Commander SE HF Trip Codes

This document pertains to all Commander SE models

Commander SE HF Faults

- **HF01**  **SOFTSTARTFAIL**  Soft start relay failure detected by DSP
- **HF02**  **OIFailure**  OI trip detected at power up
- **HF03**  **FANFAILED**  Cooling fan not running (if fitted). No PWM detected by micro
- **HF70**  **LEVEL1OVERRUN**  User code level 1 overrun
- **HF71**  **LEVEL2OVERRUN**  User code level 2 overrun
- **HF72**  **LEVEL3OVERRUN**  User code level 3 overrun
- **HF73**  **DSPCOMMS**  Communications between processor and DSP not working
- **HF74**  **DPOVERRUN**  DSP code overrun
- **HF83**  **POWERBOARD CODE**  Incorrect power board code
- **HF88**  **WDOG**  User code watchdog failure
- **HF90**  **STACKOF**  User code stack overflow
- **HF91**  **STACKUF**  User code stack underflow
- **HF92**  **ILLOPCODE**  User code illegal opcode
- **HF96**  **ILLADDRESS**  User code illegal address
- **HF98**  **INTCRASH**  User code interrupt crash error

These trip codes are internal to the Drive and are not caused by the customer. With most of these trips, if the Drive is powered down and back up, the trip will be cleared and the Drive will run as normal.

**HF01** - If the innrush/softstart relay does not close correctly on power up or opens while the Drive is running, the Drive will trip on HF01.

**HF02** - If the Drive detects an OI - overcurrent trip on power up, the Drive will trip on HF02 and not OI.
HF03 - If a Commander SE is fitted with a heatsink cooling fan and it stops working, the Drive will trip on HF03.  See Note Below

HF70, 71 & 72 - The user interface code (control PCB microprocessor) runs on different priority levels and each level has a certain time to complete its tasks. If for some reason the code cannot complete its task within the allotted time, it will trip on HF70, 71 or 72.

HF73 - The 2 microprocessors talk to each other via 2 wire RS485 serial communications. If this internal serial communication link fails, the Drive will trip on HF73.

HF74 - As HF70, 71 & 72 but with the DSP (Digital Signal Processor) on the power PCB.

HF83 - The DSP reads a voltage from the power pcb to determine the correct Drive kW size. If this voltage is different to an expected value, the Drive will trip on HF83.

HF88, 90, 91, 92, 96 & 98 - While the user code is running, it is continuously checking that the data it is receiving is valid, the addresses are valid etc. If it detects a problem, it will trip on one of the trips codes HF88, 90, 91, 92, 96 & 98.

WARNING:  ALLOW SUFFICIENT TIME FOR THE DRIVE TO DISCHARGE
Recommended Time is 10 minutes after power down
Measure from DC+ to DC- to ensure the buss voltage has fully discharged.

DO NOT ASSUME POWER IS OFF BECAUSE THE DRIVE DISPLAY APPEARS
DEAD OR NO FANS ARE HEARD. THE VOLTAGE APPLIED TO THIS DRIVE CAN
BE LETHAL IF TOUCHED!

HF03  is typically an indication that the cooling fans at the bottom of the Drive are not spinning. With power off and Drive discharged, one should check into the fan area to check for foreign debris to see that the Fan(s) can spin freely. Often times customers find shipping popcorn, tie wraps and other material in the fan area.

HF Faults are not recorded in the Drive Historical Fault Log

Hardware Faults are typically fatal. If powering down and letting the drive sit for 5 minutes before re-application of Power does not clear the HF Fault it would require Drive repair.

Contact our Repair Center at 716-774-0093