Autopilot

AUTOMATED STEERING SYSTEM

INSTALLATION INSTRUCTIONS

Case IH, AccuGuide Ready

- Axial-Flow 5088 / 6088 / 7088
- FLX 3020 Titan / 3520 / 4020 / 4520
- Midrange Magnums 180 / 190 / 200 / 210 / 220 / 225 / 240
- Magnums 235 / 250 / 260 / 280 / 290 / 310 / 315 / 340 / 370 / 380
- Maxxum: 115 / 125 / 135 / 145 / 150
- MX Magnum: 180 / 190 / 210 / 215 / 230 / 245 / 255 / 275 / 285 / 305 / 335
- SPX 3320 Patriot: 3330 / 3340 / 4420 / 4430 / 4440
- Puma 115 / 130 / 140 / 145 / 150 / 155 / 160 / 165 / 170 / 180 / 185 / 195 / 200 / 210 / 215 / 220 / 225 / 230 / 240
- STX 275 Steiger: 280 / 325 / 330 / 335 / 375 / 380 / 385 / 425 / 430 / 435 / 450 / 480 / 485 / 500 / 530 / 535
- Steiger 350 / 370 / 400 / 420 / 450 / 470 / 500 / 540 / 550 / 580 / 600 / 620

New Holland, IntelliSteer Ready

- T6: T6.140 / T6.150 / T6.155 / T6.160 / T6.165 / T6.175 / T6.180
- T 7030 / 7040 / 7050 / 7060 /T7070
- T7: T7.170 / T7.175 / T7.185 / T7.190 / T7.200 / T7.210 / T7.220 / T7.230 / T7.235 / T7.245 / T7.250 / T7.260 / T7.270
- T 7510 / 7520 / 7530 / 7540 / 7550
- T 8010 / 8020 / 8030 / 8040 / 8050
- T 9020 / 9030 / 9040 / 9050 / 9060
- TG 210 / 215 / 230 / 245 / 255 / 275 / 285 / 305
- T8010 / T8020 / T8030 / T8040 / T8050
- T8: T8.275 / T8.300 / T8.320 / T8.330 / T8.350 / T8.360 / T8.380 / T8.390 / T8.420
- TJ 275 / 285 / 325 / 330 / 375 / 380 / 425 / 430 / 450 / 480 / 500 / 530
- T9: T9.390 / T9.435 / T9.450 / T9.480 / T9.505 / T9.530 / T9.560 / T9.565 / T9.600 / T9.615 / T9.645 / T9.670 / T9.700

Version 7.00
Revision B
June 2020
P/N 64425-28-E07-B

Trimble

Legal Notices

Agriculture Business Area

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This is the June 2020 release (Revision B) of the Autopilot Automated Steering System Installation Instructions, part number 64425-28-E07-B. It applies to version 7.00 of the Autopilot automated steering system. The following limited warranties give you specific legal rights. You may have others, which vary from state/jurisdiction to state/jurisdiction.

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Trimble warrants that this Trimble product and its internal components (the "Product") shall be free from defects in materials and workmanship and will substantially conform to Trimble's applicable published specifications for the Product for a period of one (1) year, starting from the earlier of (i) the date of installation, or (ii) six (6) months from the date of product shipment from Trimble. This warranty applies only to the Product if installed by Trimble or a distributor authorized by Trimble to perform Product installation services.

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Class B Statement – Notice to Users. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This

equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes and modifications not expressly approved by the manufacturer or registrant of this equipment can void your authority to operate this equipment under Federal Communications Commission rules.

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Recycling in Europe: To recycle Trimble WEEE, Call
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Or
Mail a request for recycling instructions to:
Trimble Europe BV
c/o Menlo Worldwide Logistics
Meerheide 45
5521 DZ Eersel, NL



Safety Information

Always follow the instructions that accompany a Warning or Caution. The information they provide is intended to minimize the risk of personal injury and/or damage to property. In particular, observe safety instructions that are presented in the following format:

⚠ **WARNING –** This alert warns of a potential hazard, which, if not avoided, can cause severe injury.

⚠ **CAUTION –** This alert warns of a hazard or unsafe practice which, if not avoided, can cause injury or damage.

NOTE – An absence of specific alerts does not mean that there are no safety risks involved.

Warnings

⚠ **WARNING –** When you are working on the vehicle's hydraulic systems, vehicle attachments that are suspended can drop. If you are working around the vehicle, you could suffer serious injury if an attachment dropped on you. To avoid this risk, lower all vehicle attachments to the ground before you begin work.

⚠ **WARNING –** If someone else attempts to drive the vehicle while you are working on or under it, you can suffer serious or fatal injuries. To avoid this possibility, install a lockout box on the battery terminal to prevent the battery from being reconnected, remove the key from the vehicle's ignition switch, and attach a "Do not operate" tag in the cab.

⚠ **WARNING –** Agricultural chemicals can pose serious health risks. If the vehicle has been used to apply agricultural chemicals, steam clean the vehicle to remove any chemical residue from the areas of the vehicle where you will be working.

⚠ **WARNING –** Vehicle cabs can be quite high in the air. To avoid potentially serious injury through falling from this height, always use the steps and handrails, and face the vehicle, when you enter or exit it.

Cautions

⚠ **CAUTION –** When the vehicle has been running, parts of the vehicle, including the engine and exhaust, can become extremely hot and can cause serious burns. To avoid burns, allow hot machine parts to cool before you begin working on them.

⚠ **CAUTION –** The system installation may bring you into contact with chemical substances, such as oil, which can cause poisoning. Wash your hands thoroughly after you finish working on the system.

⚠ **CAUTION –** Battery posts, terminals, and related accessories contain lead and lead compounds, which can cause serious illness. To avoid ingesting lead, wash your hands thoroughly after touching the battery.

⚠ **CAUTION –** Always wear protective equipment appropriate to the job conditions and the nature of the vehicle. This includes wearing protective glasses when you use pressurized air or water, and correct protective welder's clothing when welding. Avoid wearing loose clothing or jewelry that can catch on machine parts or tools.

⚠ **CAUTION –** Parts of the vehicle may be under pressure. To avoid injury from pressurized parts, relieve all pressure in oil, air, and water systems before you disconnect any lines, fittings, or related items. To avoid being sprayed by pressurized liquids, hold a rag over fill caps, breathers, or hose connections when you remove them. Do not use your bare hands to check for hydraulic leaks. Use a board or cardboard instead.

⚠ **CAUTION –** Do not direct pressurized water at:
- Electronic or electrical components or connectors
- Bearings
- Hydraulic seals
- Fuel injection pumps
- Any other sensitive parts or components

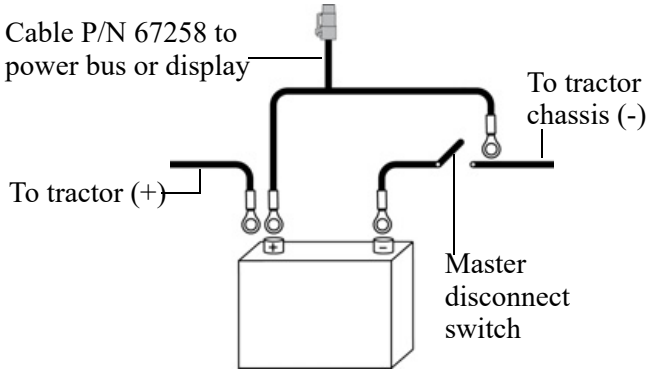


Set the hose pressure as low as practicable, and spray at a 45° to 90° angle. Keep the nozzle of the power washer away from the machine at the distance recommended by the manufacturer.

⚠ **CAUTION –** To prevent damage to the system, make sure that no wires or hoses interfere with or catch on any mechanical linkages, or contact any machine parts that get hot.

⚠ **CAUTION –** If the vehicle has a master electrical disconnect, make sure the basic power cable (P/N 67258) is *not* directly attached to the battery terminal that is disconnected by the master switch - the negative pole in this example.

Attach this terminal side just past the main disconnect so that it is as close as possible to the battery but still gets disconnected when the master disconnect is turned off. Failure to do so can result in damage to the display.



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1

Introduction

- Technical assistance
- Manual system upgrade to the Autopilot system
- Required components
- Preparing the vehicle for installation

This manual describes how to install the Trimble® Autopilot™ automated steering system.

Even if you have used another GNSS (Global Navigation Satellite System), such as the United States' GPS (Global Positioning System), before, spend some time reading this manual to learn about the special features of this product. If you are not familiar with GNSS, go to the Trimble website (www.trimble.com) for an interactive look at Trimble and GNSS.

Technical assistance

If you have a problem and cannot find the information you need in the product documentation, contact Trimble technical support:

1. Log into http://agpartners.trimble.com.
2. Click the **Feedback** link at the right of the screen. A form appears.
3. Complete the form and then click **Submit Feedback**.

