

SERVICE MANUAL

IntelliView™ III IntelliView™ IV IntelliView™ Plus II Autoguidance and Navigation

Part number 47625200

1st edition English

Sample of manual. Download All 428 pages at:

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INTRODUCTION

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Safety rules

Personal safety



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible death or injury.

Throughout this manual you will find the signal words DANGER, WARNING, and CAUTION followed by special instructions. These precautions are intended for the personal safety of you and those working with you.

Read and understand all the safety messages in this manual before you operate or service the machine.

 DANGER indicates a hazardous situation that, if not avoided, will result in death or serious injury.

 WARNING indicates a hazardous situation that, if not avoided, could result in death or serious injury.

 CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injury.

FAILURE TO FOLLOW DANGER, WARNING, AND CAUTION MESSAGES COULD RESULT IN DEATH OR SERIOUS INJURY.

Machine safety

NOTICE: Notice indicates a situation that, if not avoided, could result in machine or property damage.

Throughout this manual you will find the signal word Notice followed by special instructions to prevent machine or property damage. The word Notice is used to address practices not related to personal safety.

Information

NOTE: Note indicates additional information that clarifies steps, procedures, or other information in this manual.

Throughout this manual you will find the word Note followed by additional information about a step, procedure, or other information in the manual. The word Note is not intended to address personal safety or property damage.

Safety rules - Ecology and the environment

Soil, air, and water are vital factors of agriculture and life in general. When legislation does not yet rule the treatment of some of the substances required by advanced technology, sound judgment should govern the use and disposal of products of a chemical and petrochemical nature.

NOTE: *The following are recommendations that may be of assistance:*

- Become acquainted with and ensure that you understand the relative legislation applicable to your country.
- Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, antifreeze, cleaning agents, etc., with regard to their effect on man and nature and how to safely store, use, and dispose of these substances.
- Agricultural consultants will, in many cases, be able to help you as well.

Helpful hints

- Avoid filling tanks using cans or inappropriate pressurized fuel delivery systems that may cause considerable spillage.
- In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of them contain substances that may be harmful to your health.
- Modern oils contain additives. Do not burn contaminated fuels and or waste oils in ordinary heating systems.
- Avoid spillage when draining off used engine coolant mixtures, engine, gearbox and hydraulic oils, brake fluids, etc. Do not mix drained brake fluids or fuels with lubricants. Store them safely until they can be disposed of in a proper way to comply with local legislation and available resources.
- Modern coolant mixtures, i.e. antifreeze and other additives, should be replaced every two years. They should not be allowed to get into the soil, but should be collected and disposed of properly.
- Do not open the air-conditioning system yourself. It contains gases that should not be released into the atmosphere. Your NEW HOLLAND dealer or air conditioning specialist has a special extractor for this purpose and will have to recharge the system properly.
- Repair any leaks or defects in the engine cooling or hydraulic system immediately.
- Do not increase the pressure in a pressurized circuit as this may lead to a component failure.
- Protect hoses during welding as penetrating weld splatter may burn a hole or weaken them, allowing the loss of oils, coolant, etc.

Basic instructions - Important notice regarding equipment servicing

All repair and maintenance work listed in this manual must be carried out only by qualified dealership personnel, strictly complying with the instructions given, and using, whenever possible, the special tools.

Anyone who performs repair and maintenance operations without complying with the procedures provided herein shall be responsible for any subsequent damages.

The manufacturer and all the organizations of its distribution chain, including - without limitation - national, regional, or local dealers, reject any responsibility for damages caused by parts and/or components not approved by the manufacturer, including those used for the servicing or repair of the product manufactured or marketed by the manufacturer. In any case, no warranty is given or attributed on the product manufactured or marketed by the manufacturer in case of damages caused by parts and/or components not approved by the manufacturer.

The information in this manual is up-to-date at the date of the publication. It is the policy of the manufacturer for continuous improvement. Some information could not be updated due to modifications of a technical or commercial type, or changes to the laws and regulations of different countries.

In case of questions, refer to your NEW HOLLAND Sales and Service Networks.



