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Your reference:

Your letter of:

My reference:

6.3-RB

My letter of:

To all users of the upgrade version of the
Beta Secondary Standard 2 (BSS 2)

Handled by:

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Information for the users of the upgrade version of the Beta Secondary Standard 2 (BSS 2)

Dear Sir or Madam,

Dear user of the upgrade version of the [Beta Secondary Standard 2 \(BSS 2\)](#) including an integrated PC (Raspberry Pi),

We would like to inform you that a new software version 5.1 for the BSS 2 is available for download. The new version contains the following improvements:

- The calibration procedure for the angle sensor was improved by requiring pre-set angles from $\pm 90^\circ$ in steps of 45° instead of only using $+90^\circ$ and -90°), see subsection 3.4.7 “Angle sensor” in the [Operation Manual](#).
- The headline of the protocol file was corrected by writing “mSv/h” instead of “mSv” for the photon contribution to the dose rate.

The new version can be downloaded and installed following the instructions below “*Installation of the updated software version to the BSS 2*” (two different options).

General information on the BSS 2 can be obtained from [PTB’s website](#).

Kind regards,

Dr. R. Behrens

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Installation of the updated software version to the BSS 2

Option 1: new SD card

Make copies of the following files on your BSS 2 system

- BetaSek2.ini (contains the calibration data of your individual sources),
- BetaFakt.ini (contains several “universal” correction factors) (optional) and
- the *.bta protocol files (contains the protocol data of your irradiations) (optional) from the (old) SD card in your BSS 2 Raspberry Pi.

Download the new IMAGE-file for the BSS 2 Raspberry Pi from PTB's website:

<https://box.ptb.de/getlink/fiManNizWyLAEGDundbcqbw5/>

- RaspberryPi_Image_Jessy_Feb24_Eng_klein (for English systems) or
 - RaspberryPi_Image_Jessy_Feb24_Ger_small (for German systems).
- Each of these files is about 5 GByte large!

Obtain a new SD card – minimum requirements:

Class 10, High Speed, 10 MB/s; better
UHS Class 3, UHS-I, UHS-II, 30 MB/s
32 GByte size

Copy the IMAGE-file to the new SD card. An instruction can be found here:

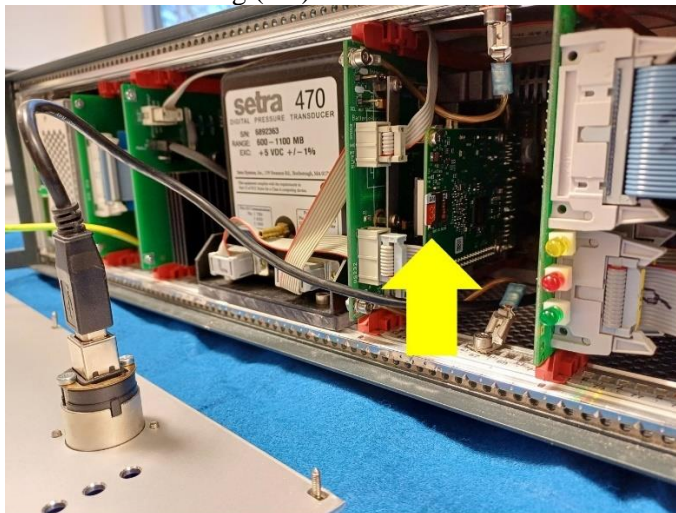
<https://www.hifiberry.com/docs/software/how-to-write-an-image-file-onto-a-sd-card/>

Replace the existing (old) SD card in the Raspberry Pi in the BSS 2 control unit with the new one as follows:

1. Open the control unit by removing the screws:



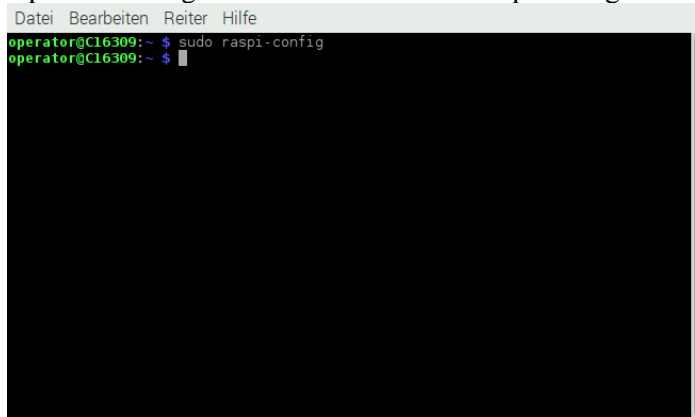
2. Remove the existing (old) SD card and insert the new one



