Characteristics and trouble-shooting concerning Heidenhain-EnDat® systems

If using specific new EnDat® encoder systems (ECN1313, ERN113, …) possibly the problem may occur that bits concerning the alarm byte will be arbitrarily set. This is – as per Heidenhain – possibly caused in case that the encoder is plugged or unplugged under voltage. The result is that this encoder gives out all signals correctly but generates the message 'encoder error, encoder 2'. As a result of this the inverter systems DSV5444/5445 lose their operating state (possibly this may occur to competitive products too). Heidenhain is going to reengineer this encoder series.

If losing the operating state at DSV-systems and the correct program is transferred, the wiring is correct and all other conditions for operating state are given (e.g. PTC thermistor plugged) the SSI/EnDat® option card controller must be updated from 'ssi6030d' to higher version 'ssi6030e'. For this the controller has to be changed or reprogrammed by using the files and instructions 'ssi6030e.*' or change the option card completely. After updating to version 'ssi6030e' the inverter can be easily switched on with plugged encoder. The EnDat® program routine erases now all bits, that means that the encoder even will work now with version 'ssi6030d'.
So the encoder don't have to be dismounted! There is no first initialisation necessary!

The files 'ssi6030e' are via the WinDietz update function available or you can download 'AUDZ.ZIP' from our website in the download area (after 'Registrierung'). Using WinDietz choose the checkbox 'AUDZ' manually, if this folder never before has been downloaded (after this 'WinDietz' identifies all firmware updates automatically).
The programmed controller you can order for 50,- Euro and if you send back the old controller we gave you a credit note of approx. 25,- Euro. You can also change the whole SSI/EnDat® option card (please make sure if you have sidewise located or frontal located connectors). For this please contact our sales department.

Supplied inverters with SSI/EnDat® option card from up to 17.07.2006 are equipped with the newest controller version, thus the 'plugging under voltage by mistake' is no problem anymore. Nevertheless the encoder suffers because of plugging under voltage (this can cause an exclusion of warranty on the part of Heidenhain). Please note: the initialisation of EnDat® systems may take up to 10s (after switching on the inverter), during this time the encoder should be in no case unplugged. After the inverter's mains switch off please wait 30s minimum, before you plug or unplug the encoder! By the way, after switching on the inverter it is normal that the signal 'BB' is ready after 10s because EnDat® systems need a lot of time for the first read in of the absolute value.

Other known problems concerning EnDat® systems: the panel 'FUControl' for DSV5444/5445 (especially 'external' versions) deters the EnDat® routines from pass through e.g. the panel is (or was already) plugged before switching on the inverter's mains. This effect occurs especially at inverters that are equipped with SSI/EnDat® and ACP/DCP option card. To correct this please use the actual July 2006 firmware for the panels (internal FUC44.BIN and external FUC_EXT.BIN). This files you can also find in the folder AUDZ. EPROMs can also be ordered programmed (please send back 'old' EPROMs and specify if 'internal' or 'external').

Please always transfer the newest lift programs (at the moment version 'Index 99' and higher). The actual firmware is version of 'April 2006'. If you are not sure, wether your inverter has got the actual version or not please contact our technical department, tell us the M-number and you can get all software information about your inverter.