

Technical Note

Freedom Inverter/Chargers

512-0081-01-01 Rev 1

Charger Operation With Onan 6.3 kW NHE LP Generator

The Onan 6.3 kW NHE LP Emerald generator has exhibited some unusual operation upon startup and when running various load combinations when used with Freedom Chargers. This unusual operation is described as surging or hunting. Initially it was observed that if the charger on the Freedom Inverter was turned off, the surging would stop. Further testing showed that other combinations of inductive loads, running together with the Freedom Charger turned OFF, would also cause the surging.

During this surging period, the output voltage and frequency of the generator is unstable. Heart Interface has modified the Freedom Inverter/Charger software to accommodate this instability of the generator by adding a negative feedback characteristic to the charging algorithm. The negative feedback basically tells the charge controller to back off its current requirement if the input frequency decreases. This software upgrade will correct minor generator surging problems. All inverter/chargers manufactured after the following dates and serial numbers include the revised software. The software revisions and their part number are listed below:

Inverter model	Software	P/N	Revision Date	Serial No.
Freedom 10	68-0001-12	F10D61AM	10/10/94	90188
Freedom 20	68-0004-12	F20D61AJ	10/10/94	90445
Freedom 25	68-0010-12	F25D61AG	10/10/94	87221

This software upgrade is available from Xantrex.

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Part number: 512-0081-01-01 Rev 1

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