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Service Manual

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COMPUTERIZED ELEVATOR CONTROL CORP.
Moving People. Moving Business.



SECTION 15 - CONTROLLER ERROR CODE DEFINITIONS

The following sequential list of error codes indicates various fault conditions on the controller and elevator.

ERROR	DEFINITION OF CONTROLLER ERROR CODE
1	Division by zero.
2	Program Sequencing error
3	Real Time Clock program processing error: Indicates that insufficient time was available to process the control information.
4	Invalid internal car position (such as zero): The position of car was internally set to zero in program.
5	Not used on Meridia™.
6	Invalid Motion Control sequence or control parameter: This is related to the Digital drive system.
7	Calculated slowdown target to floor was negative during Deceleration or Leveling modes.
8	Velocity of the car is 25% in excess of contract speed. Verify Car top encoder alignment and associated wiring. Digital encoder feedback from digitizer was under 9 fpm (0.046 m/s) while demand velocity exceeded VEE parameter setting.
9	Panic motion fault error: This error occurs when: a) There is an opposite direction between demand and velocity. b) There is a demand direction but no velocity. c) There is a velocity direction but no demand.
10	Digital Tach error: Indicates excessive differential between the "Demand" velocity (digital speed pattern) and the Digital speed reference (from encoder DPP). <u>Possible problems:</u> a) Improper setting of the Regulator on the drive. Check response and inertia settings. b) Verify the connections to DPP from encoder and the encoder alignment on the rail. c) The drive system motor field response (Make sure that motor field is producing proper torque).
11	Limit position reference error: When a terminal slowdown limit switch first opens, the switch's actual position count is compared against its reference position count (ULR or DLR parameter settings), check ULB and DLB. If the <u>difference</u> between the actual position and the reference position is greater than the LPE parameter setting, an emergency slowdown will occur. Remedy this problem by adjusting ULR and DLR accordingly. Note that LPE should be adjusted to a maximum of 20 when setup is completed.
12	Not used on Meridia™.
13	Invalid Direction error: Mismatch between Up or Down direction signal & encoder. Check Motor encoder coupling for tightness.
14	Terminal limit position error: The position of the car was invalid at the bottom most or top most limit switch (SD1 or SU1). Check to see if there were preset errors prior to this. (See error 15.)
15	Position preset error: Error 12 is a parity error from input signals. Position of car is not altered. When a preset position error occurs, the car position is altered and the DPP will be reset to floor position reference when car leaves the floor. Run the car floor to floor to ascertain that floor preset signals are valid. This error is more likely to occur after an emergency stop, or from Inspection to Auto operation. It is also possible for DPP to go "off" but that is not usually the source of problem.
16	Dispatch communication time-out: Verify serial communication link connections to each controller. This error usually occurs if the dispatch controller or car #1 for duplex installation is operational.
17	Motion time-out: This error occurs when too much time elapses during a run sequence.



ERROR	DEFINITION OF CONTROLLER ERROR CODE
18	Control response time-out: Occurs when a start sequence is initiated from computer and the BK relay fails to energize. Verify connections to the Up and Down output modules, the SM and MC circuitry, and connections to the BK input module. Check hoistway doors for any bounce when final close occurs. Check door interlock time parameter DIT and increase if necessary.
19	Up Pilot and Down Pilot signal wire on at the same time. Check wiring.
20	Digital Encoder loss time-out: No DPP input signal. This will initiate an emergency slowdown. Check operation and alignment of car top encoder.
21	FLASH EPROM Read/Write error: This error will prevent the car from operating. Verify the settings of PAR, FCP, ULR, DLR, TSV and ESV parameters with the terminal.
22	Terminal limit switch emergency slowdown: Velocity of car > TSV adjustment at terminal landing. Verify car velocity when terminal limit switches open with <ULB> and <DLB> commands.
23	Not used on Meridia™
24	Drive fault: Indicates an encoder fault from the drive. This error occurs when there is excessive variance between the analog demand velocity and the analog tach reference velocity on non serial drives and M.G.'s.
25	Start Sequence Error: A start sequence was initiated, in auto or inspection, during a drive fault. Reset and/or correct fault trip condition on drive. Also, verify associated wiring. Check CCU display.
26	Motion Fault Error: If doors were closed, there was an Up or Down signal without Delta (M.G.), ICS, or GLR input modules. Check CCU display. If doors were already open, either of the following occurred: a) an up or down signal without Delta, ICS, GV, HS, CS, Normal Power or Auto input modules; or b) an up or down signal without LVE output.
27	BK or MC control failure: If either BK or MC controls are closed when no directional relays are energized, the processor prevents a start sequence from occurring. Check aux. contacts that are connected to the related input.
28	The brake switch did not function. (This error is valid only for jobs with a brake switch.) Check brake to ensure it is picking fast enough to open the brake contacts when car starts.
29	Slowdown Terminal Limit Switch Error: Occurs when start sequence is in up direction with an up slowdown limit open and position count indicates that car is not at that limit switch. The reverse is true for a start sequence in down direction with a bottom limit switch incorrectly open.
30	Car is moving without a demand velocity from CCU, meaning that SM, MC, BK and Up or Down relays were on.
31	Car was on Next-Up (dispatch mode) and went into service protect mode. Check AST parameter.
32	Reserved
33	Reserved
34	Reserved
35	Look-ahead distance calculated too short. Decel Roll Time is set too long (DRT); or Distance Look Ahead Multiplier (DLM), Performance Constant (PEK) or Top Speed Travel Distance (TFD) are set too small.
36	Variable has wrong value
37	Not used on Meridia™
38	Not used on Meridia™
39	Not used on Meridia™
40	Level velocity too high when car reached final leveling. Velocity of car was greater than 70 fpm (0.36 m/s) at 2 inch (5 cm) point. Check DER, TLM, Drive response.
41	Trying to re-level in level mode. Indicates software error. Should not occur - Call CEC.



