

Jetter

**Technical Information
Version Update**

June 15, 2005

**JX6-CON1 / JX6-CON+ Modifications
from Version 3.001 to Version 3.033**

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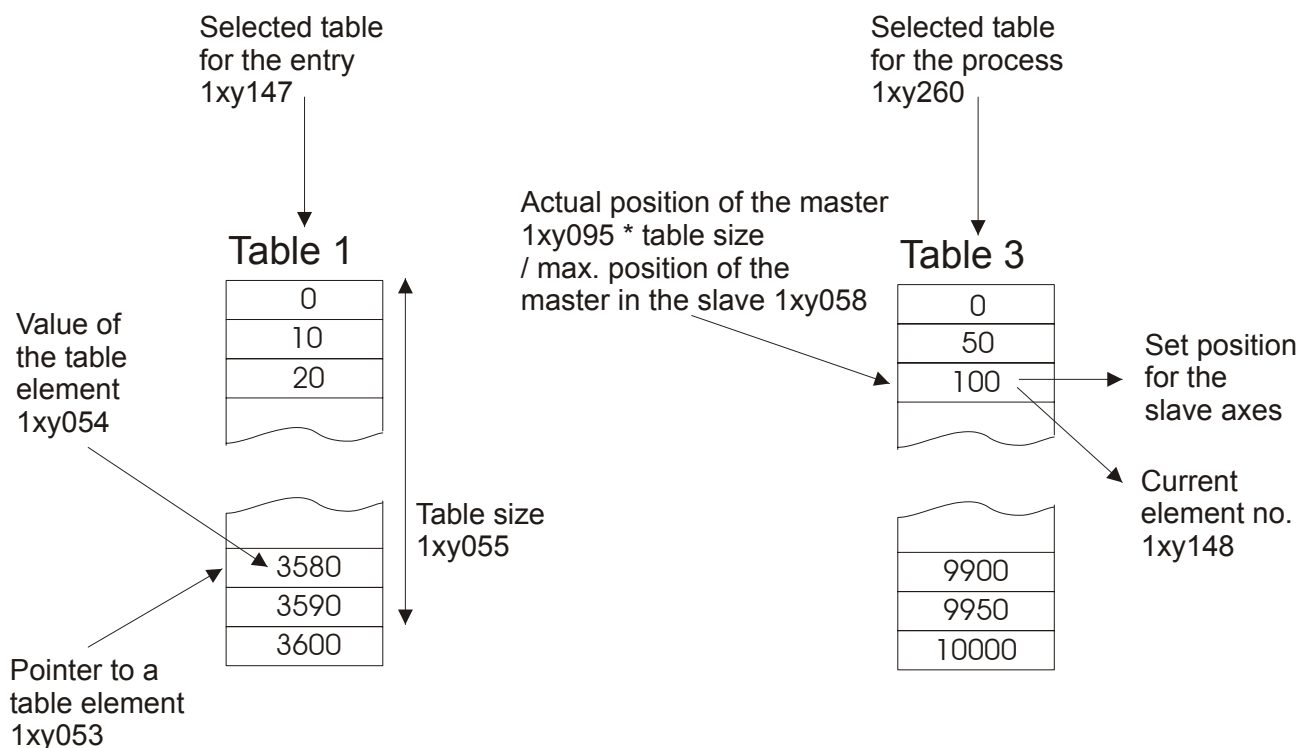
The numbers in parenthesis indicate the version numbers.

1 Modifications / New Functions

1.1 Axis Control

- (3.004) Starting from this version, the tables can be entered and processed separately. This means that it is possible to enter another table while a table is being processed. The new register 1xy260 serves to select the table for the process.

The following diagram illustrates the entry and process of various tables:



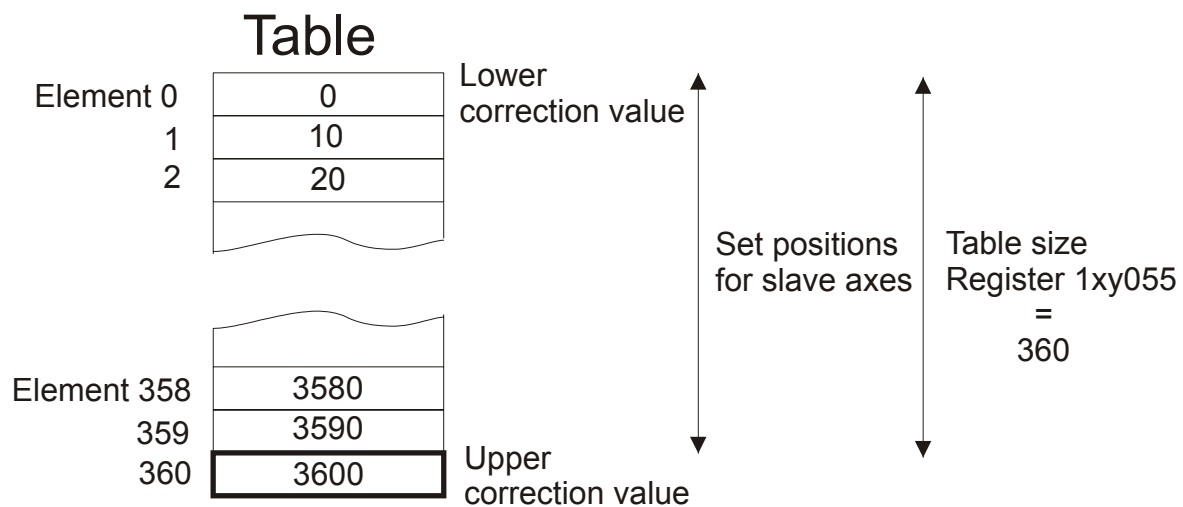
As in previous versions, different table sizes are allowed. As long as register 1xy260 is not written, register 1xy147 is used as selected table for the process.