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Electrical systems



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Autopilot/Autoguidance - 680

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Autoguidance module

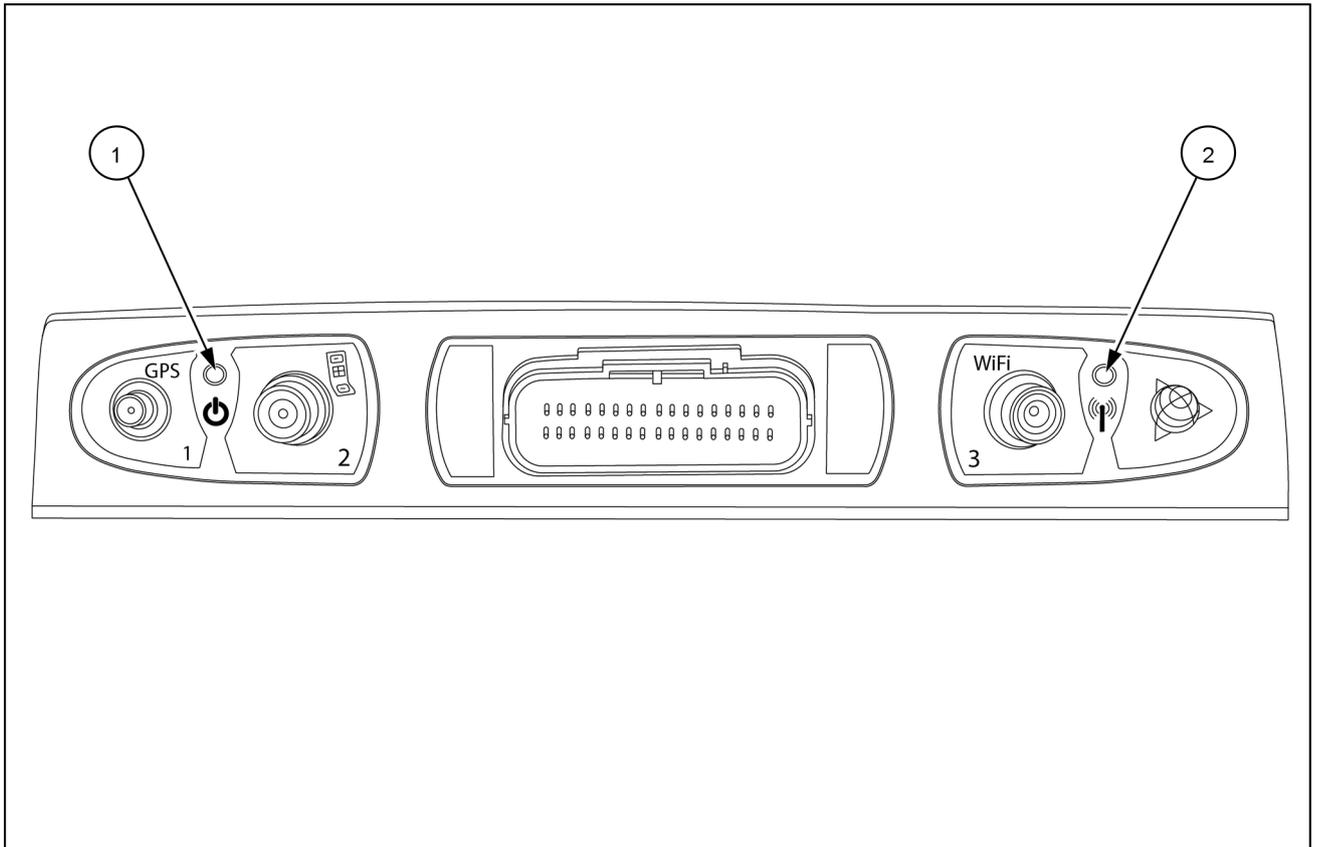
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Autoguidance sensors

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Autoguidance module - Overview - DCM-300 modem - Light Emitting Diode (LED) status indicators



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DCM-300 modem

The **DCM-300** modem has two Light Emitting Diodes (LEDs) that indicate the status of the modem:

- Green LED (1)
- Amber LED (2)

The following table lists the modem status that is indicated by each LED combination:

Status	Green LED (1)	Amber LED (2)
Power ON and booting up	ON (solid)	OFF
GPS signal	1 s ON and 1 s OFF	N/A
Cellular link	N/A	ON (solid)
WiFi link	N/A	1 s ON and 1 s OFF
WiFi and cellular link	N/A	3 s ON and 3 s OFF ¹ / ON (solid) ²
Poor or no wireless signal	N/A	0.2 s ON and 0.2 s OFF
Poor or no GPS signal	0.2 s ON and 0.2 s OFF	N/A
System ignition OFF (sleep mode)	OFF	OFF

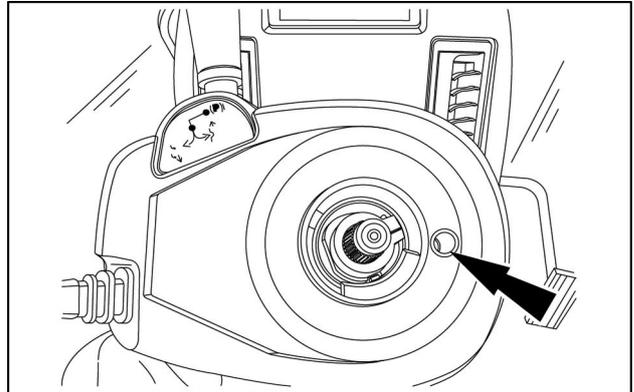
¹ Firmware version 3.X.X

² Firmware version 4.X.X

Autoguidance sensors - Clearance - Manual override sensor

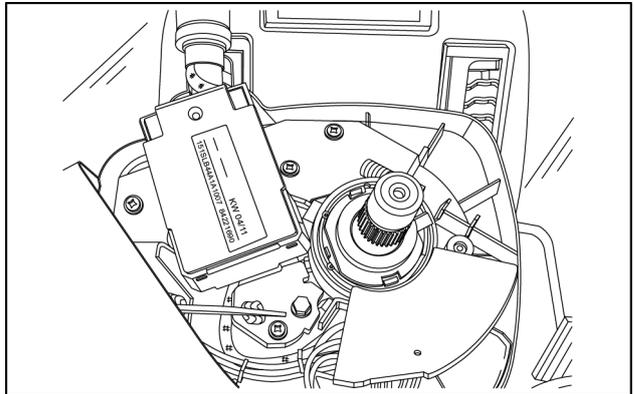
Follow the instructions below to check the clearances for the manual override sensor on Tier 4 T8 and T9 series tractors.

1. Ensure that the steering wheel does not rub on or bind with the Forward Neutral Reverse Park (FNRP) pod.
2. Remove the steering wheel.
3. Remove the screw that secures the top half of the FNRP pod to the lower half of the FNRP pod.



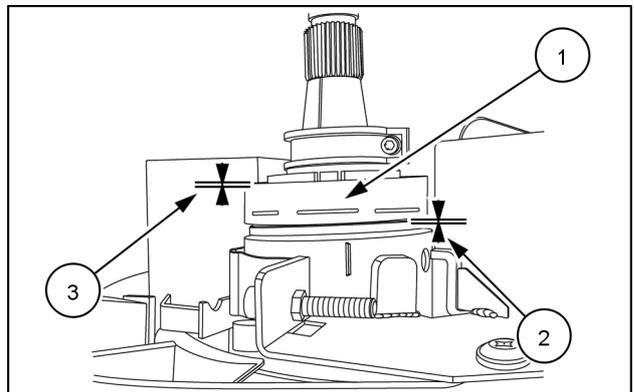
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4. Remove the top half of the FNRP pod.