ERROR	DEFINITION OF CONTROLLER ERROR CODE
42	Doing a final stop in wrong digitizer mode. Indicates software error. Should not occur - Call CEC.
43	Gate and Lock switch opened when car velocity was greater than maximum level (MLV parameter) setting when doors are open. Check DER, Drive response.
44	The Gate and Lock (GLR) input was not activated when the doors were fully closed. Check interlock clearance.
45	The Door Closed Limit (DCL) input was not activated when the doors closed. Check limit switch for proper operation.
46	The Door Open Limit (DOL) input was not activated when the doors open. Check limit switch for proper operation.
47	Reserved
48	Reserved
49	Reserved
50	The generator voltage increased without demand from CCU. The SUF input was activated while car was not trying to move. Car CCU must be powered off and then on to allow car to run.
51	The SUF input did not occur during a run. On cars with Motor Generator (MG) sets, the SUF relay must pick up each run to indicate that the relay functions properly.
52	Car out of mid level zone with gate and lock input modules not activated (GLR); Car not moving. Car CCU must be powered off and then on to allow the car to run. Check brake re-level setting.
53	Car out of mid level zone with gate and lock input modules not activated; Car still moving without demand from the CCU. Check Brake.
54	Up or Down encoder motion detected 1.5 seconds after the brake dropped.
55	SCR temperature overload activated.
56	Max run timer timed-out during a run: Run sequence of elevator exceeded the Maximum Run Timer (MRT parameter) adjustment.
57	Not Used on Meridia
58	An auto fault reset occurred. A fault condition (Drive/MG or Trip/SCR) caused by drive system has been reset by CCU. If fault occurs more than 3 times within 1 hour, CPU will not reset automatically. After the 3rd time, the fault must be reset manually.
59	Up or Down motion but no Up or Down signal.
60	Up or Down signal but no Up or Down motion.
61	Car did not decelerate during a drive fault.
62	Drive had a frequency overspeed.
63	Drive went into Base Block during a run.
64	Rope Gripper fault error.
65	Gripper time trip expires
66	Both ACU & ACD input modules on simultaneously, or, AUTO input module was on with either ACU or ACD input module on. Check module and wiring.
67	Both PTU & PTD input modules on simultaneously, or, AUTO input module was on with either PTU or PTD input module on. Check module and wiring.
68	Both TIU & TID input modules on simultaneously, or, AUTO input module was on with either TIU or TID input module on. Check Module and wiring.
69	Top slowdown limit switch open while in Bottom Access Mode. Check switch and wiring.
70	Bottom slowdown limit switch open while in Top Access Mode. Check switch and wiring.
71	VIC device error has occurred.
72	Brake device error has occurred.
73	Motor field device error has occurred.
74	Communication packets were lost on local COMM port (VIC, BK, MF or MIC devices) while the car was moving.