Manual system upgrade to the Autopilot system

Displays

Retain
GFX-750/XCN-1050: P/N 121000-XX
Power Cable GFX-750/XCN-1050: P/N 110551
Base power cable: P/N 67258
NAV-900 Guidance receiver: P/N 108993-05
GFX-750 to NAV-900 Comms cable: P/N 110540

Required components

Kits required	Special tools
Platform kit: P/N 64425-28	Deutsch DT pins and crimp tools
	Deutsch DTM pins, sockets, and crimp tools

Antenna mounting kits

Kits required
P/N 111339: NAV-900, Mount, CNH Quick release adapter (included in P/N 64425-28)
Optional Spar mounts (must measure application for proper part number)
P/N 53676: Bracket, GPS Spar 36.5"– 46.5"
P/N 55348: Bracket, GPS Spar 45"– 55"
P/N 55349: Bracket, GPS Spar 27.5"– 37.5"
P/N 64898: Bracket, GPS Spar 16.5"– 28.5"
P/N 66774: Bracket, GPS Spar 54"– 64"

Accessory kits

Kits required
Remote engage switch assembly – standard Euro: P/N 57227-10
Remote engage switch assembly – full Euro: P/N 57227-20
Remote engage foot pedal: P/N 57259

Preparing the vehicle for installation

NOTE – The left and right sides of the vehicle are referenced while standing behind the unit, facing the normal direction of travel.

1. Park the vehicle on a hard, level surface. Block the front and rear wheels.
2. Align the steering straight ahead. On an articulated vehicle, install the articulation locks.
3. Remove all dirt and debris from the areas of the vehicle where the Autopilot system will be installed.
4. Open all kit boxes and check the contents of the box against the packing list/s. Lay all of the parts out on a clean workbench.

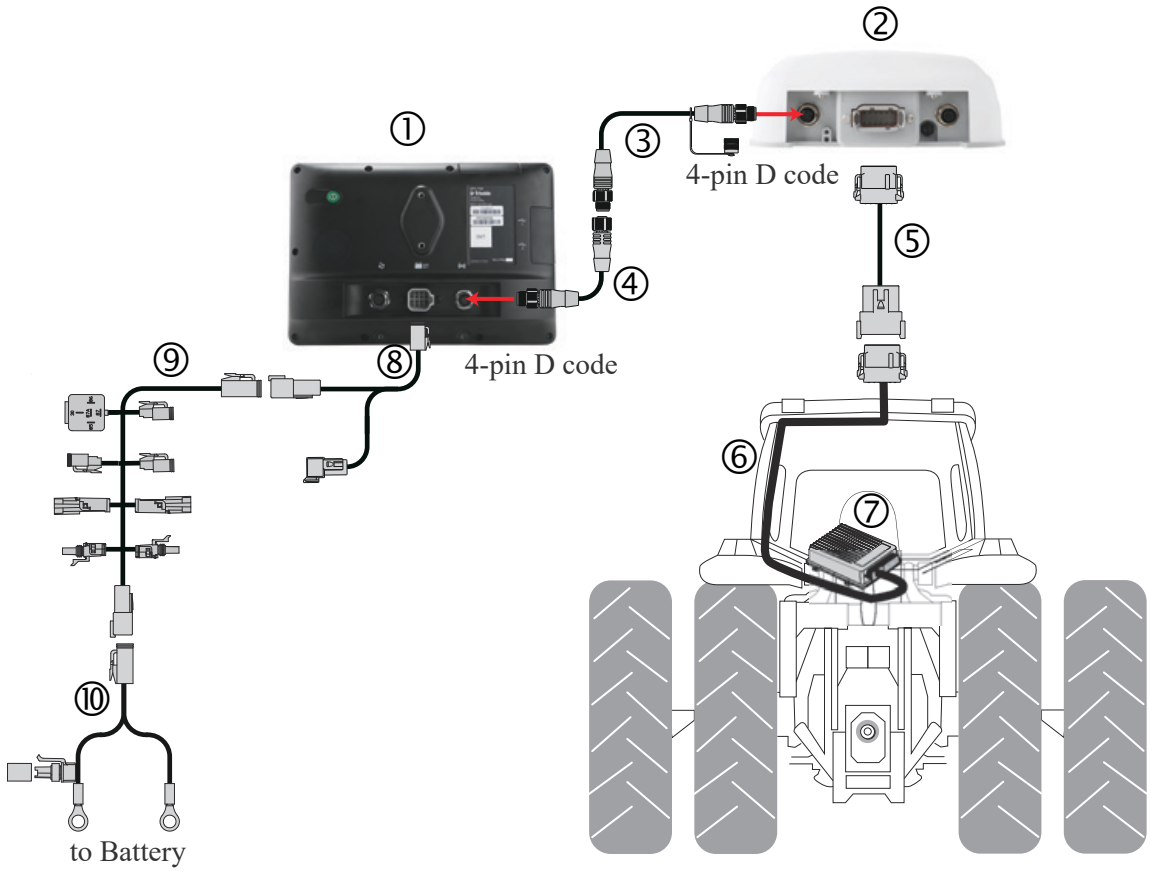
2

Display Installation

- GFX-750/XCN-1050 display: Components
- GFX-750/XCN-1050 display: Preparation
- GFX-750/XCN-1050 display: Installation
- GFX-750/XCN-1050 display: Installing the wiring harness

GFX-750/XCN-1050 display: Components

This graphic shows the Autopilot system using NavController III as an external guidance device.



Item	Description	Trimble part number
1	GFX-750 display, with PIQ App	
2	NAV-900 Guidance controller	
3	Cable Assy, GFX-750/XCN-1050 to NAV-900, Power/Ethernet (BRR), 5 m	110540
4	Cable Assy, GFX-750/XCN-1050 to NAV-900, Power/Ethernet (BRR) Extension, 2.5 m. Optional extension for large vehicles.	112082
5	Cable Assy, NAV-900, CNH AGR non CAN	114705
6	CNH vehicle factory harness	
7	NavController III	55566-00
8	Cable Assy, GFX-750/XCN-1050, Power to display, CAN, 2.5 m	110551
9	Cable Assy, GFX-750/CFX-750/FM-750/XCN-1050/FmX/FM-1000 Power with Relay and Switch (Acc) - optional	67259
10	Cable Assy, GFX-750/CFX-750/FM-750/XCN-1050/FmX/FM-1000 Basic Power, 4 m	67258

GFX-750/XCN-1050 display: Preparation

The GFX-750/XCN-1050 display utilizes the Ram mount system.



Attach the diamond based ram mount to the back of the display using the provided fasteners



GFX-750/XCN-1050 display: Installation

Step 1

Start by determining where the display will be located in the vehicle and mount the base end ram mount ball.

NOTE – Steel bracketry is not included.



Step 2

Loosen the clamp arm sufficiently to get over both the ball on the display, as well as the ball on the base mount.





Step 3

Position the display as desired, with good view-ability by the operator, and then tighten the handle to fix in place.



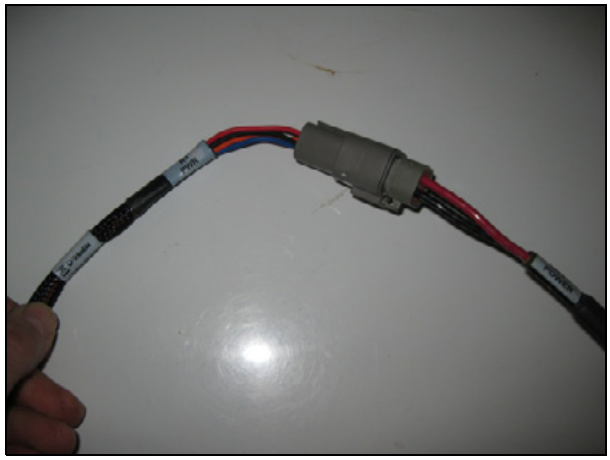
GFX-750/XCN-1050 display: Installing the wiring harness

The GFX-750 display requires a nominal 12 volt power source. The P/N 67259 cable has ring terminal leads for connecting to a battery or other cable mount point.

⚠ **WARNING –** If the machine has a master electrical disconnect, ensure that the display/receiver will be disconnected from the battery when the master disconnect is used. Failure to do so may result in hardware damage and void warranty. Additionally, it is suggested to utilize power terminals located within the cab of the vehicle that ground in the same location as the cab components to avoid ground shifts between the display and any vehicle ECUs.

Step 1

Connect the other 4-pin Deutsch connector of cable P/N 110551 to the P/N 67258 base power cable.



Step 2

Connect the 6-pin DT power/CAN cable P/N 110551 to the middle port of the display.



Step 3

Connect the 4-pin M12 connector to the 4-pin receiver connector. Note the Keying and number of pins.





3

Antenna / Receiver Installation

- Installing the NAV-900 guidance receiver
- Connecting an external radio

Installing the NAV-900 guidance receiver

Step 1

Locate the NAV-900 controller and the CNH OEM mounting plate, P/N 111339.

Step 2

Invert the NAV-900 and use the 4 provided countersunk screws to attach the plate to the bottom of the NAV-900.

Tighten the four M6 fasteners to 10.0 ± 0.5N-m (7.0 ± 0.4ft-lbs).





Step 3

Slip one side of the mounting plate over the OEM receiver mounting plate tang.



Step 4

Insert the hook on the overcenter latch into the other side of the mounting plate. Latch the NAV-900 controller into place.





Step 5

Locate the P/N 114705 adapter cable and insert into the 12-pin Deutsch connector on the NAV-900 controller.



