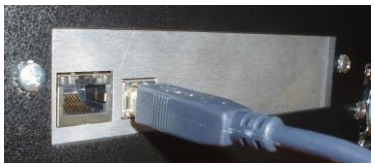
TMC/MMC Errors

Technical Support Bulletin

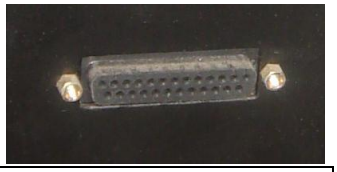
TMC/MMC error codes

Last Update 3-24-21

Abstract: The mmc software has the following error codes. You can recognize the mmc machines by looking at the communication port. If your port looks like this you have an mmc processor. And you can use this file.



If your communication port looks like this you have an i960 board processor and this file does not apply



Error description	Error code
no power	blank, all panel lights off, check cable from power switch to mmc board, fuses on power entry module (if present), wall plug has electricity.
no error	0
can't erase configuration area	1
can't write configuration area	2
impossible result knife rotate arc coordinate > 250ft accel time > 5 seconds	3
paper sensors must be on	4
sheet not loaded	5
media height sensor disabled	6
buffer too small or cutter busy	7
no processor	8.8.8.8 check connection front panel to mmc board, pcb dead, pcb not programmed.
waiting for first vector to complete	9
too much ambient light	10
graphics or escape buffer overflow	12
too many parameters in device control command	13
invalid character in escape command	14
escape command not implemented	15

device control parameter out of limits	16
Out of limit in y axis	19 – This can be caused by T5 trying to run a job with > 5” media.
dspic adc failed	20 - the motor current sensor on the dspic is not working. As this is a non-critical error this error just displays for 2 seconds and goes away.
x axis motor current above sensor capability.	21 - most likely cause short in cable or sensor failure
y axis motor current above sensor capability.	22 - most likely cause short in cable or sensor failure
z axis motor current above sensor capability.	23 - most likely cause short in cable or sensor failure
Joystick Disabled	24 – close joystick from remote panel to enable joystick.
no media covering media sensors	30
memory test during confidence test failed	31
reed switch sensor malfunction	32 – D024. Or pinch wheel under carriage too close to side plate. Move pinch wheel away from side plate. See options menu to disable the media height sensor.
bad front panel key received	36 – D031
bad calibration constants	37 – Must run diagnostic D008, then calibrate cutter.
hpgl compatible command parser error	40
MF index out of range	54
MF write to null address	55
rs232 device overrun (pic18 to pic32)	56
rs232 framing error (pic18 to pic32)	57
rs232 parity error (pic18 to pic32)	58
watchdog timeout	61 – Cutter software error or mmc PCB failure - D10. Check earth ground. Prevent electrostatic discharges.
x servo motor over current	62 – Normally caused by paper jam.
y servo motor over current	63 – Normally caused by paper jam.
x servo amplifier over temperature	64 - amplifier temperature exceeds 70°C or 158°F
y servo amplifier over temperature	65 - amplifier temperature exceeds 70°C or 158°F
voice coil current greater than max allowed	66 - the average current through voice coil exceeds allowed limits. Probably short in voice coil wiring.
excessive position error x axis	80 – Reference motor position too far from actual motor position. This can be caused by speed or acceleration too high, jerking material from a heavy roll, media jam, bad