ERROR	DEFINITION OF CONTROLLER ERROR CODE
75	Communication packets were lost on car COMM port (TOC or COP devices) while car was moving.
76	Communication packets to the CTC board were lost while the car was moving.
77	Motor field device error. Verify motor field current jumper configuration is set to correct current setting.
78	Lost the GV (Governor) input while the car was moving.
79	Lost the HS (Hatch Safety) input while the car was moving.
80	Lost the CS (Car Safety) input while the car was moving.
81	Lost the ICS (In-Car Stop Switch) input while the car was moving.
82	Lost the DRV (Drive) module input while the car was moving.
83	Lost the RDY (Ready) module input while the car was moving.
84	Lost the SM (System Master) module input while the car was moving.
85	Lost the MA (Master Contactor) input while the car was moving.
86	Lost the BK (Brake Contactor) input while the car was moving.
87	Car cannot be a Master (Dispatcher). GRPO was asserted but the GRPI input was not activated.
88	Real time clock control interrupt failed. Detected by secondary watch dog timer.
89	Dispatch sequencer clock interrupt failed. Detected by secondary watch dog timer.
90	Second interrupt timer failed.
91	In Car Inspection input module on while car was on auto or while both top and bottom car calls on. Check wiring.
92	GL, DLS, or CGS input modules on when door reached full open (DOL switch input) at the floor.
93	Intelligent device powered up reset after previous initialization.
94	EMSD was lost unexpectedly: lost FLT, BK(FLT), EMST, or DF.
95	Drive encoder not in UP direction when car running up. Check encoder wiring.
96	CCU board encoder signal not in UP direction when car running up. Check encoder wiring.
97	VIC device encoder signal not in UP direction when car running up. Check encoder wiring.
98	Drive encoder signal not in DOWN direction when car running down. Check encoder wiring.
99	CCU board encoder signal not in DOWN direction when car running down. Check encoder wiring.
100	VIC board encoder signal not in DOWN direction when car running down. Check encoder wiring.
101	Car did not decelerate as expected in an emergency stop.
102	Not used on Meridia™
103	Not used on Meridia™
104	DZ in the motor room not on when expected (on from the CTC). Check wiring.
105	Not used on Meridia™
106	DPP count off by more than 5 counts when car is level at floor. Check car top encoder alignment.
107	Both UP and DOWN motion true during DPP interrupt. DPP count not updated.
108	No UP or DOWN motion during DPP interrupt. DPP count not updated.
109	DZ signal from MIC board & TOC board is on despite an absence of command from CPT board.
110	Car tried to re-level 25 consecutive times. Check Brake and RVE parameter.
111	CCU velocity feedback zero when demand > 40 fpm. (0.2 m/s)
112	VIC velocity feedback zero when demand > 40 fpm. (0.2 m/s)
113	Not used on Meridia™
114	GL lost during a start sequence. Check DZ aux. contacts in GL circuit.
115	CGS or DLS lost during a start sequence.
116	LVE not dropped during a start sequence. Check module and wiring.
117	Multiple cars Master at the same time. Check CTG cross connect wiring.



ERROR	DEFINITION OF CONTROLLER ERROR CODE
118	Too many Hall Call (HC) devices selected.
119	Encoder velocity greater than window.
120	Brake did not lift when expected: no Brake Lift Switch (BLS) input was generated when Brake Contactor (BKC) output was generated and/or no Brake Relay (BKR).
121	Brake did not drop when expected: no Brake Lift Switch (BLS) input was generated when Brake Contactor (BKC) output was generated and/or no Brake Relay (BKR).
122	Deceleration roll error: roll target velocity higher than demand velocity.
123	Car was placed on gate and lock bypass while the car is on inspection.
124	BKC output was turned on but SM and MC did not turn on in a maximum time allowed. Check BK input signal.
125	Car EEPROM checksum error.
126	Car battery RAM checksum error.
127	Car EEPROM and battery RAM checksum error.
128	Group EEPROM checksum error.
129	Group battery RAM checksum error.
130	Group EEPROM and battery RAM checksum error.
131	Invalid access code EEPROM byte write.
132	Invalid access code EEPROM word write.
133	Selector up advance error (Overlay's only).
134	Selector down advance error (Overlay's only).
135	Load weigher offset error. Load weigher must be re-adjusted.
136	CCU thermal switch fault. The CCU temperature is too high.
137	Not used on Meridia™
138	Not used on Meridia™
139	Not used on Meridia™
140	ETS Up limit error: The switch did not activate when expected from the position count reference. Check switch activation from cam and EUR parameter.
141	ETS Up Software limit error: The switch activated but it did not match the position count reference. Check switch activation from cam and EUR parameter.
142	ETS Down limit error: The switch did not activate when expected from the position count reference. Check switch activation from cam and EDR parameter.
143	ETS Down Software limit error: The switch activated but it did not match the position count reference. Check switch activation from cam and EDR parameter.
144	Low Battery Voltage on CCU. Replace battery.
145	LTR parameter rate set too low during emergency deceleration at terminal limit.
146	Comm port error. Extra error byte 1 gives port num. This error code is used for software debugging.
147	Diagnostic buffer overflow error: buffer size exceeded max. This error code is used for software debugging.
148	CPE position count is incorrect according to CCU. Check car top encoder alignment.
149	DPP count off more than 2 ft passing door zone, emergency slowdown executed. Check car top encoder alignment.
150	DZ relay failed on. Check DZ contacts.
151	CEN string did not drop when expected. Check connections to CEN.
152	Communication lost while car was moving.
153	Inspection switch failed on
154	No up or down slowdown limit opened when the position count expected a limit should have broken.
155	CPE battery error; no battery or battery charge fault.

