

Navigation controller fault table

Fault	Description	Recommended action
NAV-1	Operating system fault	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. If the problem persists, contact your dealer.
NAV-2	Operating system fault	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-3	Operating system fault	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. If the problem persists, contact your dealer.
NAV-4	Data sampling failure	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-5	Data sampling failure	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-6	Data sampling failure	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-7	Data sampling failure	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-8	Internal flash programming jumper error	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-9	Internal backup battery indicates low voltage	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-11	Serial port failed initialization	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-12	Software error	Cycle power to clear the condition. Upgrade to the latest firmware. Contact your dealer if the problem persists
NAV-13	Software error	Cycle power to clear the condition. Upgrade to the latest firmware. Contact your dealer if the problem persists
NAV-14	Software error	Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-15	Controller suffered an error and rebooted	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-16	Uninitialized interrupt detected	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-17	Uninitialized module interrupt detected	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-18	Uninitialized module interrupt detected	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-19	Uninitialized module interrupt detected	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists

NAV-20	Software error	Cycle power to clear the condition. Upgrade to the latest firmware. Contact your dealer if the problem persists
NAV-21	Software error	Cycle power to clear the condition. Upgrade to the latest firmware. Contact your dealer if the problem persists
NAV-22	Accelerometer error	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-23	Accelerometer error	Cycle power to clear the condition. Upgrade to the latest firmware. Contact your dealer if the problem persists
NAV-24	Accelerometer error	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
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NAV-27	Accelerometer error	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-28	Gyro error	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
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NAV-33	Gyro error	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-34	IMU error	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. If the problem persists, contact your dealer.
NAV-35	IMU error	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-36	IMU error	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-37	IMU error	Cycle power to clear the condition. Upgrade to the latest firmware. Continuous occurrence indicates a hardware error. Contact your dealer if the problem persists
NAV-39	Steering sensor voltage high or open connection	Ensure that the steering sensor wiring harness is properly connected. Check the wiring harness for bent or broken pins in wiring to steering angle sensor.
NAV-40	Steering sensor voltage low	Ensure that the steering sensor wiring harness is properly connected. Check the wiring harness for bent or broken pins in wiring to steering angle sensor.

NAV-41	Pressure sensor voltage high or open	Ensure that the pressure manual override sensor wiring harness is properly connected. Check the wiring harness for bent or broken pins in wiring to steering angle sensor.
NAV-42	Pressure sensor voltage low	Ensure that the pressure manual override sensor wiring is properly connected. Check the wiring harness for bent or broken pins in wiring to steering angle sensor.
NAV-43	FNR lever voltage high or open connection	Ensure that the wiring to the Forward-Neutral-Reverse (FNR) lever is properly connected. Check the wiring harness for bent or broken pins.
NAV-44	FNR lever voltage low	Ensure that the wiring to the Forward-Neutral-Reverse (FNR) lever is properly connected. Check the wiring harness for bent or broken pins.
NAV-46	Valve wiring short	Check for shorts and proper connection in wiring to the autoguidance valve. Inspect the valve coils for any damage and contact your dealer if necessary.
NAV-47	Valve wiring short	Check for shorts and proper connection in wiring to the autoguidance valve. Inspect the valve coils for any damage and contact your dealer if necessary.
NAV-48	Valve wiring short	Check for shorts and proper connection in wiring to the autoguidance valve. Inspect the valve coils for any damage and contact your dealer if necessary.
NAV-49	Valve wiring fault	Check for shorts and proper connection in wiring to the autoguidance valve. Inspect the valve coils for any damage and contact your dealer if necessary.
NAV-50	Valve wiring short	Check for shorts and proper connection in wiring to the autoguidance valve. Inspect the valve coils for any damage and contact your dealer if necessary.
NAV-51	Valve wiring fault	Check for shorts and proper connection in wiring to the autoguidance valve. Inspect the valve coils for any damage and contact your dealer if necessary.
NAV-52	Valve wiring fault	Check for shorts and proper connection in wiring to the autoguidance valve. Inspect the valve coils for any damage and contact your dealer if necessary.
NAV-53	Valve wiring fault	Check for shorts and proper connection in wiring to the autoguidance valve. Inspect the valve coils for any damage and contact your dealer if necessary.
NAV-62	1PPS signal not detected	Check the integrity of wiring between the GPS receiver and the NAV II controller. If the problem persists, contact your dealer.
NAV-64	Electronic steering interface fault	Balance voltage from the fly-by-wire interface unit is sampled at a value that is out of range. Verify the calibration of the steering unit. Replace the electronic steering interface if the problem persists.
NAV-65	Electronic steering interface fault	Balance voltage from the fly-by-wire interface unit is sampled at a value that is too close to the 5 V rail. Ensure proper system installation and grounding. Verify the calibration of the steering unit. Replace the electronic steering interface if the problem persists.
NAV-66	Electronic steering interface fault	Balance voltage from the fly-by-wire interface unit is sampled at a value that is too close to the 0 V rail. Ensure proper system installation and grounding. Verify the calibration of the steering unit. Replace the electronic steering interface if the problem persists.
NAV-67	Electronic steering interface fault	A fault is active on the fly-by-wire interface unit. Ensure proper system installation and grounding. Verify the calibration of the steering unit. Replace the electronic steering interface if the problem persists.

