

Firmware Revision Info:

DMC-1700 Controller

New features for Rev 1.0r & 2.0r April 17, 2009:

- Added Stop Code 16 for Stepper Position Maintenance Mode
- Added QR command

New feature for Rev 1.2q & 2.2q December 22, 2006:

- No new features added

New feature for Rev 1.2p & 2.2p October 3, 2005 :

- Added Stepper Motor Position Maintenance Mode (<http://www.galilmc.com/support/appnotes/optima/note2445.pdf>)
- Added ECAM with two linear segments (<http://www.galilmc.com/support/appnotes/optima/note2444.pdf>)

New feature for Rev 1.2o & 2.2o July 6, 2004 :

- Improved BS command for AMP-540
- Added ELO support. TA3 and CN operand added for abort input application program disable
- Added Ramp to Gearing based on position. Added GD command for Gearing Distance and _GP returns lost distance
- Position Follower Mode added (PT command)

New feature for Rev 1.2n & 2.2n December 18, 2003:

- Added RS-1 functionality to temporarily set controller back to factory defaults without doing a Master Reset
- Added ~a to ~h operands for variable axis designators
- Added AG, AU, AW, BR, QH, and TA for AMP-19540
- Modified BS command for AMP-19540
- Added TK command to set peak motor torque
- Optimized cornering motion profile

- Added bus communication interrupt within IN command

New feature for Rev 1.2m & 2.2m December 23, 2002:

- Added LC command to set stepper in low current mode via ampen
- Added BK and SL commands to debug user application programs
- Added GA interrogation
- Added AUTOERR special label
- Added _RS operand
- Added double read of selective axis abort input
- Special bus interrupts added for new software drivers

New feature for Rev 1.2l & 2.2l April 9, 2002:

- OE and DV can now use "?"
- JP command will no longer inhibit Timer interrupt
- @AN function will no longer inhibit interrupts in fast firmware

New features for Rev 1.2k & 2.0k October 21, 2000:

- Operand _EO returns the state of echo-on
- Operand _BV returns the number of axes

New feature for Rev 1.2j & 2.0j June 15, 2000

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New feature for Rev 1.2i & 2.0i March 8, 2000

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New feature for Rev 1.2h & 2.0h December 8, 1999:

- Added Support for 4 Meg Flash Memory – firmware 2.0xxx only

New feature for Rev 1.2g October 21, 1999:

- ' can start a comment line in an application program
- BZ<time sets the time of the BZ timeout
- Option jumper now causes Motor Off on power up. Note: must have operating system rev 2.0 or higher

New feature for Rev 1.2f June 6, 1999:

- AD,AP,AV when not running won't generate error

New feature for Rev 1.2d February 8, 1999:

- Analog inputs can be recorded through record array with _AF
- Analog inputs added to the DMA record

New feature for Rev 1.2c December 28, 1998:

- A virtual axis, N, added for commands GA,SP,PR,JG,AC,DC,IT,ST,DP,RP,BG,EA,PA
- Analog inputs now reported as part of QZ
- Ability to abort motion on an individual axis with the fourth field of CN as a 1

New feature for Rev 1.2b November 23, 1998:

- Notch filter added, supporting commands NB,NF,NZ

New feature for Rev 1.2a September 1, 1998:

- Auxiliary encoders can be used as general inputs
- SQRT function resolution improved to give .0001 accuracy
- #CMDERR subroutine upgraded for multitasking:
 - Threads other than 0 are shut off if cause error
 - IN command on thread 0 can be interrupted
 - It is possible to restart threads using XQ _ED1,_ED2,1 to retry failed instruction and XQ _ED1,_ED3,1 to start next instruction.

- `_VM` returns instantaneous vector velocity
- Two coordinated masters S and T:
 - `BGST STST AMST`
 - `VA2000,4000 VDT=10000`
- `CN` can be interrogated `_CN0, _CN1, _CN2`
- ECAM slave tables and slave modulus can be changed if that axis isn't actively ECAMing.
- KI resolution extended to 1/128
- Fourth field of `II` is a mask where a 1 will make an input active high for interrupt. `_II1` returns mask.
- `_AVX` will return the distance traveled in a move.

New feature for Rev 1.2 April 1, 1998:

- Sinusoidal Commutation capability added
- `_VM` operand contains the instantaneous commanded vector speed

New feature for Rev 1.1c February 17, 1998:

- `FA` now has a resolution of .25

New feature for Rev 1.1a November 4, 1997:

- `CR` radius now has range of 16 million
- `_AB` returns abort input
- `CW,1` When output fifo full application program will not pause but data will be lost.
- List variable (LV), List Array (LA), List app program lables (LL)

New feature for Rev 1.1 September 16, 1997:

- 1748 support & updated DMA for 1748
- > speed in VP and LI
- IF ELSE ENDIF
- 8 threads in multitasking

- @asin @acos @tan @atan functions
- oc n,0 is single compare

New feature for Rev 1.0a July 3, 1997:

- 1780 support added
- #AUTO label added