



JetMove D203
Version Update
from V. 2.09.0.00 to V. 2.10.0.00



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1 Introduction

Overview of Version Updates			
Version	Function	Added	Fixed
V 2.08.0.00	Referencing on the fly		✓
	R196 linear / rotatory transmission		✓
	Jump after change of encoder type		✓
	Current range monitoring		✓
V 2.09.0.00	Operation at JC647-MC	✓	
V 2.10.0.00	Osci: Triggering to float-register	✓	
	Trigger input	✓	
	Torque termination		✓
	Position capture		✓
	Hiperface re-initializing at MC		✓
	Commutation detection		✓
	Ref-positions with decimal places		✓
	Referencing of gantry axes		✓
	Negative master axis difference in table mode		✓
	Referencing to Ref switch, one-phase		✓
	Referencing to zero pulse		✓
	Commands given to various axes		✓
	Current reduction		✓

2 Enhancements

2.1 Osci: Triggering to Float-Register

Up to now, triggering osci function has not been possible in case of the signal to be triggered being a float value.

As of version 2.09.0.02, the trigger function can also be applied if float registers are used.

2.2 Trigger Input

As of version V. 2.09.0.02, the function "Referencing on the Fly" can be made use of. This function has got an accuracy of 100 ns.

As of this version, the dead-time at the trigger input can be compensated. For this, please see the following register:

Register 527: Dead Time Correction	
Function	Description
Read / Write	Dead time correction
Type / Unit	Float / [ms]
Value Range	0.0 ms – 5.0 ms
Value After Reset	0.4 ms

3 Bugfix

3.1 Torque Termination

Deactivating the torque termination by command 29 would not function properly any more. Under a fault condition, the axis could not be positioned any more.

As of version 2.09.0.02, torque termination is deactivated properly.

3.2 Position Capture

All results of the position capture used to be written to the previous register 187.

As of version 2.09.0.02, the results are correctly written to registers 521 through 524.

3.3 Hiperface Re-Initializing at MC

If up to now, in a JM-D203 at an external motion control re-initializing of any Hiperface encoder is triggered by writing to register R577, the busy flag is set. This condition will be kept up.

This problem has been solved as of version 2.09.0.02.

3.4 Commutation Detection

After measuring the commutation offset, only values in the range of +/- 180° can occur as of version 2.09.0.02.

3.5 Ref-Positions with Decimal Places

Up to now, it has not been possible to set values with decimal places as reference positions for modulo axes. At setting 10.5 °, the system would set the reference position to 10.0 °.

This problem has been solved as of version 2.09.0.02.

3.6 Referencing of Gantry Axes

As of version 2.06.0.01, referencing of MC gantry axes would be terminated by the error message 5800, respectively 6800, "Gantry: Synchronous motion tolerance has been exceeded".

This problem has been solved as of version 2.09.0.02.

3.7 Negative Master Axis Difference in Table Mode

Up to now, starting table processing by a negative master axis difference could lead to a breakdown of the communication with JetMove. A negative master axis difference always results from the value of the final master axis position being smaller than, or equal to, the starting position of the master axis.

This problem has been solved as of version 2.09.0.02.

3.8 Referencing to Ref Switch, One-Phase

For checking the maximum distance, register R164 "Max. Distance, Switch Search" is queried, although here, as well as in the MC, register R167 "Max. Distance, Reference Search" should be used.

This problem has been solved as of version 2.09.0.02.

3.9 Referencing to Zero Pulse

As of version 1.00, referencing to zero pulse without a reference switch would not be terminated, unless the reference switch was activated. This means that referencing would be processed as if referencing to K0 with reference switch had been selected.

This problem has been solved as of version 2.09.0.02.

3.10 Commands Given to Various Axes

As of version 1.00, a command would occasionally not be executed correctly. If both axes got differing commands within 2 ms, the latter of the commands given would be carried out by both axes. Im Fehlerfall blieb allerdings auch das Busy-Bit (Register 1x100, Bit 13) so lange stehen, bis noch einmal das Kommando gegeben wurde. The error could occur at the following commands:

Command	Command	Command
1 cn_Cmd_Enable	2 cn_Cmd_Disable	3 cn_Cmd_SetReference
4 cn_Cmd_ResetMC	5 cn_Cmd_StopMax	6 cn_Cmd_StopUser
7 cn_Cmd_Quick_Stop	9 cn_Cmd_SearchRef	10 cn_Cmd_StartPosAbs
11 cn_Cmd_StartPosTime	12 cn_Cmd_ChangePos	13 cn_Cmd_ChangeVelo
15 cn_Cmd_ChangeAccel	16 cn_Cmd_ChangeDecel	20 cn_Cmd_StartPosRel
22 cn_Cmd_ChangePosRel	31 cn_Cmd_SearchCommu-tationOffset	
44 cn_Cmd_SlaveGearStart	45 cn_Cmd_SlaveStop	46 cn_Cmd_SlaveCamStart
56 cn_Cmd_StartEndless	57 cn_Cmd_ReverseEndless	

This problem has been solved as of version 2.09.0.02.

3.11 Current Reduction

As of version 2.08.0.00, current reduction for stepper motors would not function properly any more.

If after reducing the motor current a switchover to the normal operating current was made, the reduced set value of the current would remain active.

This problem has been solved as of version 2.09.0.03.