NAV-70	Test software expired	Upload production NAV II software to allow continued operation. Test software may contain serious flaws and should not be used.
NAV-71	Valve wiring short	Check for shorts in the wiring to the autoguidance valve. Check the valve coils for damage and replace them if necessary.
NAV-80	Path planning software fault	Continue to operate if possible. If continued operation is not possible, select a different swath or create a new swath. If the problem persists, cycle power.
NAV-82	CAN communication fault	Check the CAN bus wiring for damage and ensure that wires are properly routed. Ensure that there are no CAN conflicts with recently added controllers. Continue to operate if possible.
NAV-83	Electronic steering interface fault	Voltage from the steering fault indicator on the fly-by-wire interface unit is sampled at a value that is too close to the 5 V rail. Ensure proper system installation and grounding. Verify the calibration of the steering unit. Replace the electronic steering interface if the problem persists.
NAV-84	Electronic steering interface fault	Voltage from the steering fault indicator on the fly-by-wire interface unit is sampled at a value that is too close to the 0 V rail. Ensure proper system installation and grounding. Verify the calibration of the steering unit. Replace the electronic steering interface if the problem persists.
NAV-85	Valve wiring or steering sensor fault	Ensure that the autoguidance valve is connected correctly (check for reversed coils). Ensure that the steering sensor is properly installed and connected. Ensure that the manual override sensor is functioning properly.
NAV-86	Battery voltage too low	Automatic operation is not possible. Check the vehicle battery. Recharge or replace the batter as required. If the problem persists, contact your dealer
NAV-87	Battery voltage too high	Automatic operation is not possible. Check the vehicle battery. Recharge or replace the batter as required. If the problem persists, contact your dealer
NAV-88	Controller temperature too high	Check the vehicle for the source of the high temperature at the location of the controller. The controller must be < 80 °C (176 °F) for the system to remain engaged. If the problem persists, contact your dealer.
NAV-89	Controller temperature too low	Check the vehicle for the source of the low temperature at the location of the controller. The controller must be > -30 °C (-22 °F) for the system to remain engaged. If the problem persists, contact your dealer.
NAV-90	Valve wiring or coil fault	Upload the latest firmware. Ensure that the autoguidance valve coils are properly connected and check for damage to wiring harness. Inspect the valve coils for any damage and contact your dealer if necessary.
NAV-91	Valve wiring fault	Valve signal and ground lines are sampled at values that are too close to each other. Check the valve wiring for short to ground and short to battery. Ensure that the NAV II controller is properly grounded to the vehicle.
NAV-96	Valve wiring or coil fault	Check the low side of the autoguidance valve coil for short to battery.
NAV-97	Valve wiring short	Check for electrical shorts across the autoguidance valve coil. Check the low side of the autoguidance valve coil for short to battery.
NAV-98	Valve driver fault	If the problem persists, contact your dealer.
NAV-99	Valve driver fault	If the problem persists, contact your dealer.