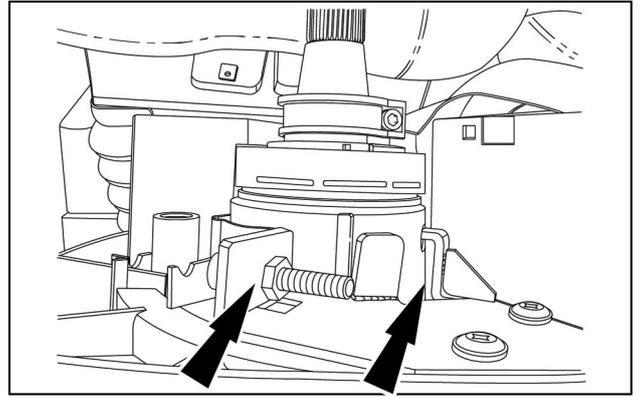
RAIL13PLM0004AA 2

5. Inspect the magnet ring (1) for clearance above the top of the steering column (2) and below the sensor (3). The distance between the magnet ring and the sensor should be equal to the distance between the magnet ring and the steering column. Adjust as necessary. The clearance between the steering column and the magnet ring (2) should be approximately **1.50 mm (0.06 in)**.



RAIL13PLM0005AA 3

6. Ensure that the FNRP pod is seated correctly on the steering column. The tab on the FNRP pod should fit into the slot on the steering column. Adjust the FNRP pod as necessary.



RAIL13PLM0006AA 4

7. Tighten the bolt that secures the FNRP pod to the steering column.
 8. Place the steering wheel back on the shaft while the FNRP pod is still disassembled.
- NOTE:** Do not secure the steering wheel.
9. Re-assemble the FNRP pod and then mount the steering wheel on the shaft.
 10. Test autoguidance functionality

Autoguidance sensors - Configure - Manual override sensor

You can adjust the sensitivity of the autoguidance system if the steering wheel self-rotates while autoguidance is engaged.

Prior operation:

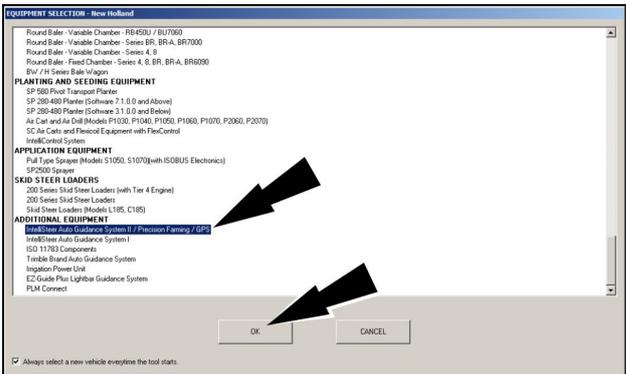
Check the clearance of the autoguidance manual override sensor: **Autoguidance sensors - Clearance - Manual override sensor (55.680)**.

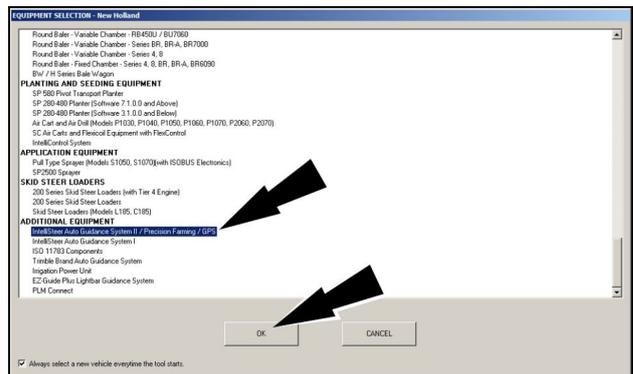
NOTE: Perform this adjustment only if:

- the steering wheel self-rotates when autoguidance is engaged, and
- you have already checked the clearance of the manual override sensor (magnet ring).

1. Install the latest version of **NAV II** controller firmware (version 3.72 or above) using service tool **380002422**.
2. Connect the Electronic Service Tool (EST) to the vehicle.

