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AgGPS Autopilot System: Fault Code 118

This Support Note describes the causes of the AgGPS® Autopilot™ automated steering system fault code 118: Steering Status Report Packet Not Detected.

This is a liability warning that automatic control of steering and implement valves will occur. The warning must be acknowledged every time the tractor is started.

To ensure that the packet is received by the Autopilot controller:

1. Turn off the Autopilot system power switch.
2. Start the tractor.
3. Acknowledge the ISO Class 2 enabled message on the armrest console:



4. Turn on the Autopilot system power switch.

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Cause

When the AgGPS Autopilot automated steering system is installed on a CAT MT 7xx/CAT MT 8xx vehicle, the system can return the Fault Code 118.

There are several factors that can generate Fault Code 118. To resolve these issues, see the relevant pages in the Solutions section.

- Incorrect version of [CAN translator](#) installed
- [Class 3](#) Mode not enabled
- Incorrect [vehicle profile](#) selected
- [Cabling](#) issues
- Tractor [Steering](#) issues

Solutions

Verify that the vehicle has the correct version of CAN translator installed

On the tractor armrest MIDS display:

1. Turn the upper knob to the hash marks at the 1 o'clock position.
2. Press the Enter key and the right arrow key at the same time. The translator software must be version **283-3405-00** or later:



- If the firmware version is incorrect, a CAT dealer must upgrade the software for Autopilot to operate.

- If this does not appear as an option, a CAT dealer must set “Data Link Translator Module Installation Status” to Installed. This can be done only with the CAT service tool.

Table ECM(s)	Description	Value	Unit
Machine Control MT865			
Machine Configuration	Product Sales Model	MT865	
Implement Parameters	Equipment ID	BDS20446	
Calibration Parameters	Tractor Gauge	Standard Gauge	
Configuration Group 1	Steering Pump Capacity Status	125	
Translator MT865	Secondary Steering	Not Installed	
Configuration Group 1	Rear PTO (Power Take-Off) Installation Status	Installed	
Display (Main) MT865	Remote Rear PTO Sw Installation Status	Not Installed	
Configuration Group 1	Transmission Creeper Gear Installation Status	Not Installed	
Implement MT865	Rear Hitch Configuration Status	Not Installed	
Implement Parameters	Rear Hitch Raise/Lower Sw #2 Installation Status	Not Installed	
Calibration Parameters	Implement Hydraulic Pump Capacity Status	63	cc
16 MT865 (GDA00339)	Implement Valve #4 Installation Status	Installed	
Configuration Group 1	Implement Valve #5 Installation Status	Installed	
Configuration Group 2	Implement Valve #6 Installation Status	Not Installed	
	Air Compressor System Installation Status	Not Installed	
	Tractor Air Brakes Installation Status	Not Installed	
	Data Link Translator Module Installation Status	Installed	
	Transmission Maximum Forward Gear	16	
	Transmission Initial Forward Gear	7	

Checking that Class 3 is enabled

On the tractor armrest MIDS display:

1. From the hardware/software page, rotate the main selector knob to the M/E setting, at the 5 o’clock position.
2. Rotate the lower left knob to highlight “P3” (page 3). The highlighted page has a black background.
3. Press the left or right arrow key until the “Class 3” box has a thick, dark border around it.
4. Rotate the small, black knob to highlight the word “ENABLE”. A warning message appears.
5. Press the Enter key to acknowledge the ISO 11783 activation.

At every power cycle, a warning that the ISO 11783 network is enabled appears on the tractor’s MIDS monitor. The tractor will not accept AgGPS Autopilot commands until this warning is acknowledged. To acknowledge the warning, press the Enter key (center right).

Class 3 is enabled.

6. Rotate the main selector knob to the 12 o’clock position.

Verifying the vehicle profile

- Vehicle profile: **CAT MT700** is used on *non-CAN bus-enabled* Autopilot system installations (when the tractor is not CAN bus-enabled). This installation requires cable P/N 54636 connected between P5 of the NavController main harness and a steering interface connected to the tractor’s steering under the steering console.
- Vehicle profile: **CAT MT700 (CAN)** is used on *CAN bus-enabled* Autopilot system installations (when the tractor is CAN bus-enabled). This installation requires cable P/N 54850 connected between P12 of the NavController auxiliary harness and the tractor’s CAN bus, which is a 4-pin

Deutsch DT connector that is in the bottom rear corner of the electrical panel to the right of the driver's seat. The connector has red, yellow, green, and black wires.