NAV-106	Valve driver fault	If the problem persists, contact your dealer.
NAV-108	CAN communications error	Operator presence status timeout. Ensure that the proper software is loaded and the proper vehicle model is selected. Check the CAN bus wiring for proper connections and bent or broken pins.
NAV-109	CAN communications error	Operator presence status timeout. Ensure that the proper software is loaded and the proper vehicle model is selected. Check the CAN bus wiring for proper connections and bent or broken pins.
NAV-110	CAN communications error	Autoguidance message timeout. Ensure proper software is loaded and proper vehicle model is selected. Check the CAN bus wiring for proper connections and bent or broken pins.
NAV-111	CAN communications error	Autoguidance message error. Ensure that the proper software is loaded and the proper vehicle model is selected. Check the CAN bus wiring for proper connections and bent or broken pins.
NAV-112	CAN communications error	Isolation valve status is invalid. Ensure that the proper software is loaded and the proper vehicle model is selected. Ensure that the autoguidance isolation valve is properly connected. Check the CAN bus wiring for proper connections and bent or broken pins. Cycle power to clear fault.
NAV-113	CAN communications error	Isolation valve status is invalid. Ensure that the proper software is loaded and the proper vehicle model is selected. Ensure that the autoguidance isolation valve is properly connected. Check the CAN bus wiring for proper connections and bent or broken pins. Cycle power to clear fault.
NAV-115	Nav II controller installed upside down	Check controller orientation to ensure that it is correct for the vehicle. Refer to the vehicle installation manual for installation instructions. Cycle power to clear the condition.
NAV-116	Wheel speed not detected	Ensure that the wheel speed sensor is properly connected. Check for damaged wiring. Contact Dealer if the problem persists.
NAV-117	Manual override backup not detected	Ensure that the backup steering wheel manual override sensor is properly connected. Check for damaged wiring. Examine the sensor for damage.
NAV-118	AGCO steering fault	The "steering status" message is not detected. Ensure that all warnings have been acknowledged on the vehicle's control panel. Check the harnessing for damaged or disconnected cables.
NAV-119	MT steering fault	The "steering override" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-120	MT steering fault	The "steering override" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-121	MT steering fault	The "gear lever" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.

NAV-122	MT steering fault	The "gear lever" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-123	MT steering fault	The "gear lever" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-124	MT steering fault	The "road lockout" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-125	MT steering fault	The "road lockout" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-126	AGCO steering fault	The "steering command reset required" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-127	MT steering fault	The "steering command reset required" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-128	MT steering fault	The "steering subsystem ready" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-129	MT steering fault	The "steering subsystem ready" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-130	MT steering fault	The "CAN communication status" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-131	MT steering fault	The "CAN communication status" parameter sent by the MT controller is reporting an error or not available state. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-132	CAN communications error	CCM3 manual override error. Ensure that the manual override sensor located in the steering column is properly connected. Check the wiring for open connections and bent or broken pins.
NAV-133	CAN communications error	CCM3 manual override error. Ensure that the manual override sensor located in the steering column is properly connected. Check the wiring for open connections and bent or broken pins.
NAV-134	CAN communications error	CCM3 vehicle direction unknown. Ensure that the steering angle sensor is properly connected and calibrated.
NAV-135	CAN communications error	CCM3 speed sensor error. Ensure that the vehicle ground speed sensor is properly connected and calibrated.