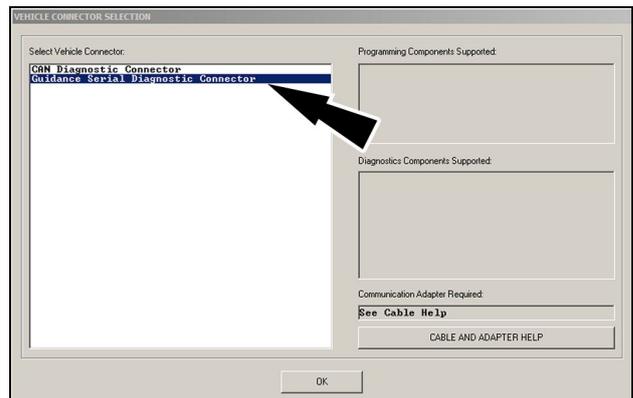
3. Click the EST icon  to get the "Brand Selection" and "Equipment Selection" screens.

4. On the "Equipment Selection" screen, select "Intellisteer Auto Guidance System II/Precision Farming/GLOBAL POSITIONING SYSTEM (GPS)." 



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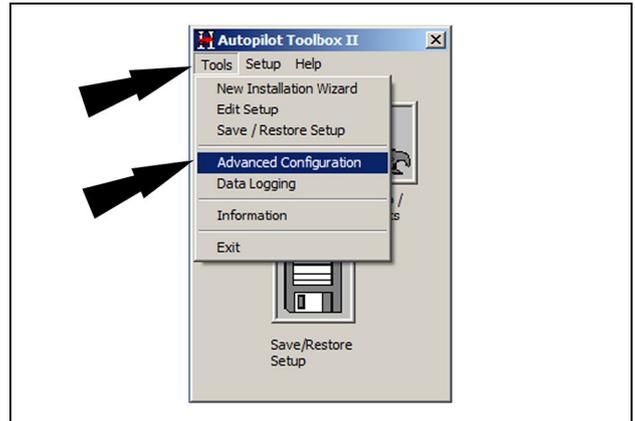
5. Click "Guidance Serial Diagnostic Connector."



RAPH13DSP1012BA 2

6. Click the "Additional Tools" icon. 
7. Click the **NAV II** tool box button.
8. Click on the "Tools" menu item.

9. Select “Advanced Configuration.”



RAPH13DSP1003BA 3

10. Enter the parameter “QORC” into the “Name” window.

11. Click the “Get” button.

NOTE: The default value for this parameter is 2. The maximum value is 5.

12. Increase the value by 1.

13. Press the “Set” button to send the new value to the controller.

14. Test autoguidance performance in the field.

- If the system no longer disengages without proper input, this completes the sensor configuration procedure.
- If the system continues to disengage without proper input, repeat this procedure beginning with Step 2. If the maximum QORC value of 5 has already been reached, continue to Step 15.

15. Inspect the hand pump:

- For binding in the steering column or binding at the pump-to-column connection
- For internal leakage

16. Repair or replace the hand pump as required.

17. If the problem persists, copy the advanced configuration file and compress the .cn1 folder from the memory device into a .zip file and attach the .zip file to an **ASIST** concern. See **Software - Download - Copy the .cn1 folder for submission to ASIST (55.785)** and **Software - Download - Copy the NAV II advanced configuration file for submission to ASIST (55.785)**.

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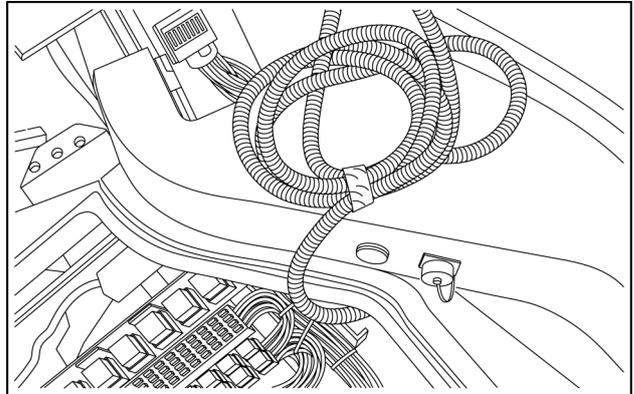
Diagnostic connector - External view - NAV II diagnostic connector locations

T9010, T9020, T9030, T9040, T9050, and T9060
TJ280, TJ330, TJ380, TJ430, TJ480, and TJ530