Cabling issues

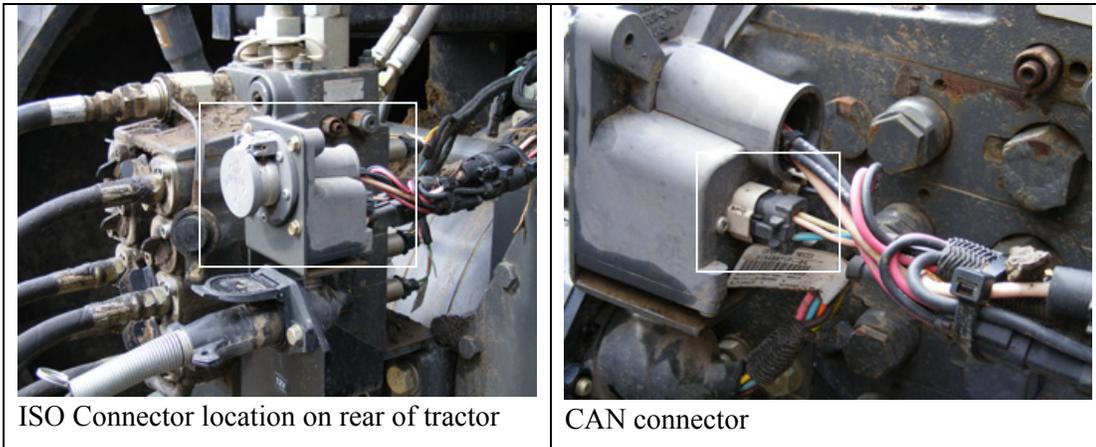
- Make sure that the cable connecting the Autopilot system to the tractor's CAN bus is undamaged and is correctly and securely connected.

Ensure that the cable harness (P/N 56850) is securely connected between P12 of the NavController auxiliary harness and the tractor's 4-pin Deutsch DT connector that is in the bottom rear corner of the electrical panel to the right of the driver's seat. The connector has red, yellow, green, and black wires.

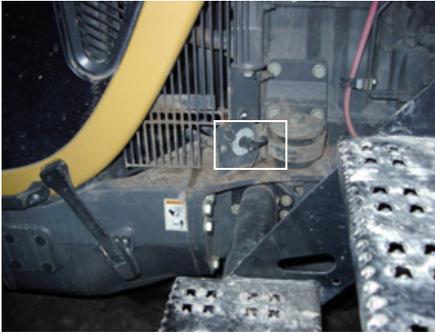
Inspect the entire length of the cable for damage (for example, cuts, crimps, pinches, or wear).

Disconnect each connector and carefully tug on each wire to ensure that every pin is properly locked in place.

- Check that the ISO connector is installed on the rear of the tractor. On the back of the ISO connector are 2 smaller connectors. One connector is a 4-pin DT-Deutsch connector with yellow, green, red, and black wires.



- Check that the grounds on the external harness are correctly connected. Under the right floor board, a harness connects to the tractor. This harness goes to the connector on the rear of the tractor, to chassis ground (unbraided), and cab ground (braided wire).
- Check that both terminators are installed on the external CAN network. They are located:
 - In the connector on the back of the tractor.
 - Under the right side floorboard panel. It is either a 6 or 8-pin Packard connector.
- Check the fuse panel for a loose circuit breaker. The fuse panel is the lower one towards the front of the tractor. Also ensure that the connectors on the outside of the fuse panel are correctly connected.
- Reset the master disconnect switch on the tractor. This is located at the bottom of the operator access stairs.



- Ensure that all the pins are seated in the 70-pin connector on the tractor's translator controller. The controller is under the operator's seat. To access it, remove the center floorboard panel.
- Near the tractor's Translator controller are two 8-pin connectors. Ensure that all the wires are seated properly in these connectors. These connectors are also located under the operator's seat and accessed by removing the center floorboard panel.
- Do a continuity check on the CAN bus wiring:
 - a. Remove the 70-pin connector from the tractor's translator controller.
 - b. Remove the two terminator circuits from the CAN network:
 - i. On the back of back of the tractor, remove the 4-pin DT connector from the CAN bus connector.
 - ii. Remove the 6 or 8-pin Packard connector (locate under the right floorboard) from the harness.
 - c. Check the continuity on the wires between where the terminator circuits were plugged in.

Note: *If you do not disconnect the controller, this check will not work.*

Tractor steering issues

- Make sure that the roading lockout switch on the tractor's armrest is turned OFF. Otherwise, the tractor will not accept any steering commands.
- Make sure that the clutch pedal switch is **not** set to show that the clutch is depressed. Otherwise, the Autopilot system will not accept a steering command. This switch is extremely sensitive and even if the pedal is up, it may indicate that the clutch is depressed. Pull up on the clutch pedal to see if the system will steer.
- If the MT steering controller thinks that the steering system is in open loop control, it will not accept a steering command from an Autopilot controller. Steer the tractor slightly right or left so that the sensor on the steering motor detects motion.

If the issue is still unresolved, reset the master disconnect located at the bottom of the operator access stairs.

More information

For more information on AgGPS Autopilot system fault codes, see the *AgGPS Autopilot Automated Steering System Troubleshooting Guide*.