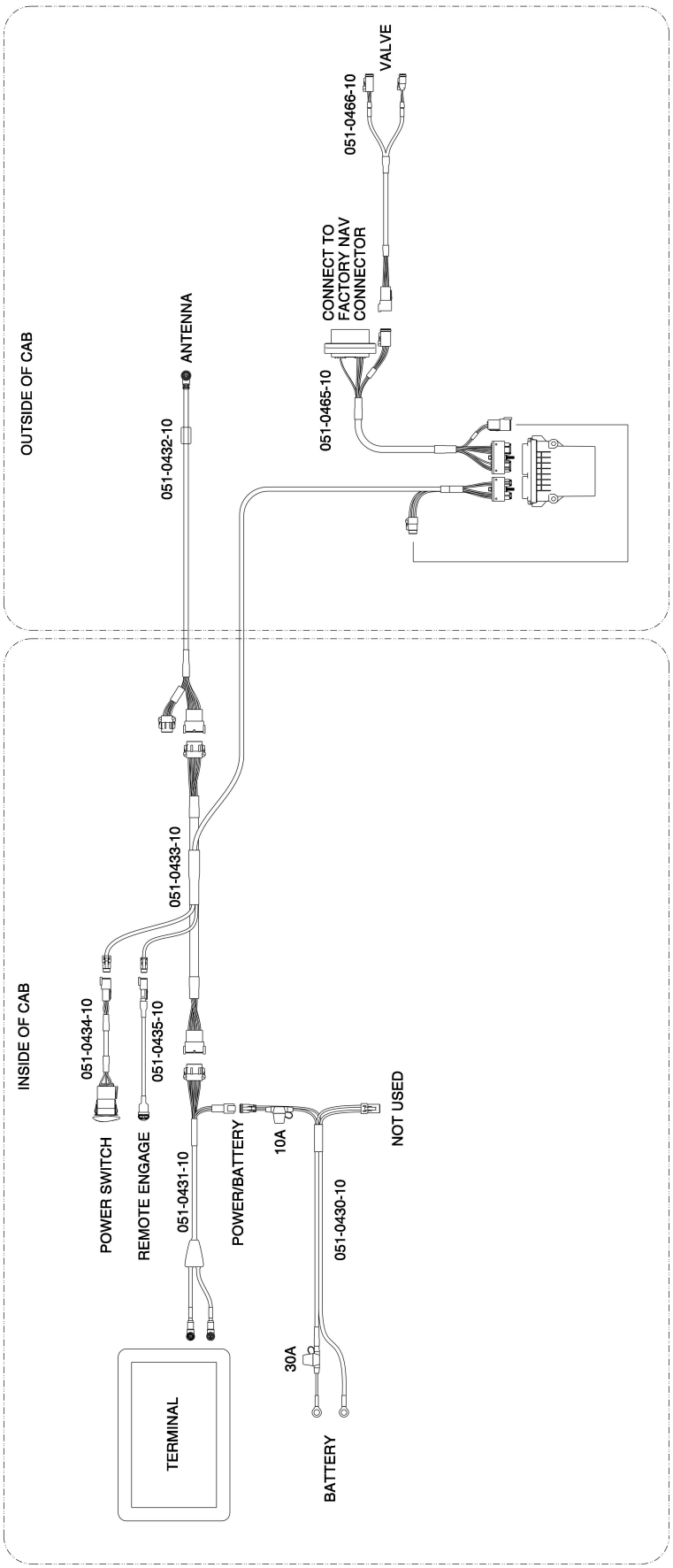


Figure 8

Connecting to Factory NAV harness

Locate the 40 pin factory NAV connector Figure 9 pictured right.

Figure 9 shows the Tier 4a harness location. For Tier 4b models (not shown) the 40 pin factory NAV connector will be near the bracket installation location on the outside rear of the cab.

