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# Updating software for AK2 controllers

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#### Introduction

This document describes the procedure for updating of software in an AK2 controller.

- The software number is indicated by three digits e.g. 1.02.
- Changes of the last digit reflect small changes of the software. Here it would be advantageous to save the settings in the controller and again transfer them to the controller with the "Backup" and "Restore" functions.
- Changes of the second-last digit reflect major changes that demand a total resetting of the controller.
- Changes of the first digit are normally not relevant.

There are two programmes for updating software. Which of the two programmes to be used for the current controller is determined on the next page.

#### Instruction in how to use the programming tool:

- 1. Items needed
  - Before starting the flash programming of the AK2 controller the following items are needed:
  - A PC with an available COM port
  - A PC to AK2 cable code. no. 080Z0262
  - The AK2\_SAUT" programme
  - The AKARM9App-programme (for System Manager)
  - The latest new software for the controller, e.g. "080Z0121-serial-x\_xx.a37" for a case controller and System Manager (order number and x\_xx = software number)
  - "080Z8511\_x\_xx.tgz" for a System Manager medio 2010 (order number and x\_xx = software number)
  - For a "Back-up" the software "Service tool AK-ST 500" will also be required.
- 2. Connect the AK2 cable between the COM port of the PC and the service tool plug on the AK2 controller



- 3. Check which software is in the current controller. Start "Service Tool AK-ST 500".
- I1:001 AK-SM720
   Image: Constraint of the second s



Information on the software version is found via the access picture, and by proceeding to the right-most picture. Press the +/- key to get there.

Continue to the next page:



4. You will see one of the following pictures: Note the difference in **the line** "Basic SW version" Is the line there? Are there lines instead of numbers? Is there a number?



This picture can be found in: Pack controllere Case controllere System Manager Protocol Interface m.m. This picture can be found in: System Manager Protocol Interface



This picture can be found in: System Manager Protocol Interface



You must use the programme: **AK2\_SAUT** and file type: **080Z8511-serial-x\_xx.a37** 

Continue to page 4.



You must use the programme: **AKARM9App** and file type: **080Z8511\_x\_xx.tgz** 

Continue to page 6.

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#### Instruction in how to use the AK2\_SAUT-programming tool:

1. Back-up

If the new software only contains changes of the third digit, the controller's settings can be saved on the PC. Start the Service tool programme and activate the "Back-up" function.

- 2. Unzip the program Extract the AK2\_SAUT.zip file to the desktop
- 3. Place the new software file on the desktop

E.g. "080Z01	21-serial-1	_03.a37′
080Z0121-seri AK2_SAUT.zip AK2_SAUT.ex	ial-1_03.a37 ] e	

7. Flash program - press "Update application"

#### 8. Flash program - select the new software

<u>E</u>  00020121 3	erial-1_03.a37	
File name:	08020121-serial-1_03.a37	▼ Open

Select the new file (eg."080Z0121-serial-1\_03.a37"), which was placed on the desktop. Press "Open".

4. Check the controller

Before starting the flash program, please check that the Status LED on the front of the controller is flashing. Or there is power on the controller.

#### 5. Start the flash programming

Now start the flash programming software "AK2\_SAUT.EXE"

#### 6. Flash program – select COM port

	Select COM Port	
	Select the task you wish to perform:	
_	Progress information	_
Version: 1.00		



9. Start programming:

1-1-1



The question box "Are you sure you want to update the application?" will come up – press "OK"

#### The flash programming of the AK2 controller will start

💐 AK2 Software Application Update Tool	<u>_   ×</u>
Select COM Port	
Select the task you wish to perform:	
Progress information	
Version: 1.00a	

The blue bar in the window will show the progress of the flash programming.

While programming the service pin LED on the front of the AKC controller will flash.



#### 10 REBOOT info:

Loading program file

Failed to restart the controller!

Perhaps there is no application running - will try to program

If the following information appears while programming, disconnect the controller's power source and reconnect it. The programme will then "fall in" and continue the programming once the controller sends a ready message. This takes approximately 1½ minute, once the power has been reconnected.

#### 11. End programming:

When the programming is finished the progress window will show the text:

Progress information		
Loading program file Preparing torgogram Time in: 08:53:56 Ready to program Programming Programming completed Time in: 08:57:54		

Wait until the Status LED on the front of the controller is flashing before going to the next point.

