

No.: 06 TS – 27
December 11, 2006

TO: Service Locations

FROM: Technical Service

SUBJECT: **MBE 900 High Tech Grid Heater Installation (EPA04)**

ISSUE

A new high tech grid heater for the MBE 900 has been added to EPA 04 engines produced after July 1, 2006. A check engine light may result in codes 45/03 (Grid Heater Open Circuit) and/or 45/12 (Grid Heater Defective) if there is improper hardware installation and/or incorrect programming.

CAUSE

Hardware installation has been updated and may require the addition of an M8 nut on current units. Also, PLD and VCU programming has been changed to accommodate the new grid heater.

REQUIRED ACTION

Make sure that PLD and VCU parameters are set to the following:

Parameter Location	Parameter Name	Correct Setting
PLD Group 3 Parameter 6	Proportional Valve 6 (PV6)	Future grid heater *e.g. EPA04 MBE 4000
VCU Group 2 Parameter 6	Grid heater	Grid heater in MR-PLD

REQUIRED MATERIAL

Part Number	Quantity	Description
910112008000	1	NUT

REPAIR PROCEDURE

Correct grid heater installation requires the following:

- On the battery power stud, a shouldered nut should remain seated on the housing.
- The battery power eyelet should be mounted on top of the shouldered nut and nut 910112008000 should be added to secure the power eyelet to the device.