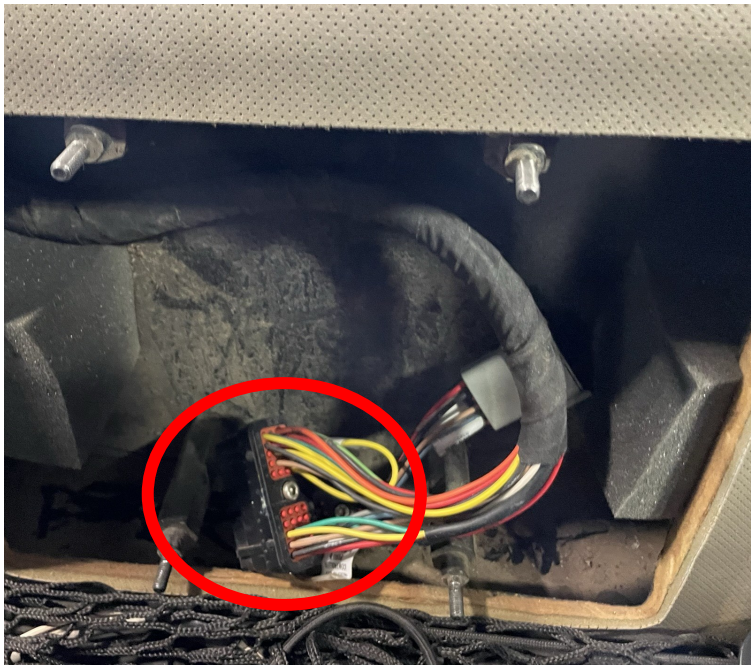


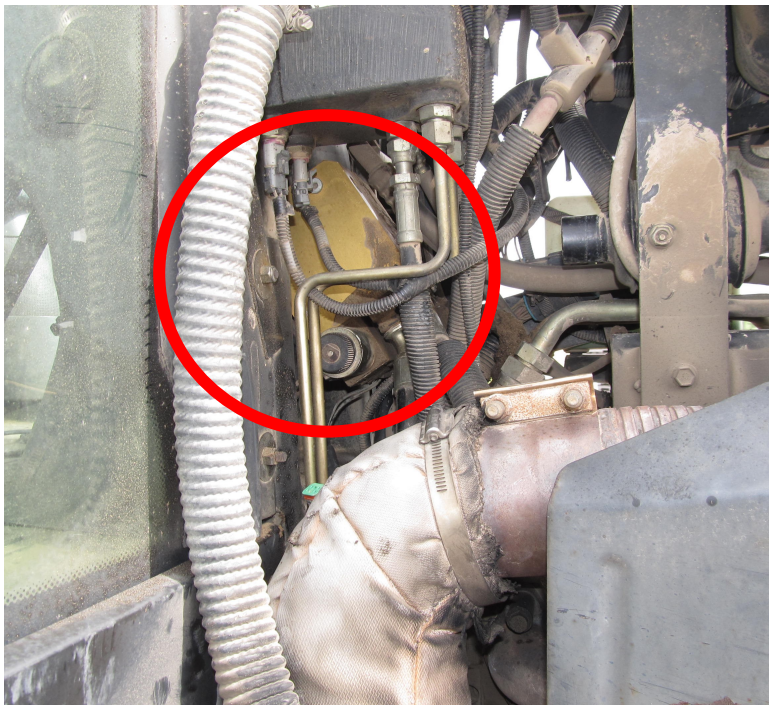
Figure 9

Connect the 051-0465-10 cable to the Factory Nav connector. Connect the other end of the 051-0465-10 cable to the eDrive M1 steering ECU and the 6pin CAN 2 connector.

Figure 10

Steering Valve Connections

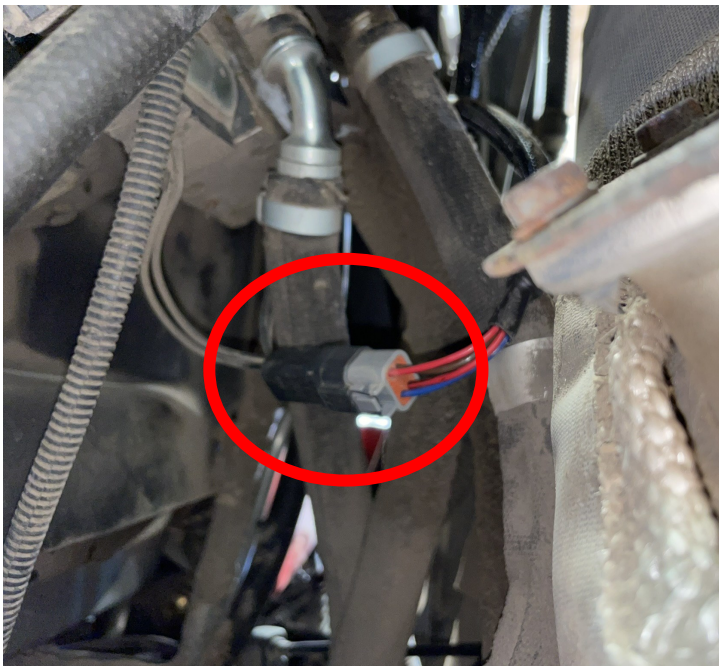
Open the hood and locate the factory steering valve that is located on the firewall.



Locate the enable solenoid on the side of the block. Plug in the 2 pin connector from the 051-0466-10 harness into the enable solenoid.

Steering Valve Connections

Next we will connect the steering valve's left/right coils. Connect the 4 pin connector from the 051-0466-10 harness to the left/right coils harness.



Connect all remaining harnesses as shown on pages 8&9 Figures 7&8.

Initial Setup

When creating a new machine in your Maverix terminal, you will need to select “Hyd. Proportional” 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 (Freq.)” 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 steering encoder, 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.

Steering Encoder Sensor

The factory steering encoder emits pulses used to disengage the machine. You should be able to see a number of pluses in the diagnostics screen increase when turning the steering wheel then the pulses should go to zero after the steering wheel is no longer turned.