

Release Date:
October 17, 2022



Technical Service Bulletin

MODEL(S) AFFECTED: T16 (Only machines where customer has noted CAN bus failures/error messages)

SUBJECT: Incorrect CAN bus termination resistance possibly causing CAN bus failures/error messages.

PURPOSE: Remove 120Ω resistor to correct termination resistance if issues/error codes related to CAN bus failures/malfunctions.

NOTES: Some T16 harnesses incorrectly manufactured to include both an external resistor and an internal spliced-in 120Ω resistor. Having these two resistors in parallel, along with the built-in termination resistance at the CAN nodes (main scrub board, POD UI board, and possibly the propel controller board) results in a CAN bus termination resistance lower than the preferred value of 60Ω.

To determine if there is incorrect termination resistance, take a reading with an ohmmeter where the external resistor is installed.

- If internally-spliced 120Ω terminating resistor is present, resistance level will read ~30Ω. This is due to there being four 120Ω resistors in parallel (main scrub board, POD UI board, propel controller, and internal resistor in main wire harness).

- Plugging the resistor back in would result in an additional 120Ω resistor in parallel, lowering the overall termination resistance to ~24Ω.

- Removing the external resistor and taping off/isolating the harness connector should help increase the overall termination resistance closer to 60Ω nominal value.

Questions, contact the Tennant Customer Service Department at (800) 553-8033/
TNV contact 0031 (0) 413241242.

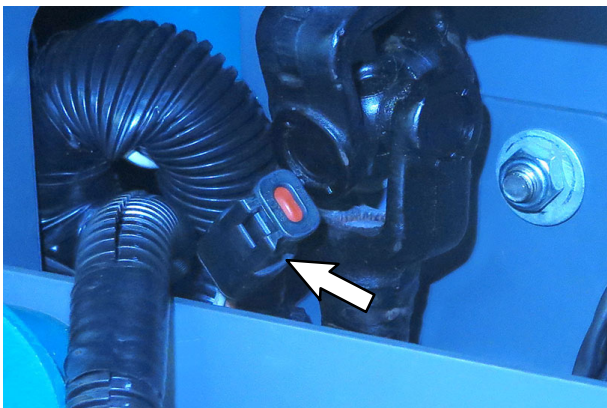
Warranty Information: Standard warranty terms apply.

1 Turn key switch OFF.

2. Disconnect battery cable from machine.

WARNING: Always disconnect battery cables from machine before working on electrical components.

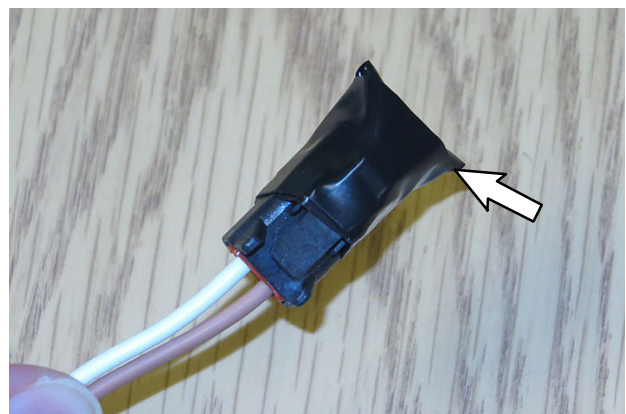
3. Remove electrical panel from machine to access portion of main wire harness/terminal resistor located inside steering support channel.



4. Disconnect resistor from main wire harness.

5. Use ohmmeter to test resistance at main wire harness connection where removed resistor was previously located. Should be nominal value of 60Ω.

If less than 60Ω, do not reinstall resistor, tape connector end with electrical tape so connection is completely covered. Discard removed resistor.



6. Reinstall electrical panel and reconnect battery cable to machine.

7. Contact T.A.C. (Technical Assistance Center) if there are still CAN bus issues.