



Technical Service Bulletin

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High Voltage Cable Exposed Shielding	

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Warranty Statement

The information in this document has no effect on present warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

Contents

Product Affected

- BES CM0904 EV104B

Issue Summary

There are several areas where a high voltage cable has been manufactured with exposed shielding, which can lead to moisture intrusion. These are the areas where the issue is most commonly found:

- The high voltage propulsion motor phase cables that connects the high voltage propulsion inverter to the high voltage propulsion motor, of which there are six.
- The high voltage battery pack wiring harness going to the pack management unit from the high voltage batteries
- The high voltage OEM air conditioning unit wiring harness between the high voltage DC junction box and the roof mounted cabin air conditioner

Symptom:

- Possible isolation issues

Root Cause:

- Exposed high voltage cable shielding

Verification



Figure 1, Example of Exposed High Voltage Cable Shielding.

Resolution

⚠ WARNING ⚠

Follow all local health, safety, and environment (HSE) requirements and lock the vehicle out. See note below for Lock Out Tag Out procedure.

Note : <https://quickserve.cummins.com/qs3/service/suite/xml/en/purpose/10/10-24-1584.html#s32239>
(<https://quickserve.cummins.com/qs3/service/suite/xml/en/purpose/10/10-24-1584.html#s32239>)

To fix high voltage cable shielding issues, follow these steps:

1. Remove the high voltage cable with exposed shielding as identified in the above steps.
2. Apply heat shrink using 3.81 cm [1.5 in] inside diameter (before shrinking) heat shrink tubing, taking the crimp apart is **not** necessary. Heat shrink can be purchased through Grainger®, item number 33VH20.
3. After application of heat shrink to the high voltage cable, slide nut on and assemble.



Figure 2, Heat Shrink Applied to High Voltage Cable.

Document History

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2021-12-14	Module Created

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