Step 6

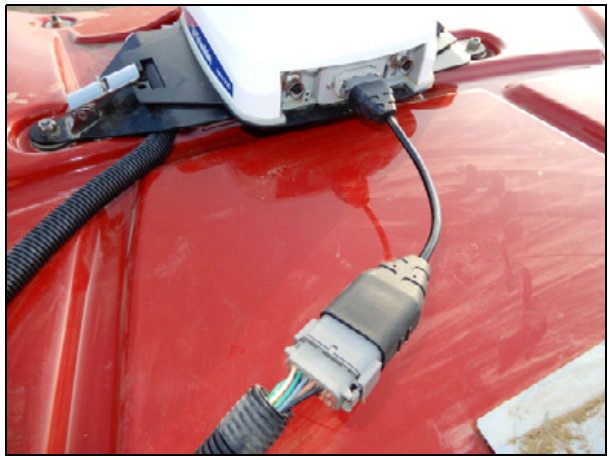
Locate the factory receiver inteface cable.





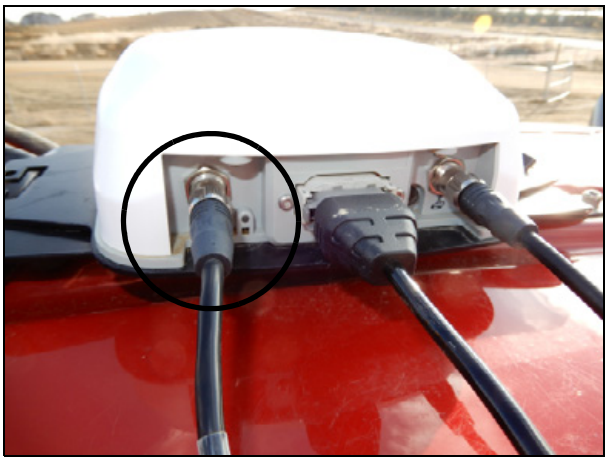
Step 7

Connect the P/N 114705 adapter cable to the factory receiver cable.

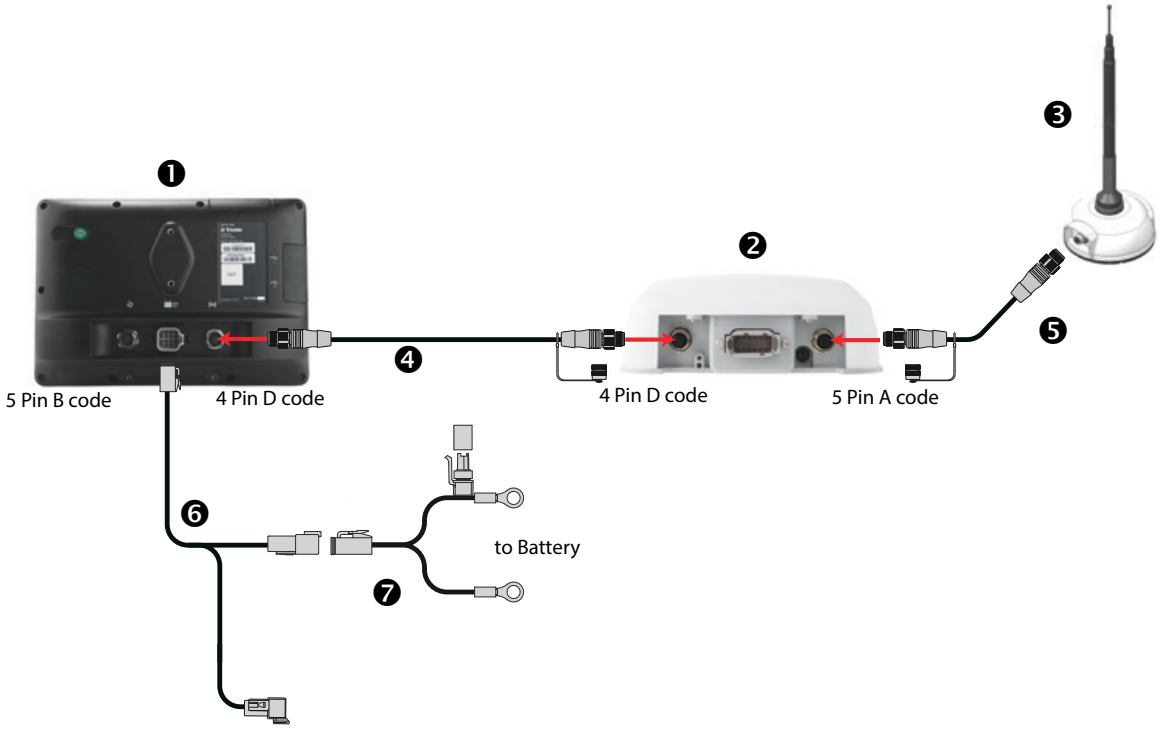


Step 8

Connect P2 of the P/N 110540 cable to the 4-pin M12 connector on the left side of the NAV-900 controller.



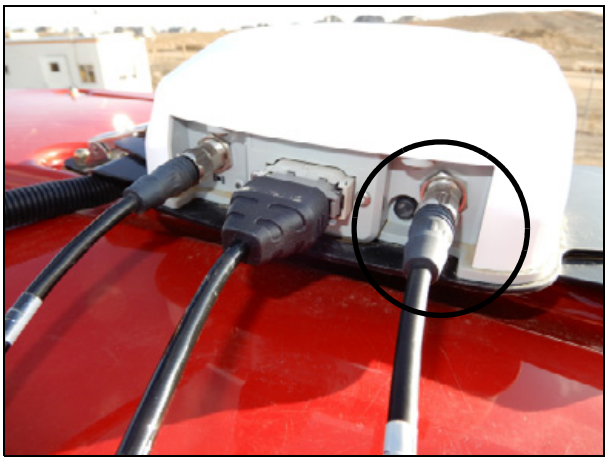
Connecting an external radio



Item	Description	Trimble part number
1	GFX-750 display, with PIQ App	
2	NAV-900 Guidance Controller	108993-05
3	Ag-820 radio kit, 430-450 MHz Ag-820 radio kit, 450-470 MHz Ag-820 radio kit, 900 MHz	123500-44 123500-46 123500-90
4	Cable Assy, NAV-900 to in-cab RTK Radio, DTM06, 4.5 m	110540
5	Cable Assy, NAV-900 to Ag-820	113295
6	Cable Assy, GFX-750/XCN-1050, Power to display, CAN, 2.5 m	110551
7	Cable Assy, GFX-750/CFX-750/FM-750/XCN-1050/FmX/FM-1000 Basic Power, 4 m	67258

Step 1

Connect the radio interface cable (P/N 113295) to the right 5-pin M12 connector on the NAV-900 controller.



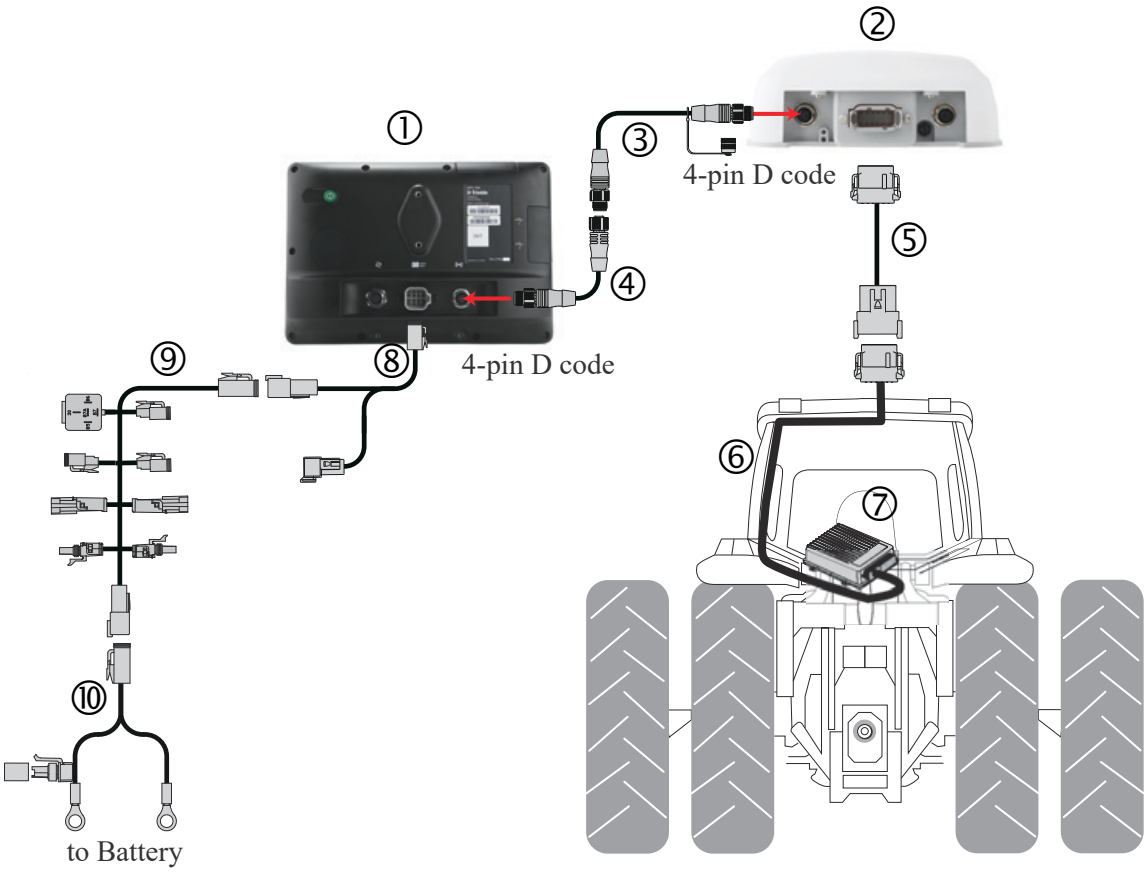
4

Controller Installation

- GFX-750/XCN-1050 factory ready CNH vehicle
- Cable overview
- Installing the controller
- Configuring CAN jumper for an STX/TJ 2006 model
- Configuring CAN jumper for an STX/TJ 2007 model

