Fault Codes N700E

The purpose of this guide is to help you find the answer to what fault the drive is experiencing. We will show you how to find out the last few fault codes the N700E has had and how to find out important information when the fault occurred.

In the D parameter group you can find the current fault as well as the last 3 faults the VFD has had. The first page below will show you which parameters will show you the faults and the information provided with each fault. D13-D17 will give you the code for the fault with the frequency, current, and DC bus voltage at the time the fault occurred. The information provided by D13-D17 will be very helpful in trouble shooting if you need to call for technical support.

The page following the D parameters will show you the fault codes with an explanation of what the fault code means. Knowing what the fault code means will help trouble shoot the issue and indicate where the issue may lie, whether it is a VFD issue or an issue with an external source.

- ***d13*** ***Current Fault***

When fault occurs, the VFD automatically displays this parameter.
Additional information of the fault can be accessed by using up arrow key.

Fault Code

- Press the UP key
  - Output frequency at time of fault
- Press the UP key
  - Output current at time of fault
- Press the UP key
  - DC bus voltage at time of fault
- Press the FUNC key
  - Back to d13 display

- ***d14*** ***Previous Fault 1***

Displays last fault that occurred. Additional information can be accessed as shown above in d13.

- ***d15*** ***Previous Fault 2***

Displays Fault 2 that occurred. Additional information can be accessed as shown above in d13.

- ***d16*** ***Previous Fault 3***

Displays Fault 3 that occurred. Additional information can be accessed as shown above in d13.

- ***d17*** ***Fault Count***

Displays accumulated fault count.

4. Diagnostics/Trouble Shooting

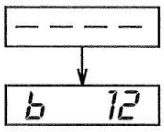
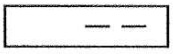
The fault codes listed below are provided to protect both the VFD and the motor from damage. Some of the codes identify when a condition is occurring that may cause more damage.

4.1 Fault Codes

Name	Cause(s)	Error Code
Over current	The VFD output current exceeds the rated current by more than 200%. This may occur if the motor is locked or the load is excessive.	E04
Motor Overload	When the FLA (Full Load Amp) rating of the motor is exceeded, the internal electronic thermal overload protection circuit is activated to protect the motor.	E05
Overvoltage	If the regenerative energy from the motor or the main power supply voltage exceeds the DC link specification, the protective circuit activates to shut off the VFD output.	E07
Communication Error	Communication error between inverter and its operator for all optional cards. When the Reset signal persists for more than 4 seconds or reading invalid parameter address will cause the error	E60
Under voltage	If the input voltage drops below the low voltage detection level, the control circuit may not function properly. So when the input voltage is below the specified level, the inverter output will shut off.	E09
Output Short Circuit	This occurs when excessive current is seen at the output terminals of the VFD. This condition causes the VFD to shut off it's output.	E04 or E34
USP Error	The USP error is indicated when the power is turned on with the Inverter in RUN state. (Enabled when the USP function selected)	E13
EEPROM	The VFD output is shut off when the EEPROM in the VFD has an error. The condition can occur due to external noise, excessive temperature, or other factors.	E08
External Interlock 1	An Intelligent Input terminal has been programmed to monitor an external condition and that input has went low(false). When this input goes false a fault condition occurs.	E12
External Interlock 2	An Intelligent Input terminal has been programmed to monitor an external condition and that input has went low(false). When this input goes false a fault condition occurs.	EE2
External Interlock 3	An Intelligent Input terminal has been programmed to monitor an external condition and that input has went low(false). When this input goes false a fault condition occurs.	EE3
External Interlock 4	An Intelligent Input terminal has been programmed to monitor an external condition and that input has went low(false). When this input goes false a fault condition occurs.	EE4
External Interlock 5	An Intelligent Input terminal has been programmed to monitor an external condition and that input has went low(false). When this input goes false a fault condition occurs.	EE5
External Interlock 6	An Intelligent Input terminal has been programmed to monitor an external condition and that input has went low(false). When this input goes false a fault condition occurs.	EE6

Input Phase Loss	This function detects a phase loss on the input AC source. Detection is performed by monitoring the voltage ripple on the DC bus. This voltage ripple causes heat to the Bus Capacitors which shortens their life.	E20
Inverter Over Temperature	When the temperature in the main circuit exceeds a pre-defined level the VFD faults. Usually caused by a cooling fan failure or by a clogged heatsink or filter.	E21
Ground Fault	This condition occurs when the leakage current to ground exceeds a pre-defined level. Fault is only detected when the VFD is running.	E14
Inverter Overload	When the current rating of the VFD is exceeded, the internal thermal overload protection circuit is activated to protect the output transistors. The time it takes the VFD to trip is dependent upon the carrier frequency, the load, the ambient temperature and the power rating.	E17
Braking Resistor Overload	When the BRD exceeds the duty cycle of the braking resistor this fault will occur. The circuit is designed to calculate and protect the braking resistor from thermally overheating.	E06
OVS Fail	The OVS output frequency is higher than maximum OVS output frequency during the setting time when the OVS function is enabled	E02
Fan Fault (300~750LF Only)	The Fan fault is indicated when the fan is not rotated	E33
System Overload Detection Fault	The output current of the drive is greater than the detection level set for this feature when it is enabled	E23
System Underload Detection Fault	The output current of the drive is less than the detection level set for this feature when it is enabled.	E24
ProfibusDP Fault (Option)	ProfibusDP optional card only. Host disconnection, or invalid host setting cause this error	E40
DeviceNet Fault (Option)	DeviceNet optional card only. Communication cable power loss, disconnect to host, or invalid host setting cause this error	E41

Other display

Contents	Display
It is displayed when initialization of data is processing (It is not displayed when initialization of history is processing.)	
There is no data available (Trip history, PID feedback data)	
The auto tuning process has successfully completed.