The **NAV II** diagnostic connector is located on a harness at the base of the rear right-hand pillar:

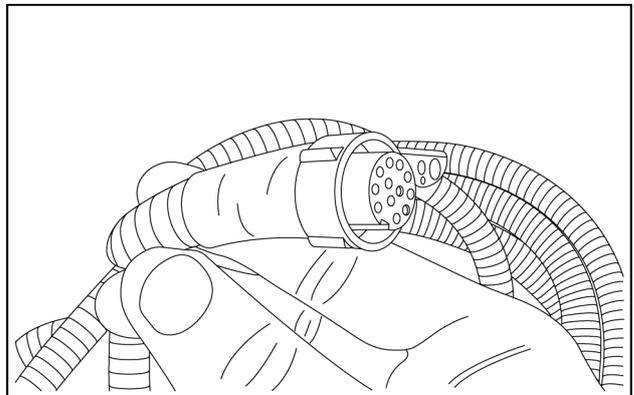
- Remove the fuse and relay panel cover to locate the harness containing the connector.
- The harness is wrapped in a corrugated plastic.

The diagnostic connector harness removed from behind the fuse panel



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12-pin connector



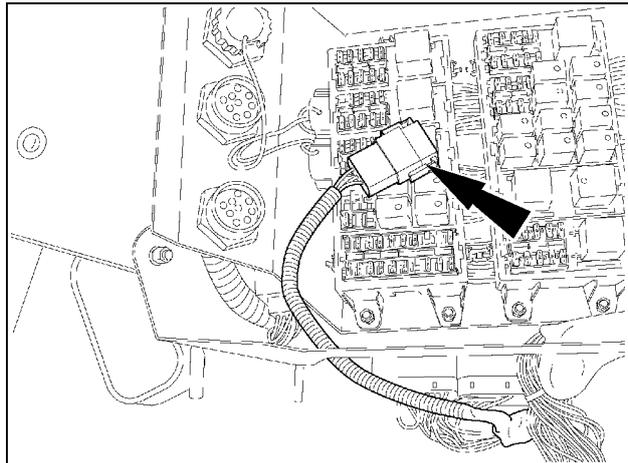
RAIL13TR03435AA 2

T9.390, T9.450, T9.505, T9.560, T9.615, and T9.670

The **NAV II** diagnostic connector is located at the left-hand side of the fuse and relay panel:

- The harness is wrapped in a corrugated plastic.

12-pin Deutsch connector

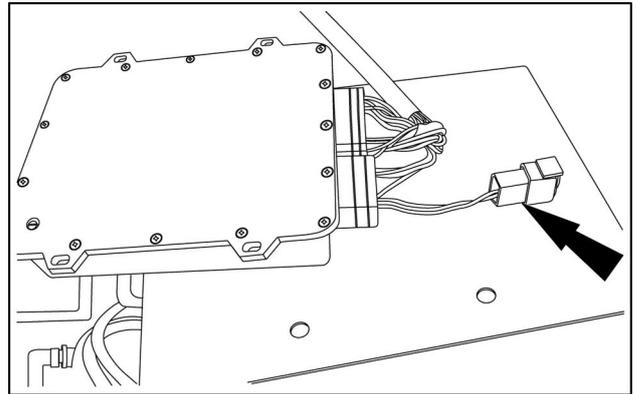


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T8.275, T8.300, T8.330, T8.360, and T8.390
T8010, T8020, T8030, T8040, and T8050
TG215, TG245, TG275, and TG305

The **NAV II** diagnostic connector is wired directly into the 24-pin connector on the **NAV II** controller.