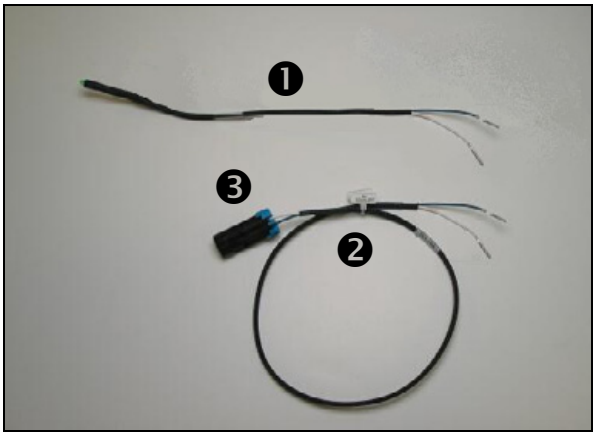
⚠ **WARNING –** To avoid potentially serious personal injury or illness, and to prevent damage to equipment, make sure that you read and understand the Safety Information.

GFX-750/XCN-1050 factory ready CNH vehicle



Item	Description	Trimble part number
1	GFX-750 display, with PIQ App	
2	NAV-900 Guidance controller	
3	Cable Assy, GFX-750/XCN-1050 to NAV-900, Power/Ethernet (BRR), 5 m	110540
4	Cable Assy, GFX-750/XCN-1050 to NAV-900, Power/Ethernet (BRR) Extension, 2.5 m. Optional extension for large vehicles.	112082
5	Cable Assy, NAV-900, CNH AGR non CAN	114705
6	CNH vehicle factory harness	
7	NavController III	55566-00
8	Cable Assy, GFX-750/XCN-1050, Power to display, CAN, 2.5 m	110551
9	Cable Assy, GFX-750/CFX-750/FM-750/XCN-1050/FmX/FM-1000 Power with Relay and Switch (Acc) - optional	67259
10	Cable Assy, GFX-750/CFX-750/FM-750/XCN-1050/FmX/FM-1000 Basic Power, 4 m	67258

Cable overview



Item	Description
1	Status LED
2	Sonalert jumper
3	Sonalert connector

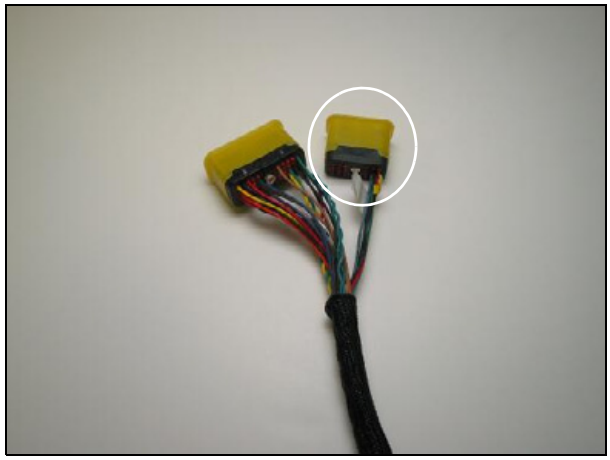
NOTE – You may find it easier to establish the cable connections to the controller before you install the controller. Read through the sections in this chapter and then decide the order in which you wish to proceed. If you attach the cables first, ensure that you feed the cables through any necessary routes.

All controllers

NOTE – The installation of the Sonalert and LED light is required for all installations as it provides important audible feedback for the operator. Make sure and mount the Sonalert in a location to allow for adequate indication to the operator.

Step 1

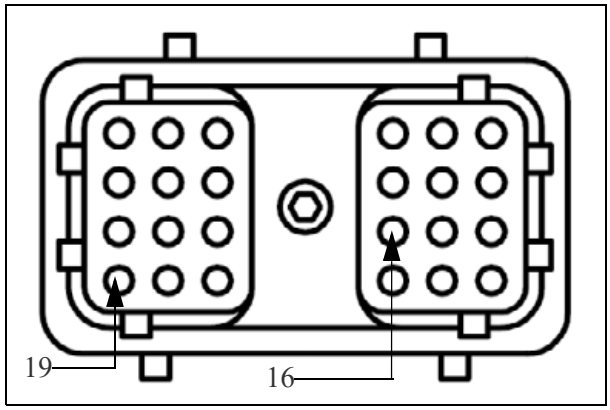
Locate the 24-pin Deutsch connector at the end of the guidance cable.



Step 2

Remove the plastic seals in pins 16 and 19

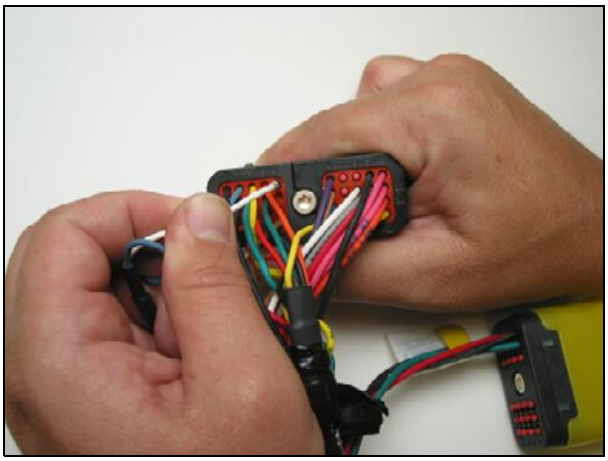
NOTE – The cavity numbers are embossed on the connector and read left to right and top to bottom.



Wire ID#	Conn term Guidance	Conn term Jumper	Description
1 (gray)	P2-16	LED-A	Sensor 12 V OUT
2 (brown)	P2-19	LED-B	Status LED

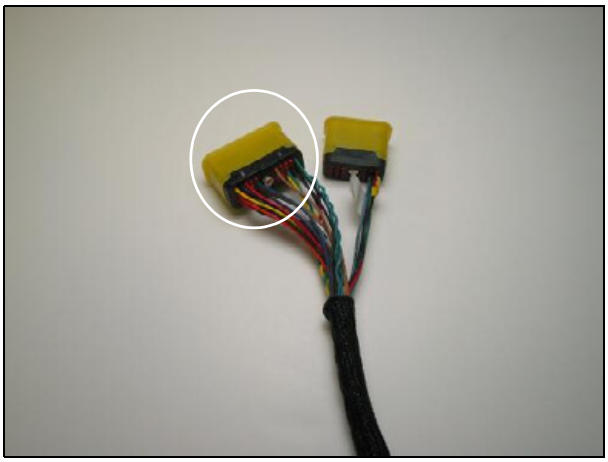
Step 3

Use the table above as a guide to insert the wire ends on the supplied status LED jumper.



Step 4

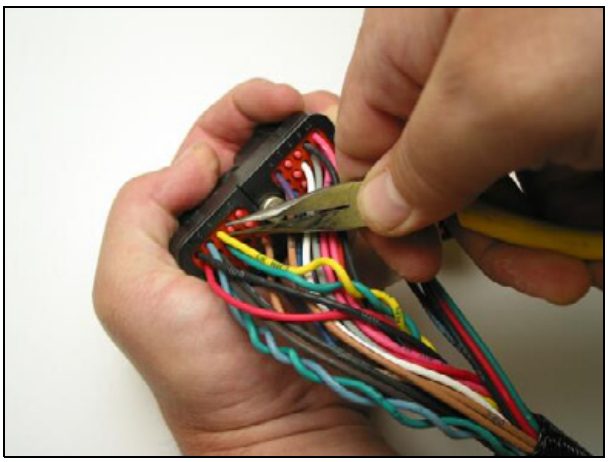
Locate the 40-pin Deutsch connector at the end of the guidance cable.



Step 5

Remove the plastic seals in pins 5 and 15.

Use the table below as a guide to insert the loose wires on the Sonalert jumper (P9) into the 40-pin connector.