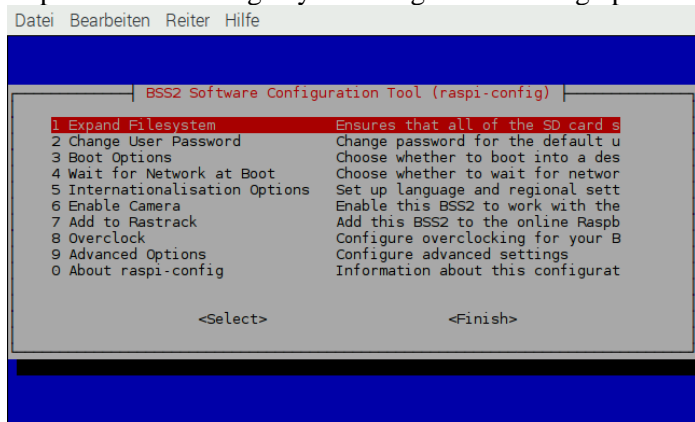
3. Close the control unit by re-putting the screws in place.

Expand the Image as follows:

1. Open the terminal, e.g. via (CTRL + ALT + T)
2. Open the configuration menu via “sudo raspi-config”



3. Expand the new image by choosing the following option 1:



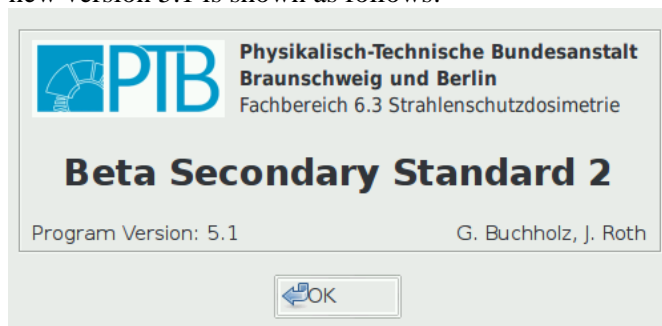
4. Reboot the system

Copy the file • BetaSek2.ini (containing your source data) on the system, i.e., the new SD card.

Import the file • BetaSek2.ini in the new system by using the BSS 2 software on the new SD card:

- start the BSS 2 software as usual and
- import the source data from your previously copies file BetaSek2.ini by the method described in subsection 3.4.4 “Source Data” of the [Operation Manual](#).

Finally, make sure the new version is used by starting the BSS 2 software then click “Info” and check that the new version 5.1 is shown as follows:



Installation of the updated software version to the BSS 2

Option 2: new software version

Preparation:

Download the new software version for the BSS 2 Raspberry Pi from PTB's website:

<https://box.ptb.de/getlink/fiManNizWyLAEGDundbcqbw5/>

- Beta3251
- Beta51.desktop

Copy the new file "Beta3251" to the BSS 2 Raspberry Pi system:

1. Open the terminal e.g. via (CTRL + ALT + T)
2. Open explorer with admin rights via "sudo pcmanfm"
3. Copy the *Beta3251* new version to */home/operator/BSS2/*
4. Right click on the program → "properties" → "permissions"
Change: *owner* to **operator**
group to **bss2**
the access control in the three queries to "all anyone"

Modify the Autostart/Autorun call to start the new software version:

1. Go to */home/operator/.config/lxsession/LXDE-pi/*
2. Open the file autostart with the editor "leafpad"
Change the following entry from:
`sudo /home/operator/BSS2/Beta3250` to `sudo /home/operator/BSS2/Beta3251`

Add the new program version to the Panel/Taskbar

1. Copy the file "Beta51.desktop" to */usr/share/applications/*
2. Open the Beta51.desktop file with an editor and change both names to the new Program version: */home/operator /BSS2/Beta3251*
In case of future updates, the name changes to a new version number (Beta3252 or so)
3. Right click on the Panel/Taskbar → Panel settings → Panel Applets
4. Double click on the Application Launch Bar
Go to "others"; Add the new program Beta3251
Remove the old program
5. Reboot the System

Finally, make sure the new version is used by starting the BSS 2 software then click "Info" and check that the new version 5.1 is shown as follows:

