SERVICE MANUAL

IntelliView™ III
IntelliView™ IV
IntelliView™ Plus II

Autoguidance and Navigation

Part number 47708311
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NEW HOLLAND AGRICULTURE

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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 quality is important for all industries and life in general. When legislation does not yet rule the treatment of some of the substances that advanced technology requires, sound judgment should govern the use and disposal of products of a chemical and petrochemical nature.

Familiarize yourself with the relative legislation applicable to your country, and make sure that you understand this legislation. Where no legislation exists, obtain information from suppliers of oils, filters, batteries, fuels, anti-freeze, cleaning agents, etc., with regard to the effect of these substances on man and nature and how to safely store, use, and dispose of these substances.

Helpful hints

- Avoid the use of cans or other inappropriate pressurized fuel delivery systems to fill tanks. Such delivery systems may cause considerable spillage.
- In general, avoid skin contact with all fuels, oils, acids, solvents, etc. Most of these products 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 you drain fluids such as used engine coolant mixtures, engine oil, hydraulic fluid, brake fluid, etc. Do not mix drained brake fluids or fuels with lubricants. Store all drained fluids safely until you can dispose of the fluids in a proper way that complies with all local legislation and available resources.
- Do not allow coolant mixtures to get into the soil. Collect and dispose of coolant mixtures properly.
- The air-conditioning system contains gases that should not be released into the atmosphere. Consult an air-conditioning specialist or use a special extractor to recharge the system properly.
- Repair any leaks or defects in the engine cooling system 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. Penetrating weld splatter may burn a hole or weaken hoses, allowing the loss of oils, coolant, etc.

Battery recycling

Batteries and electric accumulators contain several substances that can have a harmful effect on the environment if the batteries are not properly recycled after use. Improper disposal of batteries can contaminate the soil, groundwater, and waterways. NEW HOLLAND strongly recommends that you return all used batteries to a NEW HOLLAND dealer, who will dispose of the used batteries or recycle the used batteries properly. In some countries, this is a legal requirement.

Mandatory battery recycling

NOTE: *The following requirements are mandatory in Brazil.*

Batteries are made of lead plates and a sulfuric acid solution. Because batteries contain heavy metals such as lead, CONAMA Resolution 401/2008 requires you to return all used batteries to the battery dealer when you replace any batteries. Do not dispose of batteries in your household garbage.

Points of sale are obliged to:

- Accept the return of your used batteries
- Store the returned batteries in a suitable location
- Send the returned batteries to the battery manufacturer for recycling

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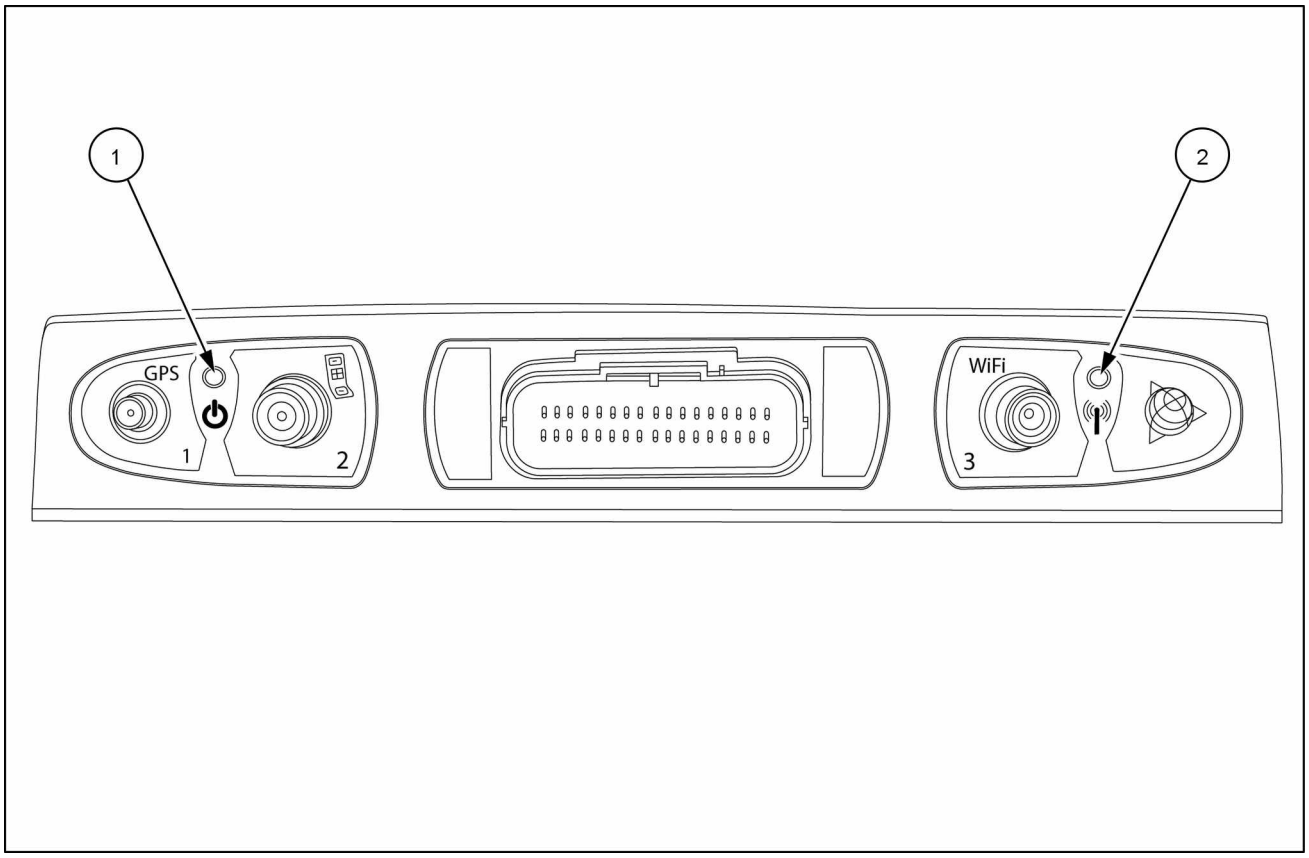
Autoguidance module - Overview - DCM-300 modem - Light Emitting Diode (LED) status indicators



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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:

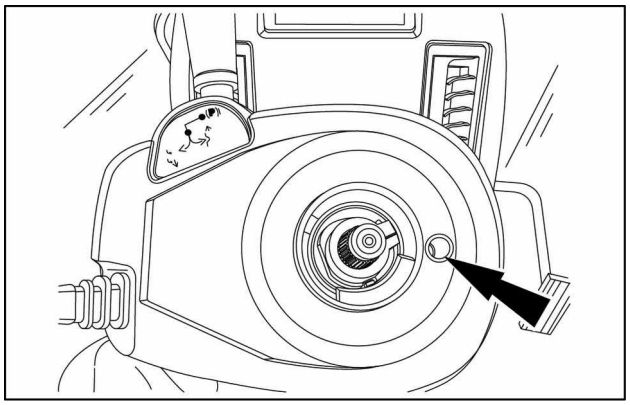
Status	Green LED (1)	Amber LED (2)
Power ON and booting up	ON (solid)	OFF
GPS signal	**1 s** ON and **1 s** OFF	N/A
Cellular link	N/A	ON (solid)
WiFi link	N/A	**1 s** ON and **1 s** OFF
WiFi and cellular link	N/A	**3 s** ON and **3 s** OFF[1] / ON (solid)[2]
Poor or no wireless signal	N/A	**0.2 s** ON 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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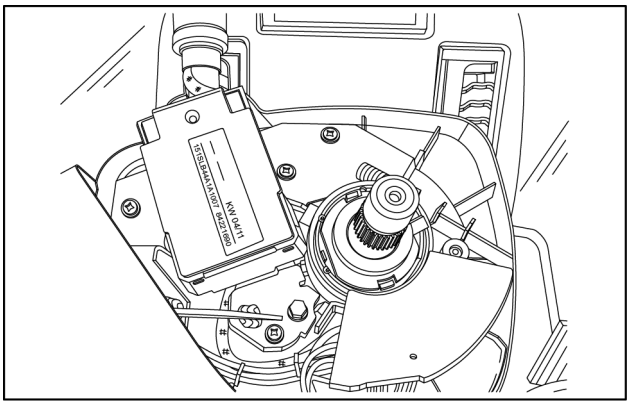
4. Remove the top half of the FNRP pod.



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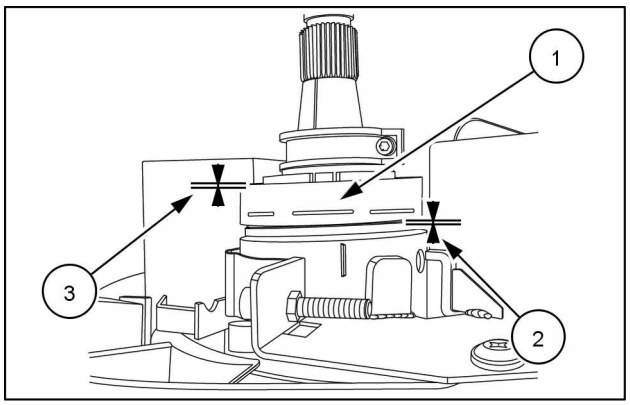
5. Inspect the magnet ring **(1)** for clearance above the top of the steering column **(2)** and below the sensor **(3)**. The distance between the magnet ring and the sensor should be equal to the distance between the magnet ring and the steering column. Adjust as necessary. The clearance between the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



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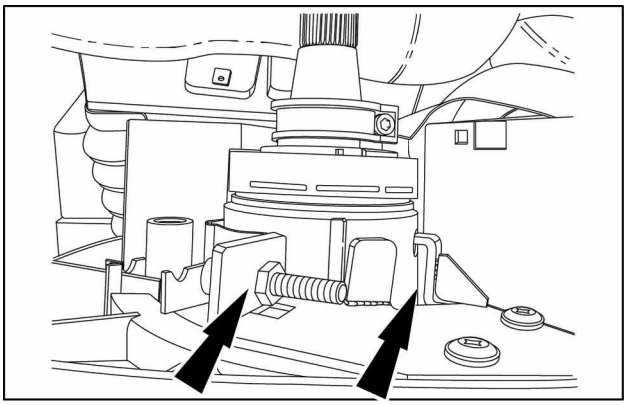
6. Ensure that the FNRP pod is seated correctly on the steering column. The tab on the FNRP pod should fit into the slot on the steering column. Adjust the FNRP pod as necessary.



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 the mount the steering wheel on the shaft.
10. Test autoguidance functionality

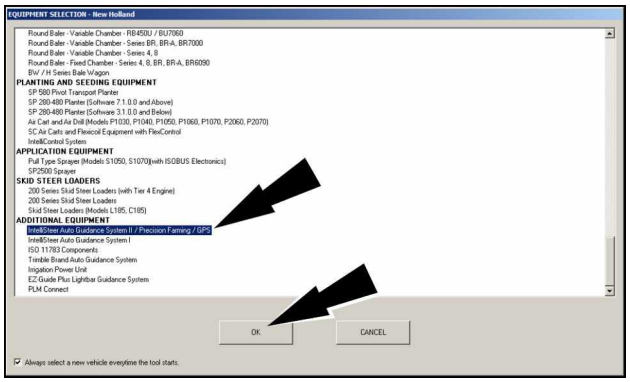
Autoguidance sensors - Configure - Manual override sensor

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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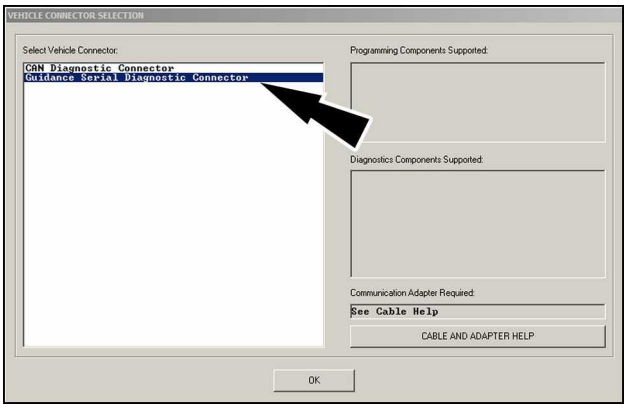
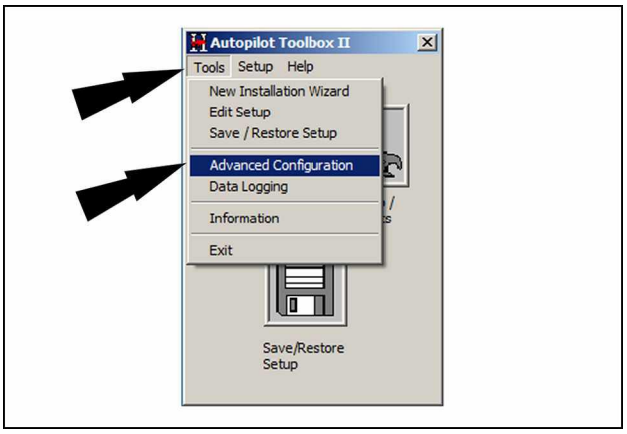
5. Click “Guidance Serial Diagnostic Connector.”



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.”



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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, compress the .cn1 folder from the memory device into a .zip file, and attach the files 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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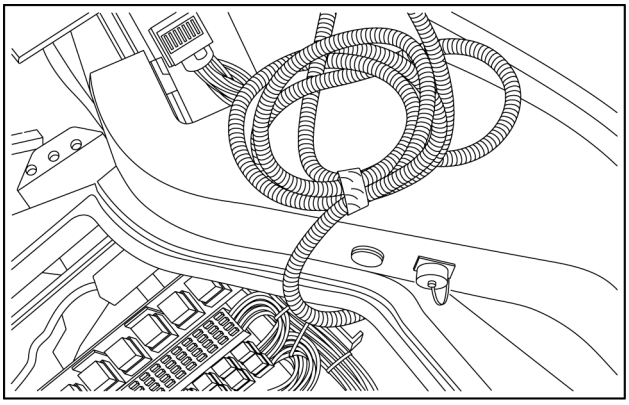
Diagnostic connector - External view - NAV II diagnostic connector locations

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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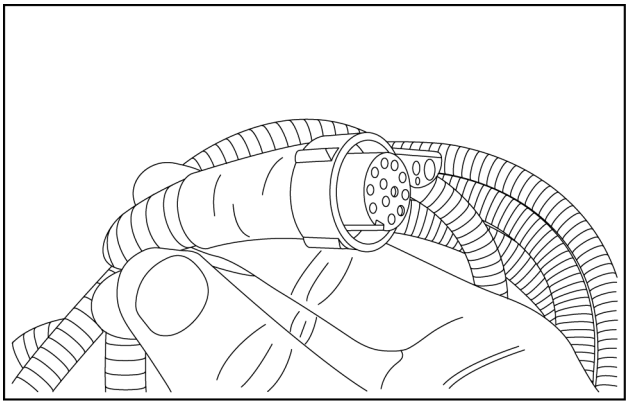
12-pin connector



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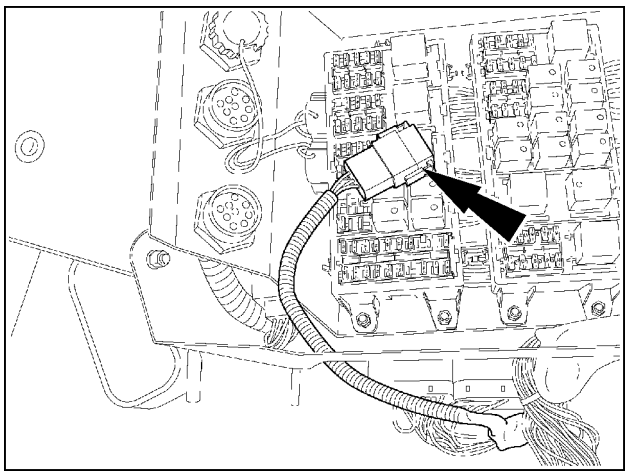
T9.390, T9.450, T9.505, T9.560, T9.615, and T9.670

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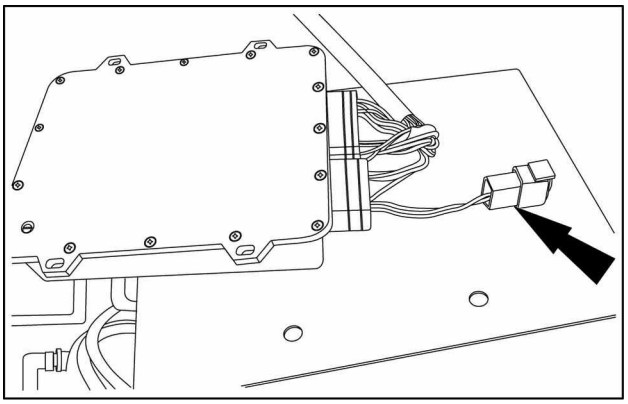
T8.275, T8.300, T8.330, T8.360, and T8.390
T8010, T8020, T8030, T8040, and T8050
TG215, TG245, TG275, and TG305

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

12-pin Deutsch connector



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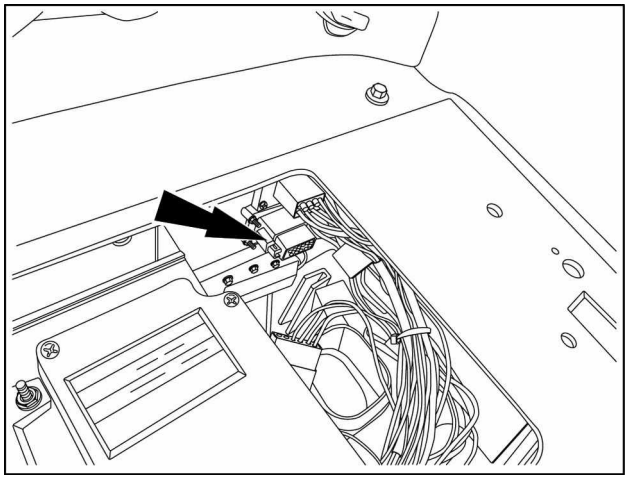
T8.320, T8.350, T8.380, T8.410, and T8.435

The NAV II diagnostic connector is mounted on the back wall of the fuse and relay panel in the cab.

12-pin Deutsch connector



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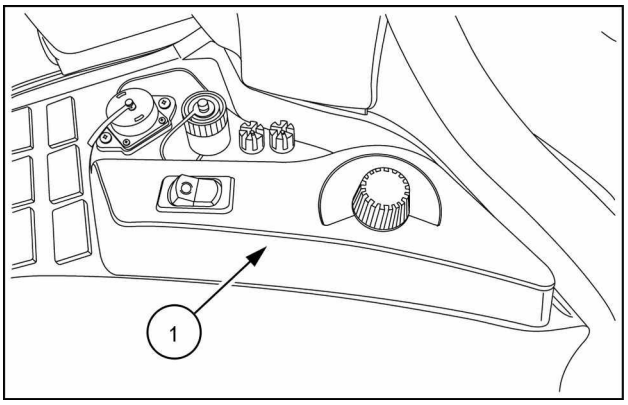
T7030, T7040, T7050, T7060, and T7070

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



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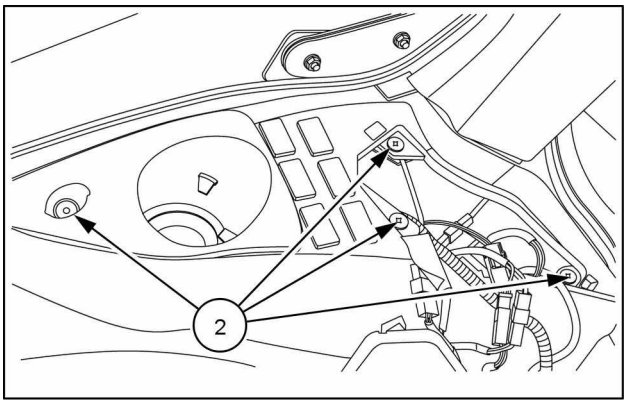
T-30 bolts



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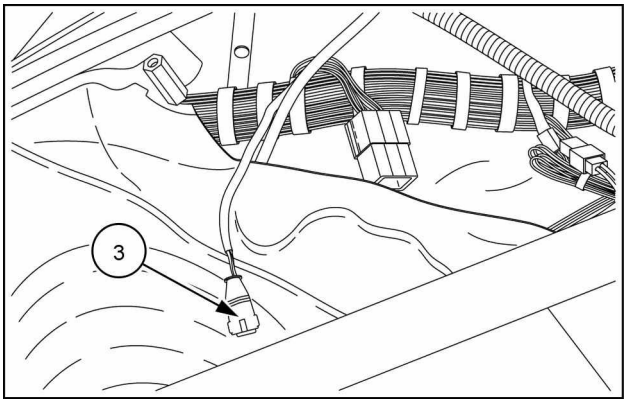
12-pin Deutsch connector

