

Application note No. AP 2003/50-1e

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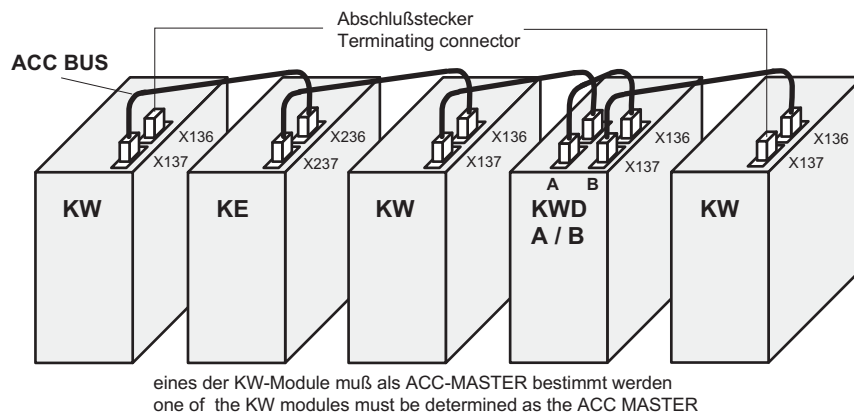
KE/KW Drive System

Undependant KW Modules with Setpoint through Analog Inputs $\pm 10V$: ACC-BUS for Internal Synchronization

In such a drive configuration a beat frequency between the drives can arise due to quartz crystal tolerances. This can lead to malfunctions in the internal field of A/D conversion. It is indicated by cyclic noise and vibrations in the motor, caused by periodic oscillations of the motor current.

Remedy:

Synchronization of the KW modules via the ACC BUS with active synchronization clock. For this the KW modules must be linked together through the ACC BUS (connectors X136 and X137 on the KW modules, X236 and X237 on the KE module) by means of the ACC BUS cables with terminating connectors at the beginning and the end of the ACC BUS



Parameter setting:

By appropriate setting of the associated parameters by the customer one of the KW modules must be declared as the ACC BUS MASTER.

The remaining KW modules are designated as SLAVES.

An ACC BUS station address has to be assigned to each KW module („1“ for the MASTER, „2“ ... maximum „32“ for the SLAVES).

No parameter entry is required for the KE module.

For parameter setting the control panel KU-BF1 must be used. It is connected to the serial interface X135 on the KW controller card KW-R03 of the associated KW module.

Subsequently listed parameters must be set in the KW modules:

	MASTER KW Module:	SLAVE KW Modules:
BUS Station Address	ID 34023: 1 (hex)	2 ... max. 32 (hex)
BUS Mode	ID 34025: 2 (hex) (Select panel menu item “ACC ADDRESSING”, then enter)	1 (hex)
BUS Mode Attribute	ID 34026: 8 (hex) (For SYNC clock output)	6 (hex) (SYNC clock reception)

Data entry via control panel KU-BF1 for the MASTER and all SLAVE modules:

Start menu :

Ready	ADR: 1	F1
KW 304	0341	

ACC BUS Station address
KW software version

Main menu :

DIAGNOSIS START - UP	SP
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ACC ADDRESSING PARAMETERS	SP
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ID 1 NC cycle time

3^P, 4^D, 0^{*}, 2^R, 6^F,

- 0000h BUS mode attrib.

DIAGNOSIS START - UP	SP
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ACC ADDRESSING PARAMETERS	F2
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PARAMETER GROUPS ACC ADDRESSING	SP
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Add: _1 Master: 1 ACC Addressing

Power off / on

Change ID34026 BUS Mode attribute:

MASTER:

8 ^B		F1
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for all SLAVES:

6 ^F		F1
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MASTER:

1 [*]		
1 [*]		

SLAVE (e. g. No. 2, ...):

2 ^R		
0 [*]		

Unplug control panel and plug-in at the next KW module.

After parameter setting on all KW modules: POWER (24V supply voltage)
OFF and ON again after approx.10s.

Parameter setting on the KW modules also is simplified if the ACC BUS is used.

With AIPEX (the AMK parameter setting software) the parameters for all KW modules now can be set via the MASTER KW module.