Wire ID#	Conn term Guidance	Conn term Jumper	Description
4 (white)	P1-5	P9-A	Sonalert V+
5 (gray)	P1-15	P9-B	Sonalert GND

Installing the controller

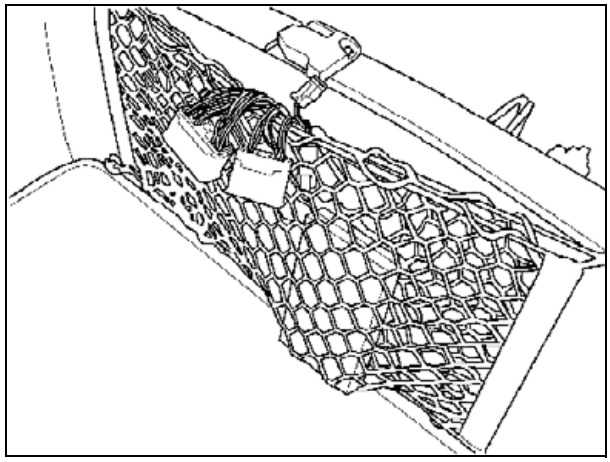
Procedure 1 (MX Magnum, Magnum T4A, TG, T8000, T8 T4A, SPX)

This procedure applies to the following:

- CIH: MX Magnum up to tier 4A, Midrange magnum up to Tier 4A
- NH: TG up to tier 4A, T8000, T8.xxx up to tier 4A and
- CIH: SPX 3320 / 3330 only

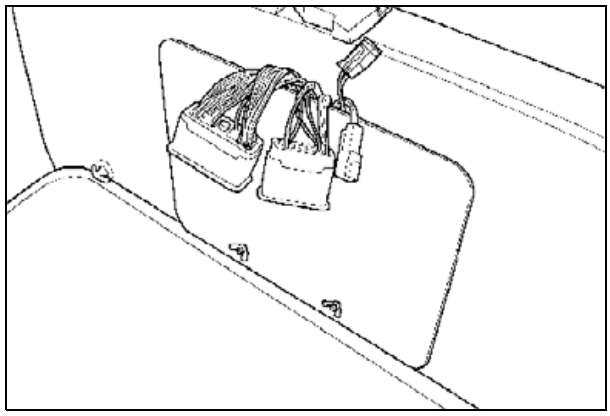
Step 1

Remove the net from the rear cab wall.



Step 2

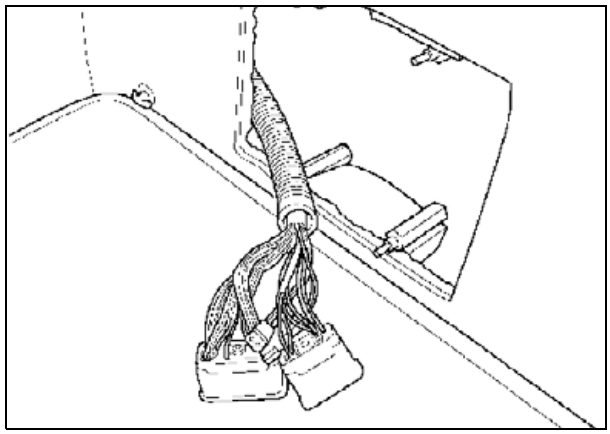
Remove the four wing nuts from the rear controller cover and remove the cover.



Step 3

Remove the protective covers from the auto-guidance connectors.

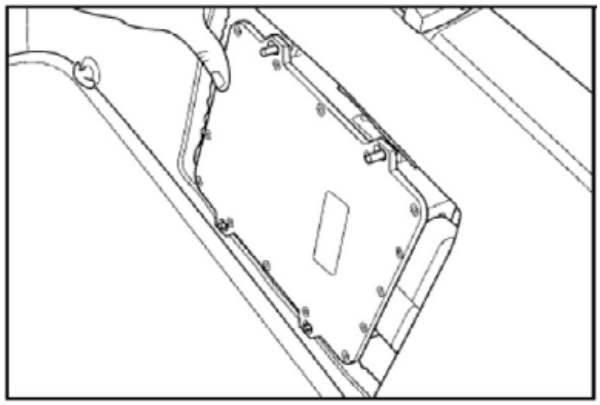
Continue with All controllers, page 28.



Step 4

Attach the controller to the machine on the 4 standoffs as shown.

Reinstall the cover plate and net.



Controller orientation

Roll: 106

Pitch: 0

Yaw: 90

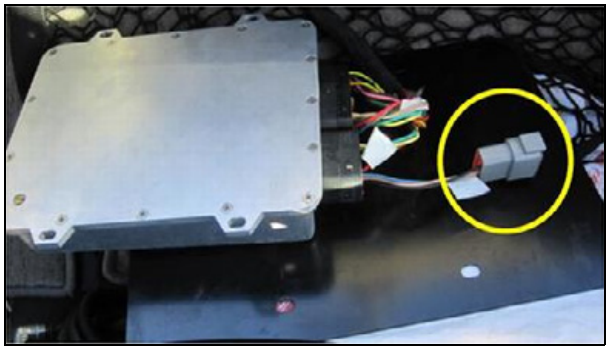
Diagnostic connectors

The **diagnostic connector** is a 12-pin Deutsch receptacle is contained within the mounting cavity.

Pin 2 -RS232 TX

Pin 3 -RS232 RX

Pin 5 -RS232 GRND



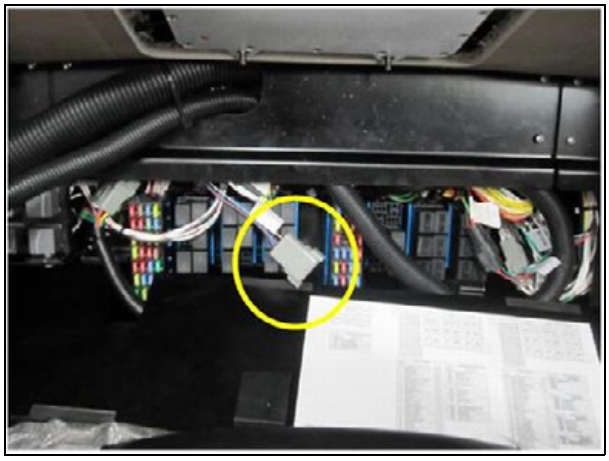
The **SPX 3xxx diagnostic connector** is a 12-pin Deutsch receptacle contained behind the seat, under the fuse panel.

To access it, remove the rubber mat that covers it.

Pin 2 -RS232 TX

Pin 3 -RS232 RX

Pin 5 -RS232 GRND



Procedure 2 (Magnum, T8 Tier 4B)

This procedure applies to the following:

- CIH: MX Magnum up to tier 4B, Midrange Magnum Tier 4B
- NH: T8.xxx Tier 4B

Step 1

Remove the rear cover behind the cab in front of the remote stack.



Step 2

Lift up the rubber flap to access the controller mounting area.



The controller will be mounted in the location shown on the rear cab of the machine.



Step 3

Connect the two connectors to the NavController as shown.



Step 4

Assemble the NavController to the machine using the four studs on the back wall of the machine.



Step 5

Use four 8 mm nuts to assemble the controller to the machine as shown.



Controller orientation

Roll: 0

Pitch: 106

Yaw: 0

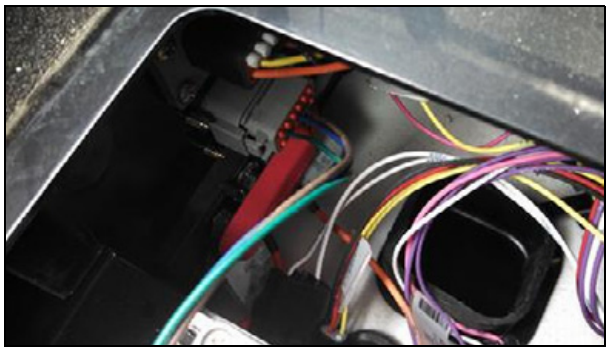
Diagnostic connectors

The **diagnostic connector** is a 12-pin Deutsch receptacle mounted in the electronics compartment behind the seat (under the mat) on the back left of the vehicle.

Pin 2 -RS232 TX

Pin 3 -RS232 RX

Pin 5 -RS232 GRND



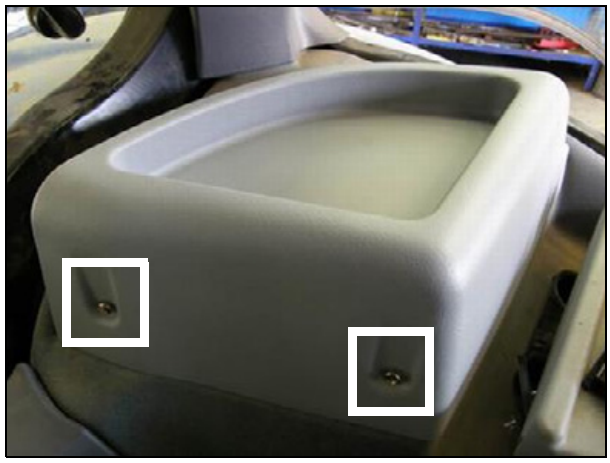
Procedure 3 (Puma, T7000, T7)

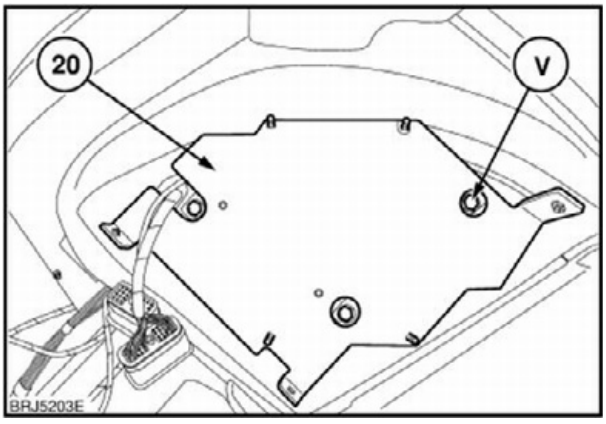
This procedure applies to the following:

- CIH: Puma
- NH: T7000, T7.xxx

Step 1

At the left rear of the cab remove the cover to access the NavController mounting position.





Step 2

Assemble the NavController to the mounting plate as shown.



Controller orientation

Roll: 0

Pitch: 0

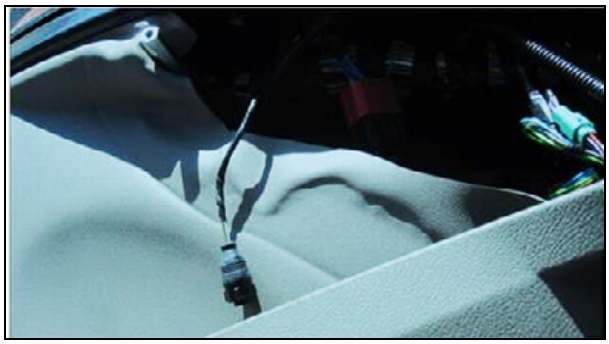
Yaw: 318

Diagnostic connectors

The **CIH Puma Tier 4A and earlier diagnostic connector** is located under the cover in the right rear of the cab. Remove the screws to access the connector.

The connector is the Round DC conexal.





The **CIH Puma Tier 4B diagnostic connector** is a 12-pin Deutsch receptable contained under the fuse box at the lower right of the cab.

Pin 2 -RS232 TX

Pin 3 -RS232 RX

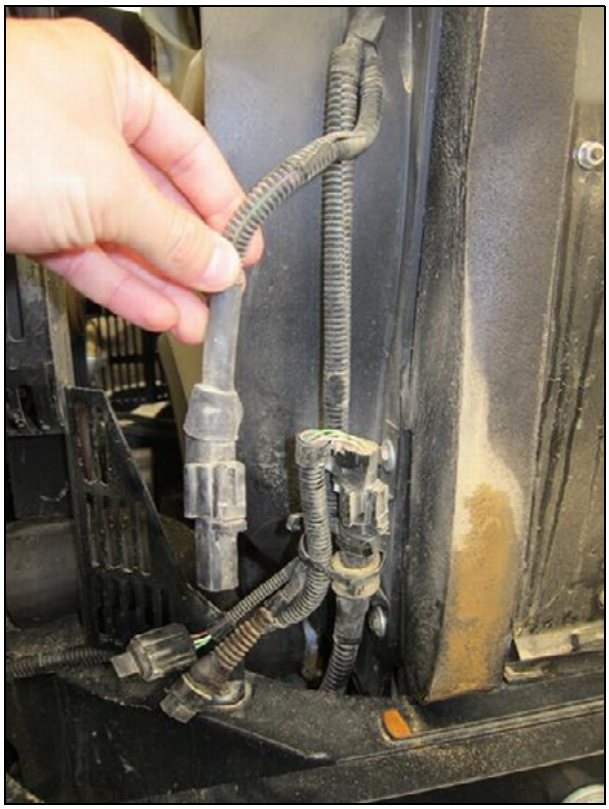
Pin 5 -RS232 GRND



Additional notes for Puma, T7xxx

On these vehicles, there is a steering sensor cabling connection that may need to be made for guidance to work.

On the right front of the engine, remove the plug from the connector and connect it to the present mating connector.



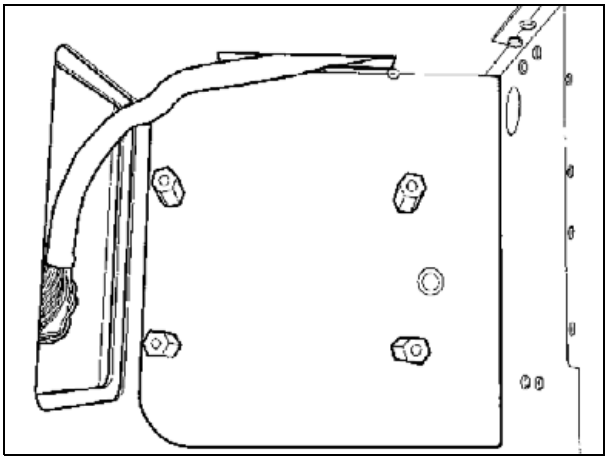
Procedure 4 (SPX, FLX, STX, TJ9000)

This procedure applies to the following:

- CIH STX tier 3 and before
- FLX, SPX4420
- NH: TJ, T9000 Tier 3 and before

Step 1

Open the instructor seat and remove the tray. Unscrew the four hex spacers from the cab floor.



Step 2

Locate the guidance harness under the instructor seat.

Continue with All controllers, page 28.



Step 3

Assemble the controller to the location shown with the connector facing right.



Controller orientation

Roll: 0

Pitch: 0

Yaw: 270

Diagnostic connectors

The **diagnostic connector** is in the fuse panel under the arm rest; The connector is the DC conexal connector.



Procedure 5 (Steiger, T9)

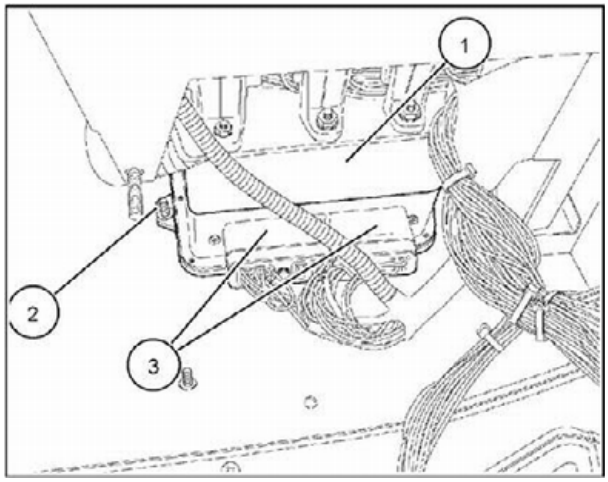
This procedure applies to the following:

- CIH STX Steiger tier 4a, STX Steiger tier 4B
- NH: T9 Tier 4A, T9 Tier 4B

Step 1

On these machines the NavController should be located under the buddy seat in the location shown.

Install the controller with the fins facing up and the connector on the left side of the machine.



Step 2

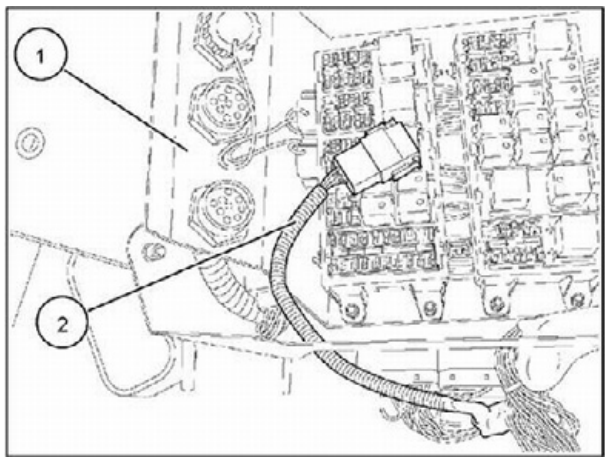
The diagnostic connector is right next to the controller

The diagnostic connector is a 12-pin Deutsch connector.

Pin 2 -RS232 TX

Pin 3 -RS232 RX

Pin 5 -RS232 GRND



Controller orientation

Roll: 0

Pitch: 0

Yaw: 90

Additional notes

- On some machines the steering is backwards of commands; you must change the PLA and PLB TAP values. (One should always be 1 and the other 0.)
- For CAN machines: There is a road mode and a field mode as commanded by the Pro700 when using Factory install (CNH NAV). For the Autopilot system to function correctly it may not be in Road mode.

Procedure 7 (New Holland Guardian Sprayers)

This procedure applies to the following:

- New Holland Guardian sprayers

Step 1

In the cab of the machine locate the storage bin near the driver's seat.

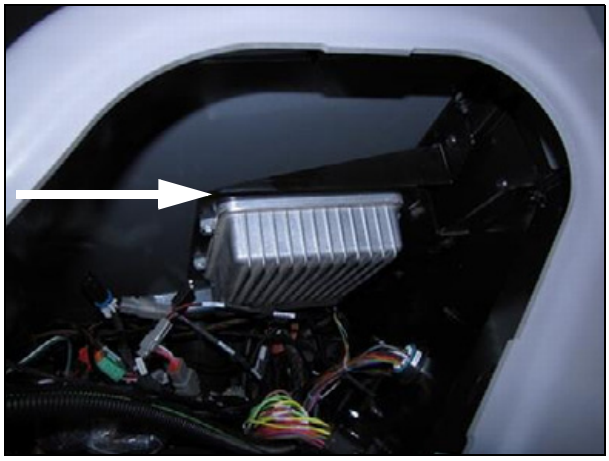


Step 2

Remove the bin to access the controller mounting area.



