OmniPulse ™ DDC Firmware Revision History

Version 3.19: (June 12, 2009)

Maintenance Release
- This release adds support for independent hoist and lower acceleration/deceleration times, stop speeds and a variable flux to field current curve.

- **Enhancements**
  - Added independent hoist and lower acceleration times
  - Added independent hoist and lower deceleration times
  - Added independent hoist and lower stop speeds
  - Added a variable flux to field current curve
  - Added support for a SPEED 5 programmable input
  - Increased the accuracy of the acceleration time
  - Improved shunt brake operation with the use of a power limit switch

Version 3.19 release C: (June 9, 2010)

Maintenance Release
- This release adds redundant parameter storage in non-volatile memory, CRC protection on both parameter sets, and CUV parameter write protection.

- **Enhancements**
  - Added parameter B03 to identify subversion releases (this is subversion C)

Upgrade Notes
- When upgrading control firmware or initializing a control board to a new hardware configuration a Change of Settings (CRC) will be displayed on the drive to notify the user parameters are not programmed.
  To eliminate the CRC fault, modify at least one parameter and reset or

power cycle the drive.

Version 3.20 release B: (March 6, 2012)

Maintenance Release
- This release adds various feature enhancements, most notably: torque following, individual plugging and motoring torques, and load float.

- **Enhancements**
  - Added a programmable armature open circuit detection threshold (AOC) and AOC detection timer. AOC detection can now be enabled in the traverse motion.
  - Resettable faults are now latched until the master switch is put in the neutral position
  - Added individual plugging torques to the traverse motion. The drive can now be programmed to plug with a torque   that is different than the motoring torque.
  - Added an Armature Voltage Feedback based Load Float feature.
  - Added a torque following feature which required the analog input and output bias ranges to be increased
  - The drive no longer needs to be reset after changing a 3-point flux curve parameter.
  - Added a brake stand programmable input function to disable motoring torque when a traverse foot brake is applied.
  - Corrected the default setting for hoist AOC level.
  - Allowed UV faults to be cleared during Initialization.

Upgrade Notes
- When upgrading control firmware or initializing a control board to a new hardware configuration a Change of Settings (CRC) will be displayed on the drive to notify the user parameters are not programmed.
  To eliminate the CRC fault, modify at least one parameter and reset or power cycle the drive.

Version 3.20 release C: (August 23, 2012)

Maintenance Release
- This release changes fault clearing and prevents the AOC timer from running if disabled

- o **Enhancements**
  - o Added condition that would prevent certain faults to clear automatically without removing a run command
  - o If D18 is disabled, the AOC detection timer will not execute.

Version 3.20 release D: (September 7, 2012)

Maintenance Release
- This release prevents nuisance AOC faults in the hoist direction which was caused by the 3.20C updates.

Version 3.21 release A: (October 2013)

Maintenance Release
- This release changes functionality of a few existing fault clearing sequences.

- o **Enhancements**
  - o Added Reset Attempts (D30) to be used in junction with the new Reset Flt Sel (D31) to select which faults can be automatically cleared and how many clear attempts are allowed.
  - o Prevent CRC fault from coming up when C07 is set to Store User
  - o Added Limit Switch Level (B09) monitoring and Limit Switch Detection Gain (D24).
  - o Added Brake Release Time (E05) to allow a delay between the run command and the brake releasing.

Version 3.21 release B: (June 2014)

Maintenance Release
- This release affects the drive initialize state.

- o **Enhancements**
  - o UV1 warnings now require multiple scans to clear during drive initialization.

Version 3.22 release A: (May 2015)

Maintenance Release
- This release affects the drive initialize state.

- o **Enhancements**

  - o Added MS Fault Time (D25) to fault the drive when two directional inputs are on simultaneously for this time.

- Added Slowdown Torque (F28) to be used when Slowdown is programmed into (G11) or (G25) and specifies the torque reference that will slow down the motor to first speed.
- Added Travel Limit Torque (F29) to be used when Travel Limit is programmed into (G11) or (G25) and specifies the torque reference that will stop the motor.
- Added a Travel Limit option to programmable inputs G11 and G25