12. Clear memory

When the status LED is flashing - press the "Clear memory" button. This will clear the memory of the controller (clearing alarm history, log history and settings).

inc solution opti-		
	Select COM Port	
Se	Update Application	
Loading program file Preparing to program Time is: 08:5366 Ready to program Programming Programming completed Time is: 08:57:54	Progress information  I can be a series of the series of t	
Version: 1.00a		

Press "OK".

13. Controller reboot

After 30 sec. the controller is going to make a reboot – wait until the Status LED starts flashing again – now the flash programming has finished.

#### 14. Check software version of controller

Close down the flash programming software and start the service tool (remember to use the same COM port for the service tool software, so that you do not need to move the cable). Logon as "SUPV" and passcode "123". Press the left arrow on the temp. overview screen and you will navigate to the "controller identification" screen. Check the software version.



15. Restore

If you have saved the earlier settings via the Back-up function you can copy the settings back into the controller again. Use the Service tool function "Restore".

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#### Instruction in how to use the AKARM9App-programming tool:

#### 1. Back-up

If the new software only contains changes of the third digit, the controller's settings can be saved on the PC. Start the Service tool programme and activate the "Back-up" function.

#### 2. Unzip the program

Extract the **AkARM9ApplProgrammerSetupv1\_03.zip** file to the desktop

#### 3. Install the program



Start the program "Set up"

(The programme will be installed on "C": "Program files" / "ADAP-KOOL" / "AK ARM9 Application Programmer". There will be no shortcut.)

#### 7. Flash program – select COM port

ARM 9 Application	Programmer Version: 1.03 Build: 10.02.17	
		Danf
COM port:	COM1	
Application files	Ci\Decimpets and Cattings\E06007\Deckter\00070E11_0_1	Colum
Application file:	C:\Documents and Settings\F06887\Desktop\08028511_2_1	Select
Clear memory		
Programming prog	ress	
1		
		Class
	Start Programming	Close

Just select the COM port via the drop down box.

#### 4. Place the new software file on the desktop

E.g. "080Z8511\_2\_13.tgz"
© 080Z8511\_2\_13.tgz
© 080Z8511\_2\_13.tgz
© 080Z0153-serial-2\_00.a37
© 080Z0151-serial-2\_00.a37

#### 8. Flash program - select the new software

### 5. Check the controller

Before starting the flash program, please check that the Status LED on the front of the controller is flashing. Or there is power on the controller.

#### 6. Start the flash programming

Now start the flash programming software "AK ARM9 Application Programmer"



 File name:
 08028511\_2\_13.tgz

 File sof type:
 AK Application file: (\*.tgz)

Select the new file (eg."0080Z8511\_2\_13.tgz"), which was placed on the desktop. Press "Open".

## 9. Should the current settings in the AK2 controller be kept, or should they be erased and reinstalled later on?

Mark the "Clear memory" field if they should be erased.



#### 10. Start programming: Press "Start Programming"

#### The flash programming of the AK2 controller will start

ARM 9 Application P	rogrammer Version: 1.03 Build: 10.02.17	
		Danfoss
COM port:	COM1	
Application file:	C:\Documents and Settings\F06887\Desktop\job\2-Oplæg\0	Select
Clear memory		
Programming progra	ess	
2010-03-03 (0:42: 2010-03-03 (0:42: 2010-3-03 (0:42: >> >> >> >>	53: Exit the application. 36: Entering the programming mode	
	Stop Programming	Close

The bar in the window will show the progress of the flash programming.

While programming the service pin LED on the front of the AKC controller will flash.

#### 11 REBOOT info:



If the following information appears while programming, disconnect the controller's power source and reconnect it. The programme will then "fall in" and continue the programming once the controller sends a ready message. This takes approximately  $1\frac{1}{2}$  minute, once the power has been reconnected.

#### 12. End programming:

When the programming is finished the progress window will



Press "Close"

13. Controller reboot

After 1-2 minutes the controller is ready – wait until the Status LED starts flashing again – now the flash programming has finished. 14. Check software version of controller

Close down the flash programming software and start the service tool (remember to use the same COM port for the service tool software, so that you do not need to move the cable). Logon as "SUPV" and passcode "123". Press the left arrow on the temp. overview screen and you will navigate to the "controller identification" screen. Check the software version.



#### 15. Restore

If you have saved the earlier settings via the Back-up function you can copy the settings back into the controller again. Use the Service tool function "Restore".

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