



Subject

1266

Electronic Connector Lubrication

Bulletin No.

3666108

Date:

September, 1994

This Service Bulletin provides Cummins' recommendation for cleaning and lubricating electrical connectors.

Cummins Recommendation

Cummins Engine Company recommends the use of dielectric (non-conductive) lubrication (Lubriplate DS-ES, Part No. 3822934) on all electronic connectors EXCEPT throttle pedal connectors. The primary purpose of the lubrication is to reduce or prevent fretting corrosion of the connector pins caused by vibration of the connectors. This in turn reduces pin burning and general deterioration of the connector pins. The proper lubricating procedures **must** be followed closely to avoid getting too much lubricant in the connector port. Lubricant **must** only be applied to the "female" connector pinholes, whether it is on the ECM or the harness. Do NOT apply lubricant to the "male" connector pins.

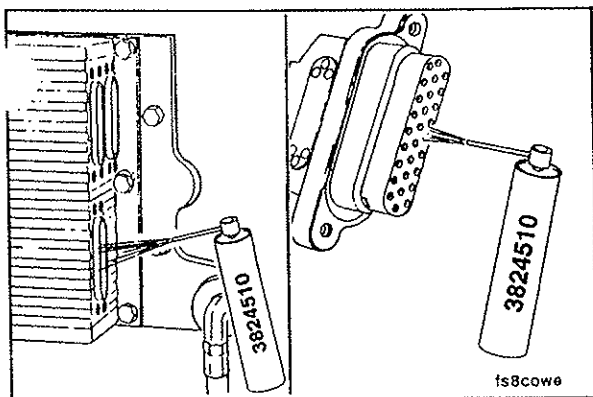
Remember to thoroughly clean the connectors before applying lubrication. Proper cleaning and lubricating procedures are included with this bulletin.

Background Information

Some connectors are more susceptible to fretting corrosion and pin burning than others. Cummins has adopted the above recommendation to fit all connectors across all fuel systems to date (Pace™, PT Pacer™, CELECT™, and CENTRY™). The most critical connectors are the ECM connectors. There are two types of ECM's in use today, the PT Pacer™/CENTRY™ type ECM and the Pace™/CELECT™ type of ECM.

PT Pacer™/CENTRY™ ECM Connectors: PT Pacer™ and CENTRY™ ECM connectors **require** lubrication to help prevent fretting corrosion and pin burning. The risk of applying too much lubricant to these connectors is not critical since there are no vent holes that can get plugged. The lubricating procedures described in this bulletin should be followed.

Pace™/CELECT™ ECM Connectors: Pace™ and CELECT™ ECM connectors do **not** require lubrication, but its use is recommended to decrease the chance of fretting corrosion and maximize the life of the connector pins. The amount of lubricant applied to these connectors is **very** critical. CELECT™ ECM's contain small vent holes in the connector ports. If too much lubricant is applied to the connector, these vent holes can get plugged, causing a vacuum to form inside the ECM. This vacuum could draw water into the ECM if in a wet environment. The lubricating procedures described in this bulletin **must** be followed closely.



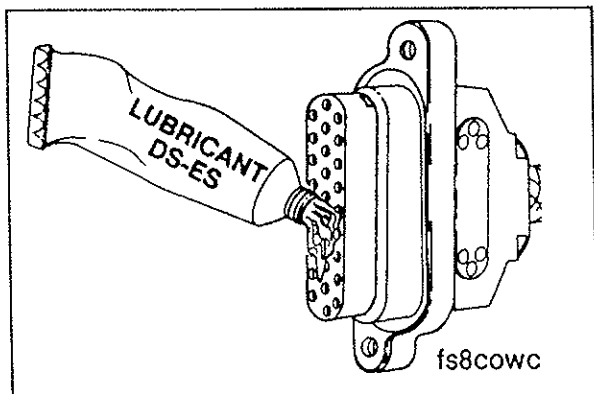
Cleaning



This cleaning procedure **must** be used on all connectors and pin contacts.

Use electronic contact cleaner, Part No. 3824510, to remove all dirt and moisture from the ECM connector ports and the harness connector. Allow the ports and connectors to air dry.

NOTE: Do not blow compressed air onto the ECM ports or connectors. Compressed air can contain moisture due to condensation.



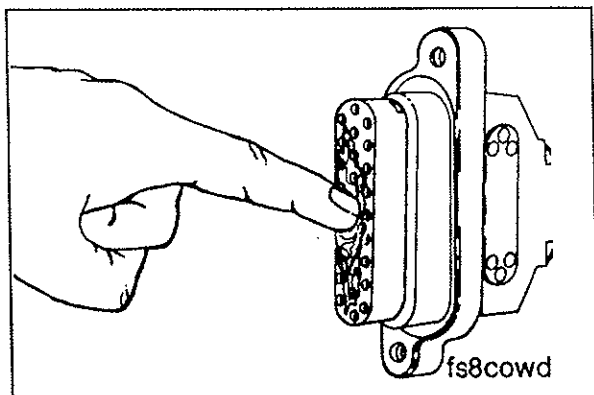
CELECT™/Pace™



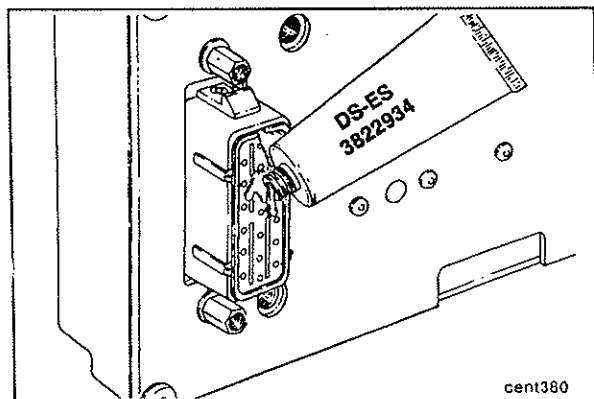
Caution: Use only Cummins recommended lubricant DS-ES, Part No. 3822934. Other lubricants such as lubricating oil or grease in the connectors can cause ECM damage, poor engine performance or premature connector pin wear.



Apply a thin coating of lubricant to the harness connector nose piece.



Spread the lubricant across the connector nose piece so it enters every pin hole and lubricates the contacts. Lubricant should **not** be visible on the surface of the nose piece.



PT PACER™/CENTRY™



Caution: Use only Cummins recommended lubricant DS-ES, Part No. 3822934. Other lubricants such as lubricating oil or grease in the connectors can cause ECM damage, poor engine performance or premature connector pin wear.



Apply lubricant to the face of the ECM/PCU receptacle.

Spread the lubricant across the connector nose piece so it enters every pin hole and lubricates the contacts. Lubricant should **not** be visible on the surface of the nose piece.