NAV-136	CAN communications error	CCM3 speed sensor error. Ensure that the vehicle ground speed sensor is properly connected and calibrated.
NAV-137	CAN communications error	CCM3 speed sensor error. Ensure that the vehicle ground speed sensor is properly connected and calibrated.
NAV-138	CAN communications error	CCM3 steering sensor error. Ensure that the steering angle sensor is properly connected and calibrated.
NAV-139	CAN communications error	CCM3 steering sensor error. Ensure that the steering angle sensor is properly connected and calibrated.
NAV-140	CAN communications error	CCM3 steering sensor error. Ensure that the steering angle sensor is properly connected and calibrated.
NAV-141	CAN communications error	CCM3 valve error. Ensure that the autoguidance valve is properly connected. Check the wiring for open connections and bent or broken pins.
NAV-142	CAN communications error	CCM3 valve error. Ensure that the autoguidance valve is properly connected. Check the wiring for open connections and bent or broken pins.
NAV-143	CAN communications error	CCM3 valve error. Ensure that the autoguidance valve is properly connected. Check the wiring for open connections and bent or broken pins.
NAV-144	CAN communications error	CCM3 valve error. Ensure that the autoguidance valve is properly connected. Check the wiring for open connections and bent or broken pins.
NAV-145	CAN communications error	Aggressiveness error. Change the aggressiveness setting to initiate re-sending of value. Check the CAN bus wiring for integrity.
NAV-146	CAN communications error	Aggressiveness error. Change the aggressiveness setting to initiate re-sending of value. Check the CAN bus wiring for integrity.
NAV-147	CAN communications error	Aggressiveness error. Change the aggressiveness setting to initiate re-sending of value. Check the CAN bus wiring for integrity.
NAV-148	Cannot engage automatic when calibrating	Complete calibrations prior to engaging autoguidance. Ensure that the autoguidance setup is correct in the display.
NAV-149	CAN communications error	Steering info timeout. Ensure that the steering sensor is properly connected and calibrated. Check the CAN bus wiring for integrity.
NAV-150	CAN communications error	Steering info timeout. Ensure that the steering sensor is properly connected and calibrated. Check the CAN bus wiring for integrity.
NAV-151	MT steering fault	"Inching pedal depressed" parameter sent by the MT steering system is faulted or not available. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-152	MT steering fault	"Inching pedal depressed" parameter sent by the MT steering system is faulted or not available. Cycle power to clear the condition. Upgrade to the latest firmware. If the problem persists, contact your dealer.
NAV-153	CAN communications error	CCM3 manual override error. Update the software to the latest revision. Ensure that the manual override sensor located in the steering column is properly connected. Check the CAN bus wiring for integrity.
NAV-154	CAN communications error	CCM3 valve error. Ensure that the autoguidance valve is properly connected. Check the wiring for open connections and bent or broken pins.

NAV-155	CAN communications error	CCM3 valve error. Ensure that the autoguidance valve is properly connected. Check the wiring for open connections and bent or broken pins.
NAV-156	1PPS signal noisy	Check integrity of wiring between the GPS receiver and the NAV II controller. If the problem persists, contact your dealer.
NAV-157	Software error	Update the software to the latest revision and continue to operate. If the problem persists, re-flash the NAV II controller.
NAV-158	JD system status error	Ensure that the proper vehicle model is selected. Check the wiring on the vehicle platform kit and the function of the interface box. Cycle power to clear the condition.
NAV-159	Maestro status message fault	Check the CAN bus connection to the Maestro controller. Ensure that the Maestro controller is functioning properly. If the problem persists, contact your dealer.
NAV-161	Left RowGuide sensor under voltage	Check the left RowGuide sensor for short to ground (< 0.25 V).
NAV-162	Left RowGuide sensor over voltage	Check the left RowGuide sensor for short to battery (> 5 V) or open connection.
NAV-163	XCM autoguidance engage error	Ensure that the latest software is loaded and the proper vehicle model is selected. Ensure that the Global Arm Rest Unit (GARU) is properly configured to use the autoguidance remote engage button. Check the CAN bus wiring for integrity
NAV-165	Right RowGuide under voltage	Check the right RowGuide sensor for short to ground (< 0.25 V).
NAV-166	Right RowGuide over voltage	Check the right RowGuide sensor for short to battery (> 5 V) or open connection.
NAV-167	Maestro status message fault	Check the CAN bus connection to the Maestro controller.
NAV-168	CAN communications error	XCM engine speed timeout. Ensure that the proper software is loaded and the proper vehicle model is selected. Check the CAN bus wiring for proper connections and bent or broken pins.
NAV-169	Steering column manual override sensor	Sensor voltage is high. Check for short to > 4.85 V or open connection in wiring to the NAV II controller.
NAV-170	Steering column manual override sensor	Sensor voltage is low. Check for short to < 0.15 V in wiring to the NAV II controller.
NAV-171	Steering column manual override sensor	Sensor voltage is in phase. Check for pins shorted together in the wiring to the NAV II controller.
NAV-172	CAN file error	Ensure that latest software is loaded. If the problem persists, re-flash the NAV II firmware and continue to operate.