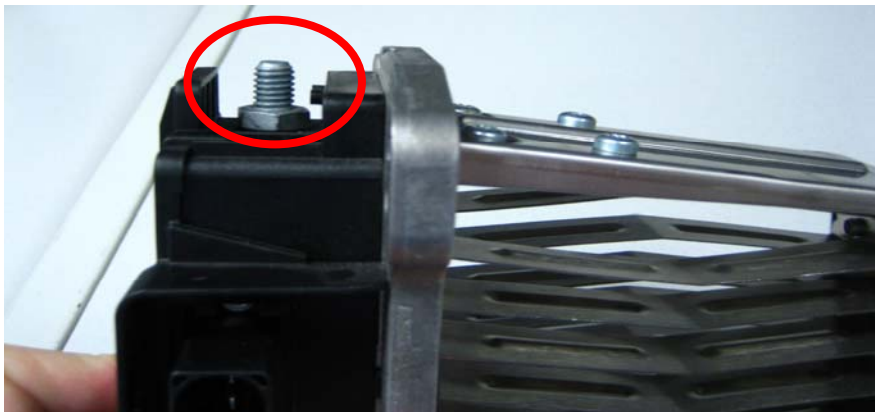


Figure 1

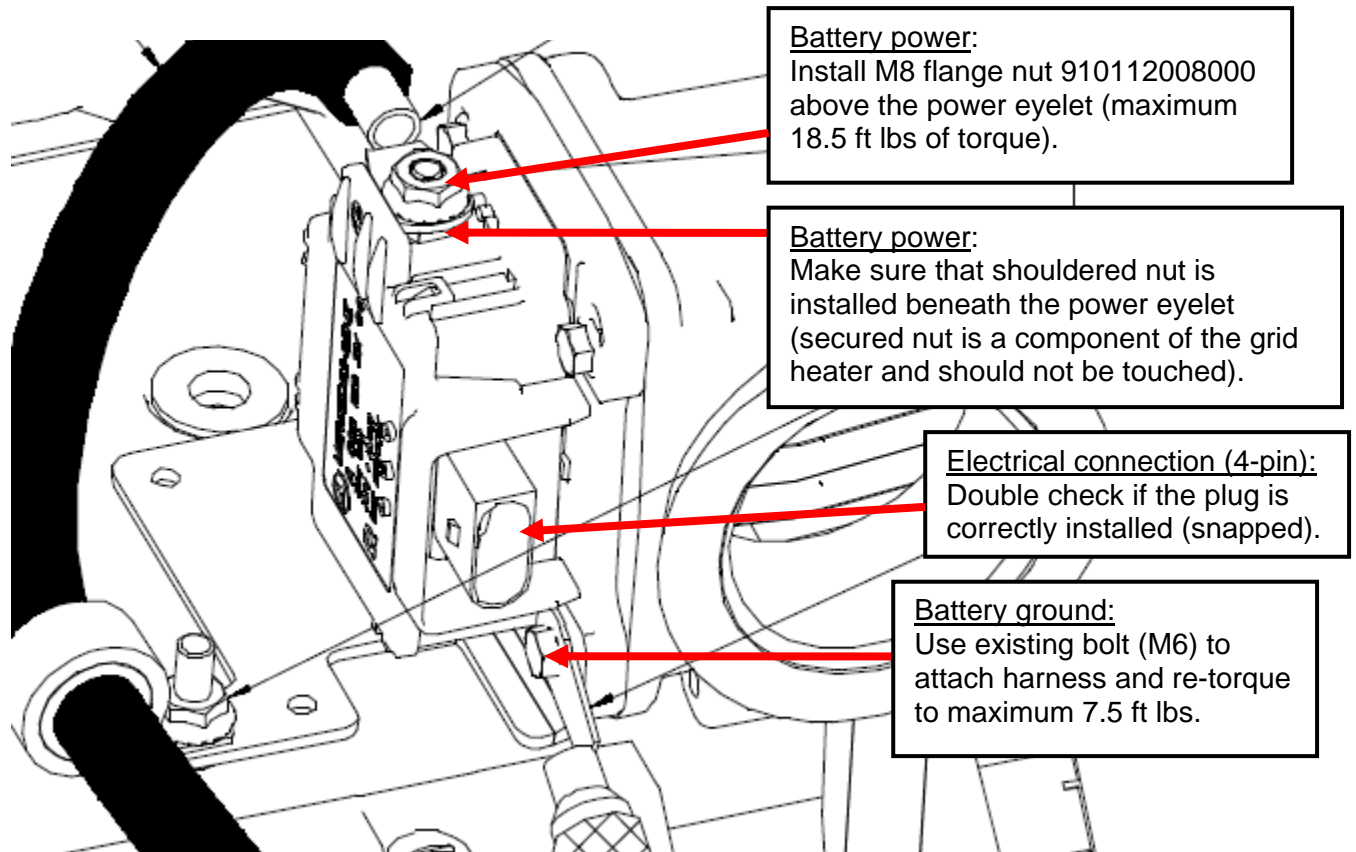


Figure 2 – Grid Heater Installation

The added top nut on the battery power stud should not be tightened past 18.5 ft lbs of torque, and the M6 bolt on battery ground should not be tightened past 7.5 ft lbs of torque.

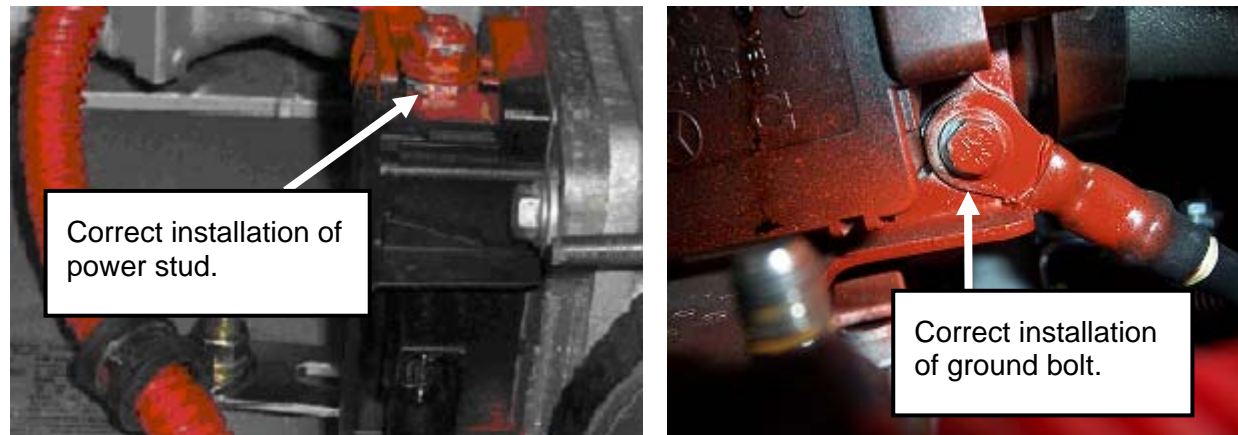


Figure 3 - Correct Installation of Power and Ground Studs

ADDITIONAL INFORMATION

- Do not exceed tightening torque values.
- Remember that sealing faces must be clean.
- No foreign material can be allowed to get into the grid heater during assembly.
- If damage is suspected (e.g. because of dropping, etc.), the grid heater should be replaced.
- For removal of the grid heater, the engine has to be shut down and the battery must be disconnected.

- If removal is required, be sure element is cool.
- Do not touch the heating element as the blades can be sharp.
- The grid heater is not to be opened and repaired.
- The grid heater is only to be used for cold starts (EPA04). This may change in future.
- Use of ether is not permitted.

CONTACT INFORMATION

Please contact the DDC Customer Support Center at 313-592-5800 if you have any questions.