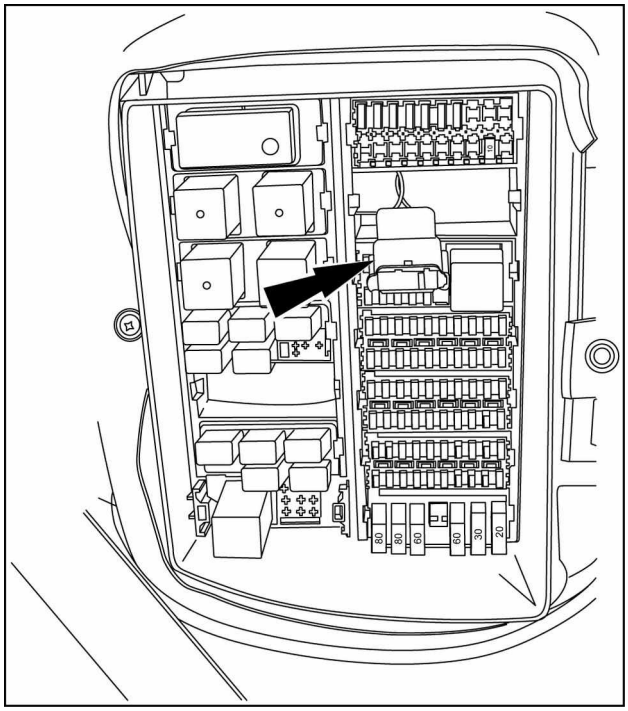


RAIL13TR03439AA 8

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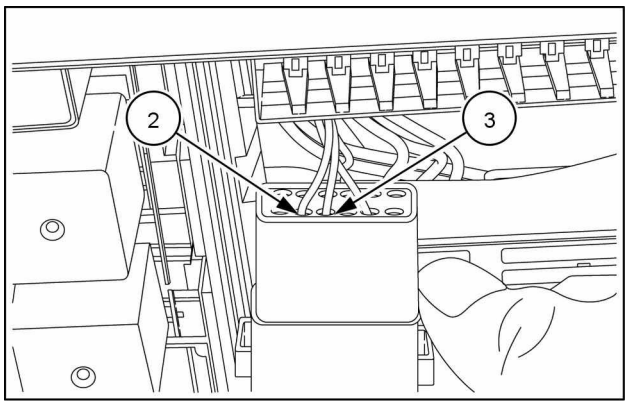
NOTE: *On some early machines, the transmit and receive pins were erroneously reversed at the factory. The white wire should be in pin position* ***(2)****, and the brown wire should be in pin position* ***(3)****.*



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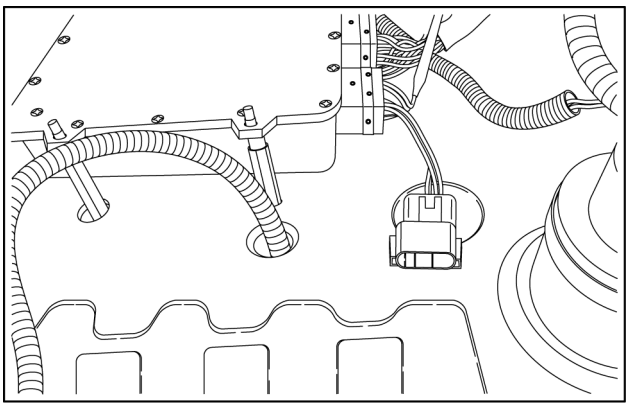
CR9040, CR9060, CR9065, CR9070, CR9080, and CR9090 CX8070, CX8080, and CX9090

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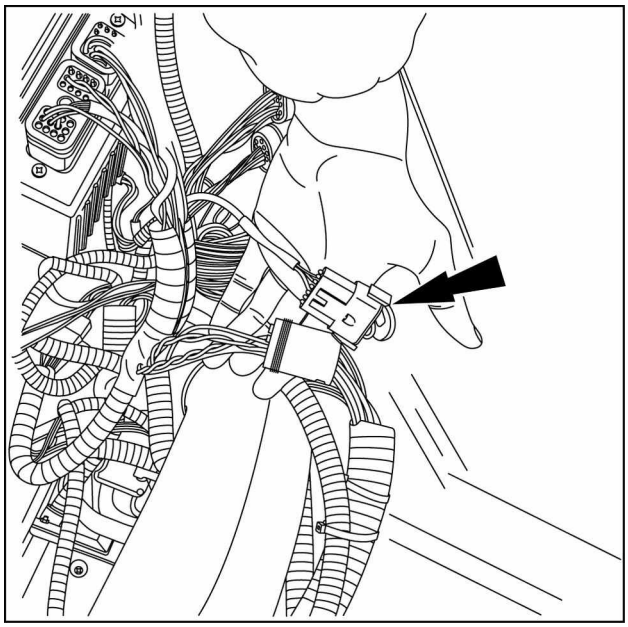
Guardian SP.240F, Guardian SP.275F, and Guardian SP.365F (After PIN YCYM00393) Guardian SP.240R and Guardian SP.275R (After PIN YCYM00404)

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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