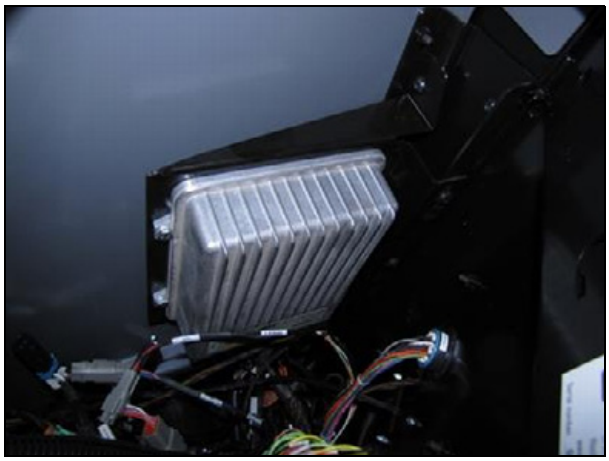
The controller will be mounted to the existing bracket attached to the machine in the location shown



Step 3

Attach the controller to the bracket on the machine using the provided bolts.

The connector on the NavController should face down.





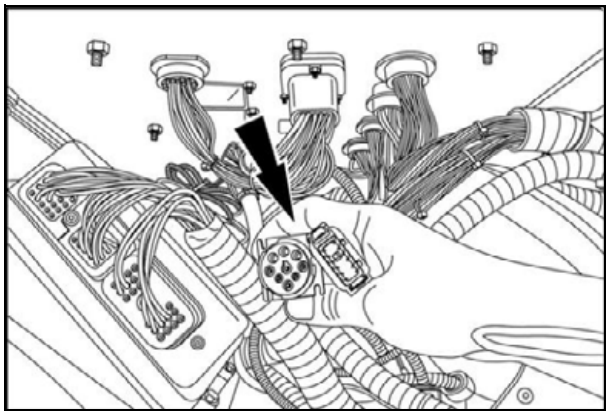
Diagnostics connector

The diagnostic cable connection is located inside the console near the service tool connector. A DE9 to 12 pin Deutsch plug adapter is required.

Pin 2 -RS232 TX

Pin 3 -RS232 RX

Pin 5 -RS232 GRND



Procedure 2 (23XX / 25XX combine)

This procedure applies to the following:

- CIH: 23XX and 25XX combines

Step 1

Install the controller behind the right hand service door, with the fins forward and the connector facing down.



Step 2

The diagnostic connector is below the P/N 54602 harness.

The diagnostics connector is the same as standard Trimble harnessing: DE9 on the 24-pin connector of the NavController harness.

Controller orientation

Roll: 0

Pitch: 90

Yaw: 180

Additional notes

- There are two methods of manual override: Flow switch or a toothed gear in the steering column. A different profile exists for each.

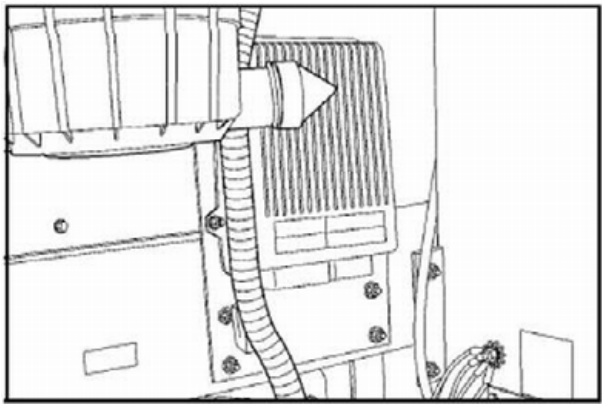
Procedure 3 (x088 combines)

This procedure applies to the following:

- CIH: x088 combines

Step 1

Install the controller behind the right-hand service door, with the fins forward and the connector facing down.



Controller orientation

Roll: 0

Pitch: 90

Yaw: 180

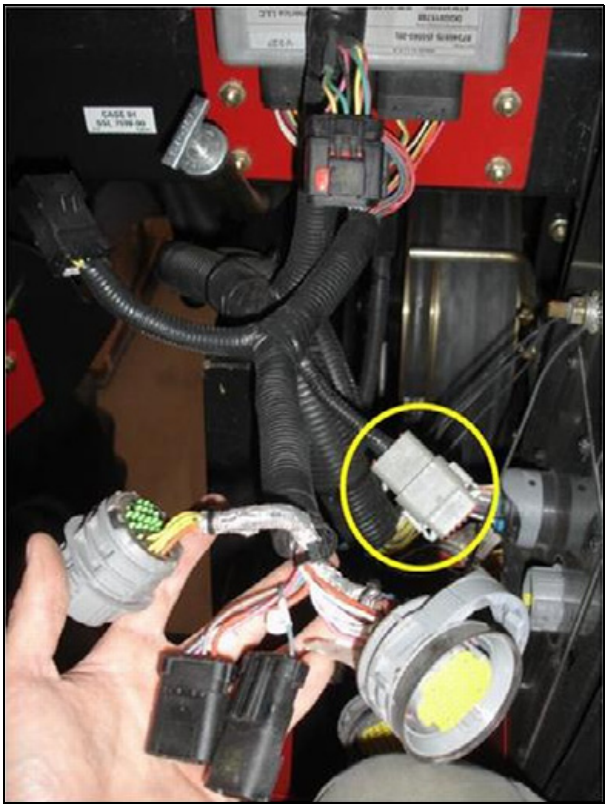
Diagnostic connectors

The **diagnostic connector** is a 12-pin Deutsch connector right below the NavController.

Pin 2 -RS232 TX

Pin 3 -RS232 RX

Pin 5 -RS232 GRND



Additional notes

- Pro600/Pro700 must be setup for correct GNSS configuration.

Configuring CAN jumper for an STX/TJ 2006 model

NOTE – If the STX/TJ model has a VT harness installed, skip this section.

Step 1

If no VT harness is present, remove the jumper from connector 377F, located in the electrical bay to the right of the seat.



Step 2

Move the jumper to connector 214F, which is located under the liner and filter behind the cab seat.

Connect the two gray 12-pin DTM connectors in the fuse panel area together.



Step 3

Verify the two black 8-pin connectors in the fuse panel area are also connected together.



Configuring CAN jumper for an STX/TJ 2007 model

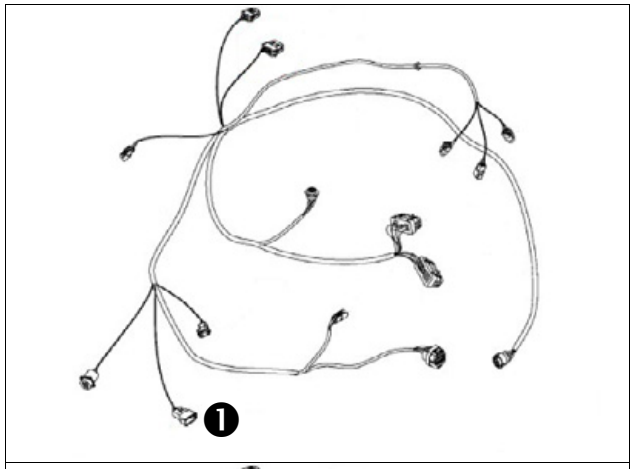
Perform these steps if the STX/TJ is a 2007 model with a serial number >= Z7F105338.

NOTE – If the STX/TJ model has an AFS Pro 600/IntelliView Plus II display harness installed, skip this section.

The #2 connector on the CNH inside auto-guidance cab harness may be difficult to find. It can be located in the right rear corner of the electrical bay to the right of the seat.

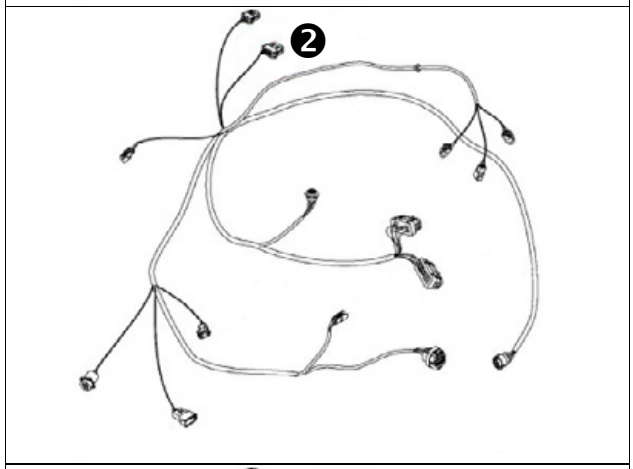
When the 4WD is provided as auto-guidance-ready, the inside auto-guidance harness connector ❶ is left unplugged.

The matching tractor harness connection has a CAN Bus jumper installed.



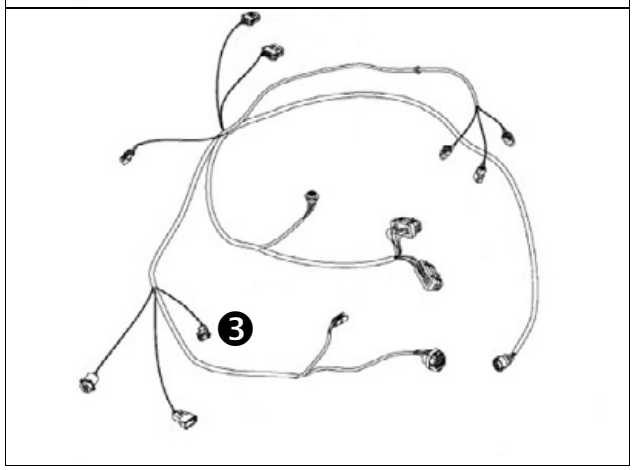
Step 1

Remove the jumper from the matching tractor harness connection and then place the jumper on the harness connector ❷ shown.