12-pin Deutsch connector



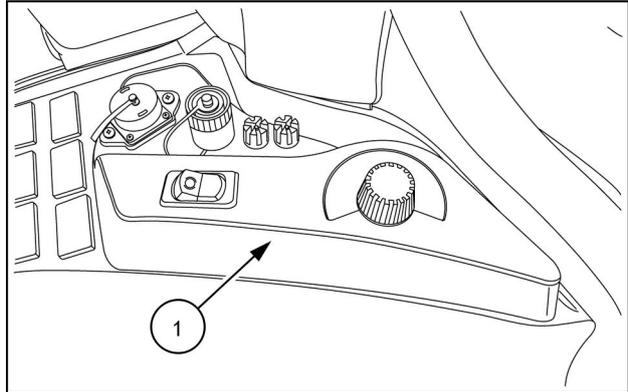
RAIL13TR03436AA 4

T7030, T7040, T7050, T7060, and T7070

The **NAV II** diagnostic connector is located under the cup holder on the right-hand side of the cab:

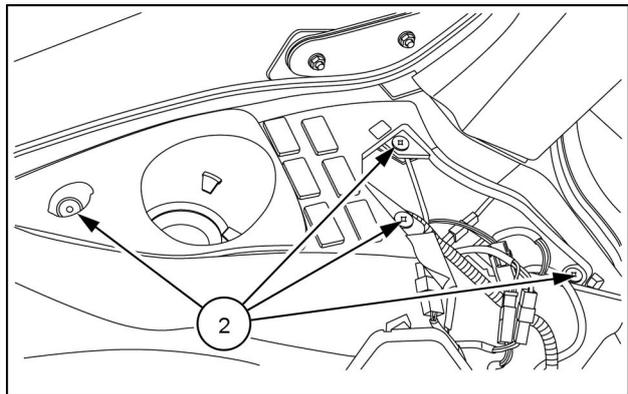
- Remove the panel cover **(1)** next to the rear right-hand post.
- Remove the four T-30 bolts **(2)** and remove the panel.
- The **NAV II** diagnostic connector **(3)** is tucked into the pocket toward the front of the opening.

