Liberty (previous Lexium) MDrive Motion Control firmware change summaries

1. open-loop or closed-loop incremental encoder:

Upgrading Motion Control firmware to version 6.016 requires upgrading Ethernet firmware to version 2.4.0.8 for closed/open loop ethernet products using version 1.1.0.0 of the LMD Software Suite.

Changes Ver. 6.015 to 6.016
- Updated copywrite information to reflect brand transition

Changes Ver. 6.014 to 6.015
- Correct bug that impacted error stack reporting.
- Correct bug that impacted deceleration ramp when software limit is active.
- Correct bug that impacts deceleration ramp when relative move of zero is executed.

Changes Ver. 6.013 to 6.014
- Correct bug that caused CW to be overwritten by ST.
- Correct bug that caused motor to creep at a speed less than or equal to VI on soft limit trips.

Changes Ver. 6.010 to 6.013
- Added % torque to the reading of TQ
- Added turning off the drive enable input upon loss of +V.
- Added a 250 mS delay before re-enabling drive following power loss if DE=1.
- Fixed bug when saving options.

Changes Ver. 6.008 to 6.010
- Added updating internal Accel/ Decel tables when changing A or D and EE=1.
- Fixed code to keep 01 and 02 from pulsing on Ctrl-C (reset) or Power On.

Changes Ver. 6.007 to 6.008
- Fixed List to support VA xx = y. (missing equal sign).
- Changed AV to be able to be read all of the time. Compensated value for when EE=0.
- Added new mnemonic, RP Referenced Position. Indicates position reference (P set to a value).
- Fixed BL to display and save BL properly, depending on the state of EE flag.
- Modified conversion of Backlash when printing BL when EE=1 .

Changes Ver. 6.006 to 6.007
- Corrected an issue occurring when SL V1 then SL V2; when V2 > V1.
- Corrected an issue occurring with MA / SL when AS=0.
- Corrected an issue occurring during a Move on Move,, Slew on Slew or Slew on Move.
- Corrected an issue with the VC flag during velocity change.
- Corrected an issue occurring when trying to indirectly set an array with via pointer greater than the array size.
- Corrected an issue impacting detection of invalid array pointers.
- Updated Copyright year to 2017
- Added a test to prevent sending MA <position> multiple times while still moving to the previous commanded position,
- Corrected an issue regarding the outputting of Encoder on O1 and O2

2. closed-loop absolute encoder:

Upgrading Motion Control firmware to version 7.007 requires upgrading Ethernet firmware to version 2.4.0.8 for absolute-encoder ethernet products using version 1.1.0.0 of the LMD Software Suite.

Changes Ver. 7.006 to 7.007
- Updated copywrite information to reflect brand transition

Changes Ver. 7.005 to 7.006
- Correct bug impacting creep condition when soft limit trips.
- Correct bug that resets the encoder counter when error 122 was asserted with external battery connected.
- Correct bug impacting internal charging algorithm.

Changes Ver. 7.004 to 7.005
- Revised external battery back up algorithm.
- Added error 127 to inform user of low external battery voltage level.
- Resolved communication issue when unit enters state of deep discharge.
- Revised charging algorithm to prevent damage to Absolute Encoder circuitry.
- Added turning off the drive enable input upon loss of +V.
- Added a 250 mS delay before re-enabling drive following power loss if DE=1.

Source: https://novantaims.com/dloads/firmware/