Step 2

Ensure that the connection shown ❸ is connected to the tractor harness. This establishes the power and ground circuit for the Autopilot NavController II controller and an *Ag*GPS 252/262 GPS receiver.



5

NavController and the Combine Display Configuration

CNH Autoguidance: Installing the lockout switch and seat switch

If the light is OFF on the switch, with the switch not pressed in the upper position, the system is ready to engage Autoguidance.

Most systems are kept with the switch in the OFF position.

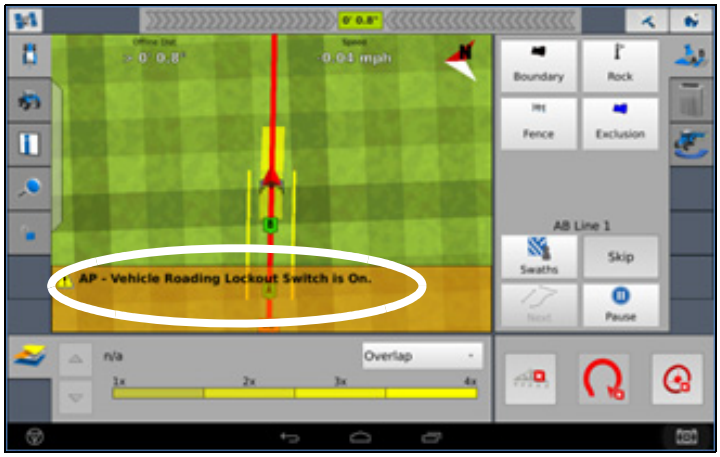


View of the FX XIAL-FL right hand modul

If the light is ON on the switch, with the switch pressed in the upper position, Autoguidance lockout is valid and will not engage.



The system will call out that the switch is on. Turn off the switch on the right console of the cab and acknowledge the help text warning on the screen and system.



6

Final Machine Check

⚠ **WARNING –** To avoid potentially serious personal injury or illness, and to prevent damage to equipment, make sure that you read and understand the Safety Information.

To perform the final machine check:

1. Connect the battery.
2. Start the machine and check for hydraulic leaks. Correct as needed.
3. Update the Trimble display and the Autopilot NavController II/III to the latest firmware from http://agpartners.trimble.com.

   You can use FlashLoader 200 software version 4.03 to update the Autopilot controller: Download it from http://agpartners.trimble.com.
4. Load the correct configuration file into the Autopilot NavController II for the vehicle model being used.

   Download the latest set of configuration files from http://agpartners.trimble.com.

   You can use Autopilot Toolbox II software version 4.01 or later to load the configuration file into the Autopilot controller. You can download the Autopilot Toolbox II software from http://agpartners.trimble.com.
5. Calibrate the Autopilot system using the Trimble display or Autopilot Toolbox II software version 2.92 or later. Depending on your machine type, the following items must be calibrated before you can use the Autopilot system:
   - NavController II/III mounting orientation
   - Manual override
   - Autosense mounting orientation
   - Valve deadzone
   - Autopilot P-gain
   - Antenna height/Antenna axle offset, and Roll offset

A

New Holland Guardian IntelliSteer Ready Sprayers: Power Adapter

This document describes how to install the power adapter for New Holland Guardian sprayers that are IntelliSteer ready.

Depending on the sprayer configuration, it may be required to install a power adapter to provide power to the NavController when installing a Trimble display.

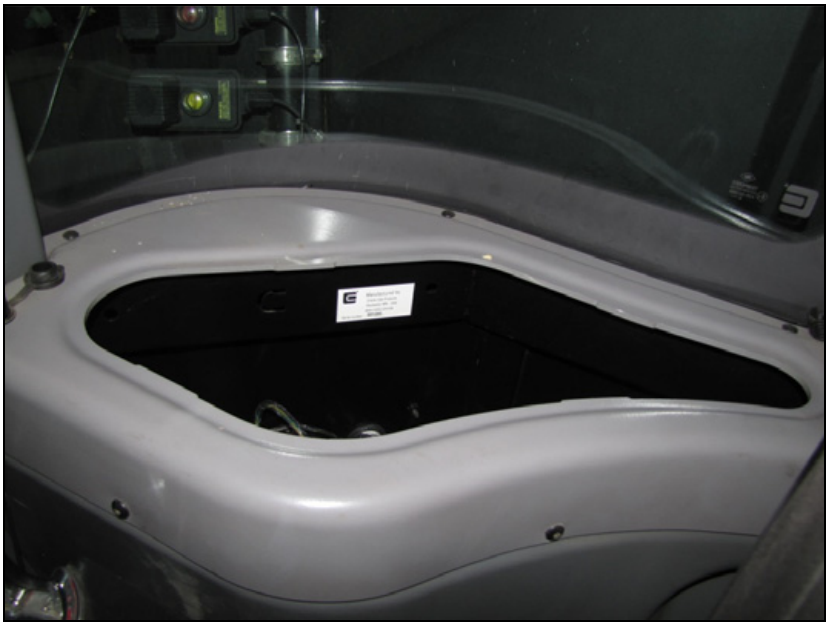
Switched power for the NavController on guidance-ready vehicles is controlled by either the Intelliview display or the Raven system master switch. If the vehicle is not equipped with either of these, you must install the P/N 95964 power adapter cable. This cable takes power from the P/N 67259 power bus (purchased separately) and provides it to the NavController when the power bus is turned on.

Installing the adapter

1. Locate the tray in the right rear of the cab.



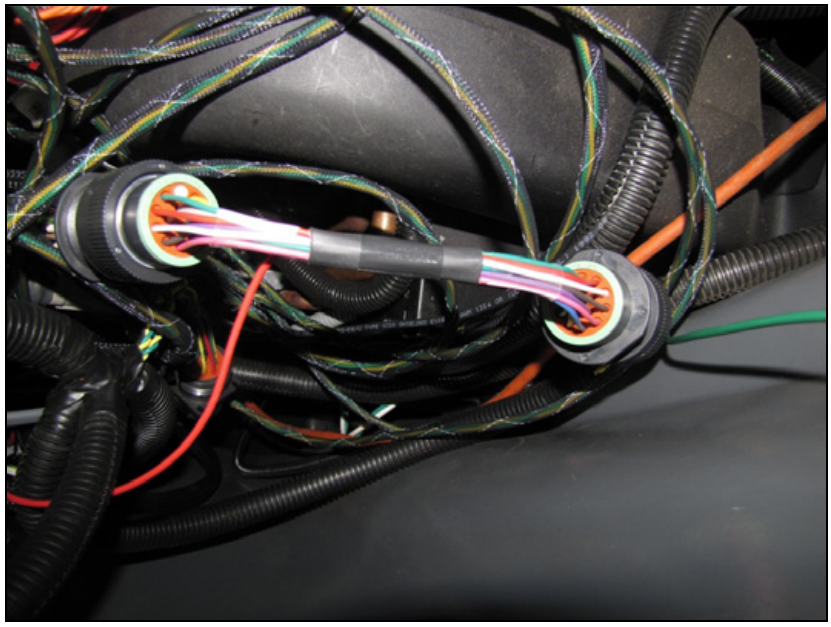
2. Remove the tray to gain access to the harnessing.



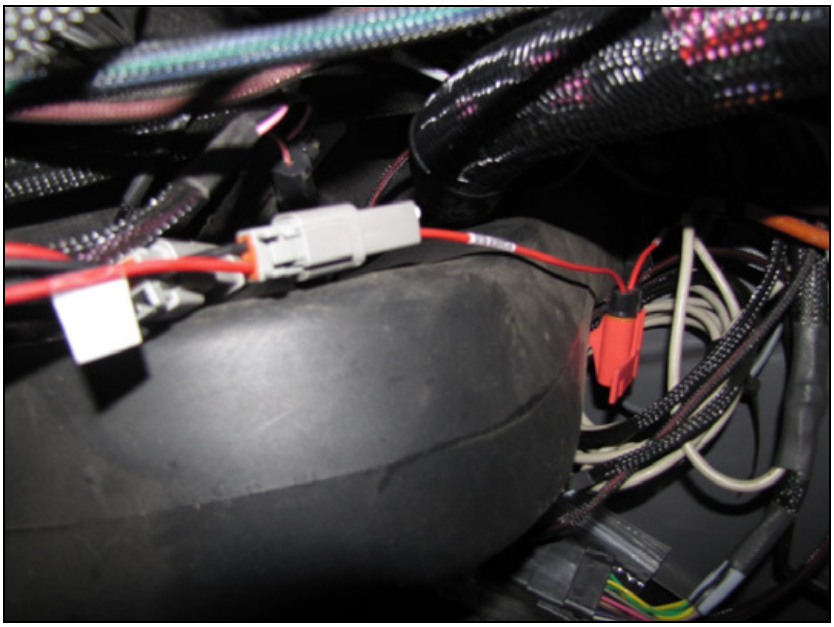
3. Locate the round 14-pin Deutsch connector.



4. With the machine off, separate the connectors and insert the adapter cable.



5. Connect the 2-pin Deutsch DT receptacle to one of the 3 DT power plugs on the P/N 67259 power bus harness.



6. Reinstall the tray.