

Contents

1 Diagnostic Message Description	1-1
1.1 Overview of the Diagnostic Message Descriptions	1-1
Diagnostic Message Types	1-1
Construction of a diagnostic message	1-1
2 Description of Diagnostic Letters F... and E...	2-1
2.1 Error Diagnostic Messages	2-1
UL Motor Type not Reported	2-1
PL Default Value of the Parameter Load	2-1
F207 Switching to an Uninitialized Operating Mode	2-2
F218 Heatsink Overtemperature Shutdown	2-2
F219 Motor Overtemperature Shutdown	2-2
F220 Bleeder Overtemperature Shut Down	2-3
F226 Undervoltage Error	2-3
F228 Excessive Deviation	2-4
F229 Motor Encoder Error: Quadrant Error	2-4
F248 Low Battery Voltage	2-5
F262 Status Outputs Short Circuited	2-5
F276 Absolute Encoder Error, Position Deviation > P-0-0097	2-6
F630 Travel Limit Value Exceeded	2-6
F644 Travel Limit Switch Detected	2-7
F822 Motor Encoder Failure: Signal too Small	2-7
F860 Overcurrent: Short in Powerstage	2-8
F870 +24 V Error	2-8
F873 Power Supply Driver Stage Fault	2-9
F878 Velocity Loop Error	2-9
F879 Velocity Limit Value Exceeded (S-0-0092)	2-10
F895 4 kHz Signal Error	2-10
2.2 Warning diagnostic messages	2-11
E250 Heatsink Overtemperature Warning	2-11
E251 Motor Overtemperature Warning	2-11
E252 Bleeder Overtemperature Warning	2-12
E253 Target Position Out of Range	2-12
E254 Drive not Referenced	2-13
E255 Feedrate-Override(S-0-0108) = 0	2-13
E256 Torque Limit Value = 0	2-13
E257 Continuous Current Limiting Active	2-14
E258 Selected Process Block is not Programmed	2-14
E259 Command Velocity Limit Active	2-14
E264 Target Position not Representable	2-15

E825 Overvoltage Warning	2-15
E830 Position Limit Value Exceeded	2-15
E831 Position Limit Value Reached During Jogging	2-16
E844 Travel Limit Switch Activated	2-16

3 Description of Diagnostic Letters C... and A... 3-1

3.1 Command Diagnostic Messages	3-1
C100 Communication Phase 3 Transition Check	3-2
C101 Invalid Communication Parameters (S-0-0021)	3-2
C102 Limit Error Communication Parameters (S-0-0021)	3-2
C200 Communication Phase 4 Transition Check	3-2
C201 Invalid Parameter Block (-> S-0-0022)	3-3
C202 Limit Error Parameter (-> S-0-0022)	3-3
C203 Parameter Calculation Error (-> S-0-0022)	3-3
C207 Loading Error LCA	3-3
C208 Invalid SSI Parameter (-> S-0-0022)	3-4
C211 Invalid Feedback Data (-> S-0-0022)	3-4
C212 Invalid Amplifier Data (-> S-0-0022)	3-5
C213 Position Data Scaling Error	3-5
C214 Velocity Data Scaling Error	3-6
C215 Acceleration Data Scaling Error	3-6
C216 Torque Data Scaling Error	3-7
C217 Motor Feedback Data Reading Error	3-7
C220 Motor Feedback Initialization Error	3-7
C227 Modulo Range Error	3-8
C300 Command: Set Emulation - Absolute Value	3-8
C300 Set Absolute Measuring	3-8
C301 Setting Absolute Measurement not Allowed, Drive Enabled	3-8
C302 Absolute Measurement System not Installed	3-8
C400 Switch from Operational to Parameter Mode	3-9
C401 Active Drive, Transition is not Permissible	3-9
C500 Reset Class 1 Diagnostic	3-9
C600 Drive Controlled Homing Procedure	3-9
C601 Homing Procedure not Possible without Drive Enable	3-9
C602 Zero Switch to Home Reference Error	3-10
C603 Homing Procedure not Possible in this Operating Mode	3-10
C604 Homing Procedure not Possible with Absolute Measurement Control	3-10
C700 Basic Load	3-11
C800 Load Basic Parameters	3-11
3.2 State diagnostic messages	3-12
A002 Communication Phase 2	3-12
A003 Communication Phase 3	3-12
A010 Drive Halt	3-12
A012 Control and Power Sections Ready for Operation	3-12
A013 Ready for Power	3-12
A100 Drive in Torque Mode	3-12
A101 Drive in Velocity Mode	3-12
A203 Position Control/Stepper Drive Interface	3-13

A204 Position Regulation without Lag/Stepper Drive Interface.....	3-13
A206 Position Regulation/Positioning Drive	3-13
A207 Position Regulation without Lag/Positioning Interface	3-13
AF Drive Enable	3-13
JF Jogging in the Positive Direction	3-13
JB Jogging in the Negative Direction	3-13

4 Exchanging Drive Components 4-1

4.1 Procedure for Exchanging Devices.....	4-3
Exchange the DKC:.....	4-3
Motor exchange:.....	4-4
Cable exchange:	4-5

Directory of Customer Service Locations