- (3.010) The actual correction of the print mark function will be displayed in register 1xy261.
- (3.016) From this version onwards, the revised board DELREGA3 can be applied.
- (3.028) The function of version 3.004 referring to entering values into a table has been expanded in such a way that the values can be entered according to the axis they refer to.

2 Bug Fix

2.1 Axis Control

- (3.001) Using the acceleration limitation (register 60) with the follower only worked in one direction.
- (3.002) When recording the actual position in JetSym or Sympas oscilloscope mode, the values might have been incorrect.
- (3.003) Starting from version 2.900, an error might occur when creating a table if a table was written before using a too extensive table pointer.
- (3.004) Starting from version 2.900, the correction value during table mode overflow applied to the last table element. Starting from this version, the correction value must be entered again as additional element:



The correction value in case of table overflow is calculated as follows:

Correction value

= Value of the table element (register 1xy055) – value of the table element (0)
 = 3600 increments – 0 increments = 3600 increments

- (3.004) The function for shifting a table slave to the master (starting from version 2.907) via register 1xy248 did not work properly.
- (3.004) Due to the intermediate interpolation in table mode (starting from version 2.900) position jumps in the slaves occurred if the values of the table elements differed significantly. After having corrected this error, it is now possible to carry out the overflow of endless axes exactly at the value defined in register 1xy058.
- (3.005) Starting from version 2.7xx, analog activating/deactivating would not function any more.
- (3.005) If a JX6-SB belonging to a JX6-CON-Move had been plugged into a JX6-CON+ , start-up of the operating system would not be possible any more.

- (3.005) When the table mode had been activated by issuing command 46, the actual master position (register 95) would be calculated wrongly when master offset register 248 was applied; this could lead to a tracking error.
- (3006) Recognition of intelligent module-bus modules would not function correctly in module position 2.
- (3.006, 3.007) The special mode "Winding with Linear Interpolation" had not been functioning any more as of version 2.753. Starting from this version, command 153 instead of command 25 must be given in order to activate the special mode.
- (3.007) During quick changes of direction (automatic reference run), there could occur minor jumps (300 increments) of the virtual axis.
- (3.009, 3.010, 3.011, 3.012, 3.014, 3.017, 3.019, 3.020) Various bugfixes regarding interpolation with supplements:
 - Speed correction for linear interpolation with various encoder resolutions (command 150) did not function when the calculation was being carried out during a circular interpolation.
 - If certain sections of interpolation are so short that, at the actually driven speed, the deceleration ramp will already start at the beginning of the interpolation section, the deceleration ramp must not be programmed before the last section of interpolation. For the other sections, a very short deceleration ramp must be programmed.
- (3.015, 3.016) Starting from version 2.900, a special function for the winding mode didn't work.
- (3.016) Upload of an SSI encoder at the third axis would not work.
- (3.019) When a JetControl647 was being used and the "AXARR" instruction had been given, JX6-CON would not carry out the instruction in absolute mode.
- (3.024) If JX6-DIMA3 is used, the current setpoint will be set to zero by definition, if the axis has not been released. This way, the DIMA3 output stage will not be caused to report a controller error.
- (3.025) Winding mode by means of JX6-SV1: If the delay increments were applied at high speed (register 88), the exact final winding position would not be reached.
- (3.026) Table mode: When a table was used without applying a position correction (by means of command 54), and when the overflow value after table end had not been programmed, the calculation of the speed pre-control at the end of the table would not be correct.
- (3.026) When an axis was not used during an interpolation, and if a speed that was below a certain speed value was modified, the speed value would suddenly jump after having been zero. Starting from the speed value the device had jumped to, it would accelerate to the new speed value by the set acceleration ramp.
- (3.026) Print mark mode by means of JX6-SV1: Starting from the moment of recognizing a print mark, calculation of the actual speed would be terminated. As of this version, calculation will be re-activated, when the print-mark mode has been left by means of command 27.
- (3.027) Table mode: With the version 3.026 it could happen a short tracking error, if the table was switched to an other table while the table slave was moving. This error happened only if the new table number was lower.
- (3.029) Regarding the new layout of the LEDs, the way of handling the channel readout (Register 1x1023 = 1) would not be correct: all red LEDs would be lit.

- (3.030) If a follower control was deactivated exactly at a master overflow, register 95 would not be handled correctly at restart, which would lead to a tracking error of the slave axis.
- (3.031) Error correction after a 24-Bit overflow, if a virtual master and register 231 have been set, and if command 3 has been issued.
- (3.032) The change of version 3.028 referring to entering values into a table while the table is being processed at the same time (register 147 / 260) did not function properly.
- (3.033) Since the version 3.031 the operating system sometimes didn't start, when the sub-module JX6-DIMA3 was used.

2.2 Processing analog values

- (3.012) JX6-AD8: For analog input voltages or currents that were significantly higher than the specification, the input value occasionally exceeded the limit of +/-15 Bit. This way, a value opposite to the specified value was displayed.