Panel cover



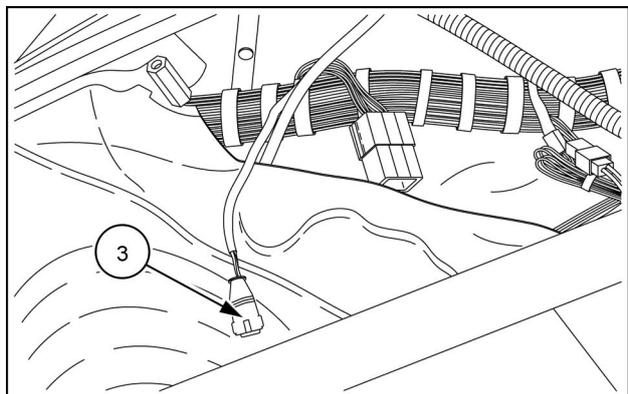
RAIL13TR03437AA 5

T-30 bolts



RAIL13TR03438AA 6

12-pin Deutsch connector

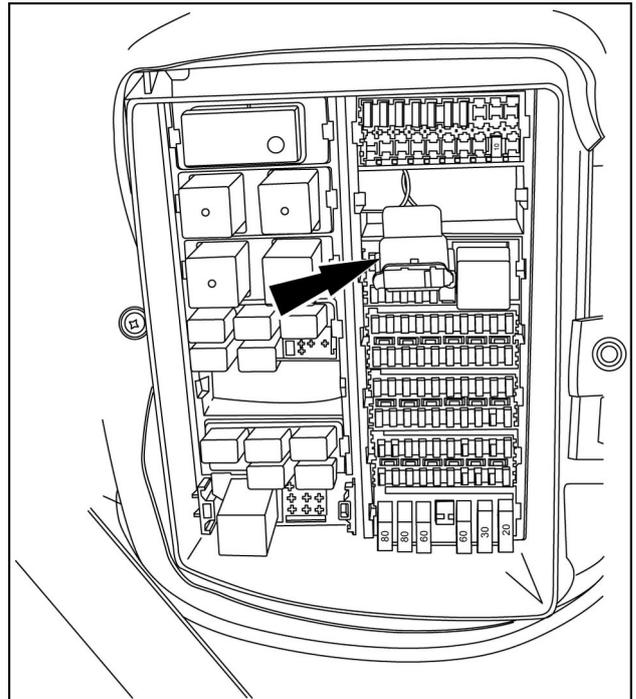


RAIL13TR03439AA 7

T7.170, T7.185, T7.200, T7.210, and T7.235

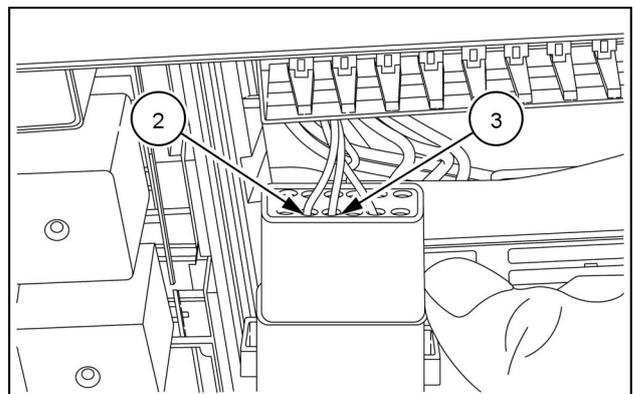
The **NAV II** diagnostic connector is located in the fuse panel on the right-hand interior rear wheel well.

12-pin Deutsch connector



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NOTE: On some early machines, the transmit and receive pins were erroneously reversed at the factory. The white wire should be in pin position (2), and the brown wire should be in pin position (3).

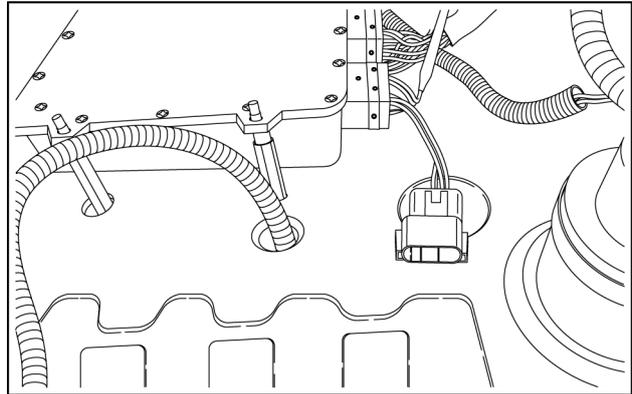


RAIL13TR03441AA 9

CR9040, CR9060, CR9065, CR9070, CR9080, and CR9090
CX8070, CX8080, and CX9090

The **NAV II** diagnostic connector is wired directly into the 24-pin connector on the **NAV II** controller.

12-pin Deutsch connector

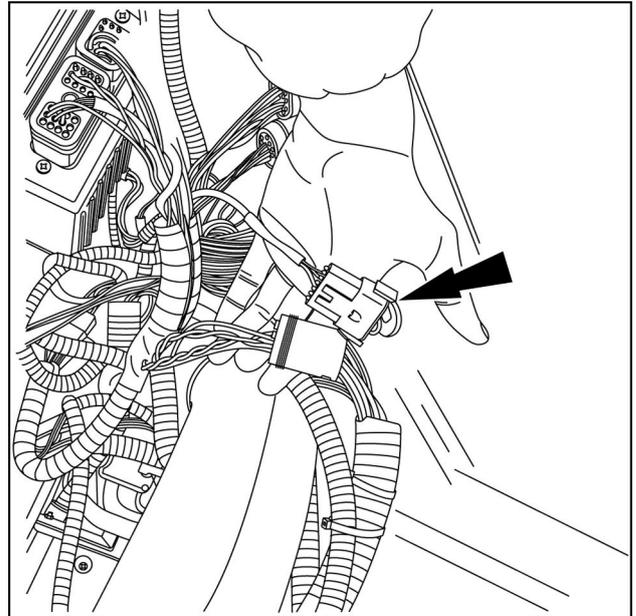


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**Guardian SP.240F, Guardian SP.275F, and Guardian SP.365F (After PIN YCYM00393)
Guardian SP.240R and Guardian SP.275R (After PIN YCYM00404)**

The **NAV II** diagnostic connector is located underneath the rear right-hand storage compartment.

Underneath the rear right-hand storage compartment



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