	calibration constants, power surge, servo motor / encoder failure, mmc PCB failure
excessive position error y axis	81 – Reference motor position too far from actual motor position. This can be caused by speed or acceleration too high, jerking material from a heavy roll, media jam, bad calibration constants, power surge, servo motor / encoder failure, mmc PCB failure
unexpected interrupt on dspic	82 As this is a non-critical error this error just displays for 2 seconds and goes away.
excessive velocity x axis calculated fast path	83 software failure in fast path reference generator
excessive velocity y axis calculated fast path	84 software failure in fast path reference generator
excessive velocity x axis calculated reference	85 software failure in reference generator
excessive velocity y axis calculated reference	86 software failure in reference generator
excessive velocity x axis calculated end point	87 software failure in end point calculation
excessive velocity y axis calculated end point	88 software failure in end point calculation
Impossible Result (software error)	90-94 Acceleration too long or slew time < zero
unexpected IRQ trap	100
stand alone debugger	101
unexpected address exception (load or ifetch)	104
unexpected address exception (store)	105
unexpected bus error (ifetch)	106 - attempt to branch to non existent location
unexpected bus error (load/store)	107 - attempt to load or store to/from non existent location.
unexpected syscall	108
unexpected breakpoint	109
unexpected reserved instruction	110
unexpected coprocessor unusable	111
unexpected arithmetic overflow	112
unexpected trap possible divide by zero	113
unexpected implementation specific 1	116
unexpected CorExtend Unuseable	117
unexpected coprocessor 2	118
target missed origin	tar1 - realign red dot with target and press select or press load to cancel job
target missed skew	tar2 - realign red dot with target and press

	select or press load to cancel job
target missed scale	tar3 - realign red dot with target and press select or press load to cancel job
rotation of frame > than 1/2 target size	tar4 - realign red dot with target and press select or press load to cancel job
Web break detected. Go to supply mandrel menu -> web break and set thresholds to 90% and timeout to 5 seconds	E br
Loop	The output accumulator is EMPTY. Cannot continue without operator intervention.

List of actions performed during boot up and self test. A display hanging on one of these codes may give technician clue is to what is broken.

Boot "a" codes	Description of action occurring
a001	power up complete starting external ram test (boot flash)
a002	init routines complete (pic32 initialized to run) (boot flash)
a003	power up complete (branch to main successful, now starting pic32 initialization) (application)
a004	init routines complete (pic32 initialized to run) (application)
a005	wait for first set, of reference (sending position info to dspic)
a006	await echo response (sending echo command to dspic and waiting for response)
a007	wait for motors to stop moving (x/y motors now moving to home position)
a008	wait stop dac (home position found. stop motors)
a009	wait relax servo (send first vector to dspic to relax servo)
a010	Sending board rev to lan and usb processor
a011	wait for first front panel scan
a012	wait for eerom initialization
a013	wait for dfs init
a014	wait for no pounce mode
a015	wait for oigl_init
a016	wait for fpaninit
a017	wait for globufinit
a018	wait for initpen
a019	wait for initsvo
a020	wait for calibinit
a021	wait for set_not_ready
a022	wait for pid_init
a023	wait for reset servo bypass
a024	wait for enable servo interrupt
a025	wait for test diag mode
a026	wait for test frontpanel mode
a027	wait for initpos

a028	wait for load_settings
a029	wait for funca1
a030	eerominit starting
a031	eerominit starting pic18 init
a032	eeromSendFlash erase pic18 nvrom. Can't erase configuration record to pic18 computer.
a033	eeromSendFlash program pic18nvrom. . Can't send configuration record to pic18 computer.
a034	eerominit diag08, 43, 48
a035	waiting for pic18 or usb processor to come out of reset
a036	waiting for dspic to come out of reset
a037	no firmware in pic 32 flash
a038	front panel button pressed during power up indicating request new firmware
a039	programming dspic
a040	programming pic18
a041	programming usb
a042	programming pic32
a043	programming complete (starting user program)
a045	eerominit call eerominit_checksum
a046	programming motamp
a061	download of xmodem record did not start with soh character (retry)
a062	download of xmodem record number incorrect (retry)
a063	download of xmodem record checksum did not match (retry)
a064	download of xmodem record short bytes (retry)
a065	download of xmodem record duplicate record ignored (retry ack)
a066	download of xmodem record ok
a067	download of file complete
a068	external ram test complete
a069	send to motamp initial motor data
a070	tcpipinit
a071	init_i2c_slave_memory
a072	tickinit
a073	enable interrupts
a074	allowall / allowservoh
a075	initsvotimer
a076	acctzinit
a077	adcinit
a078	fogl_init
a079	fordynaminit
a080	globuf_alloc
a081	set_bala_init
a082	initcbuf
a083	mot dynam init
a084	comm dynamic init
a085	spi init

a086	open comm
a087	usb detach
a088	usb attach
a089	release dspic from reset

should display d301 when 1st vector completes