PortableBios User's Manual

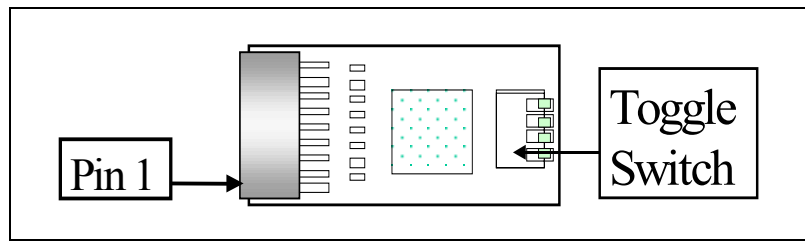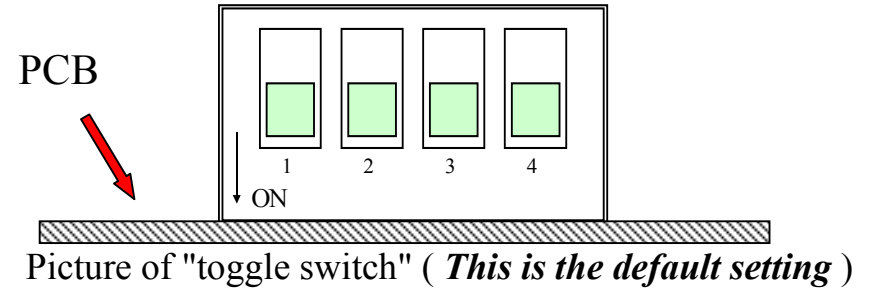## Why PortableBIOS™?

The system BIOS is an essential component to a mainboard because it contains important binary codes that will initialize the PC system. However, it can be easily damaged because of virus attack or improper operation. Whenever the system BIOS is corrupted or damaged, the PC system will be physically dead and you will be unable to start or use it any more. The PortableBIOS™ is designed to protect the system BIOS from all kind of damages including physically damaged to the onboard flash memory. Please refer to the following diagram for the outlook of PortableBIOS™

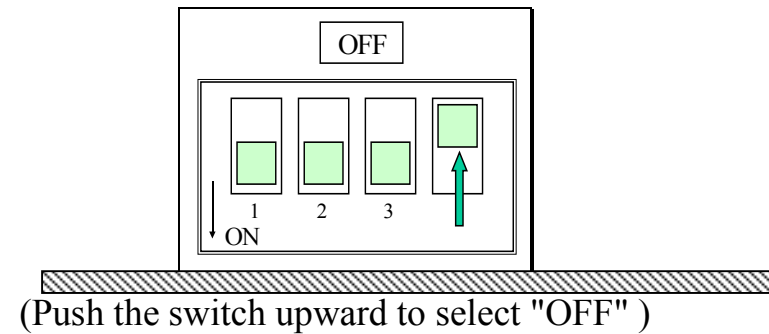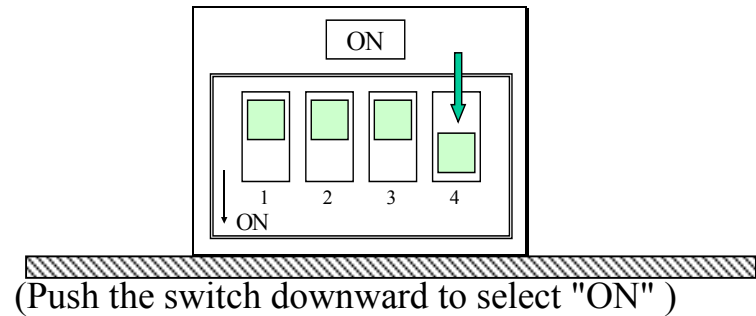Pin 1 → Toggle Switch

(Outlook of PortableBIOS™)

Page 1

There is a toggle switch designed on the PortableBIOS™ module which will allows you to select the operation mode for different

purpose, please refer to the following for the toggle switch settings:

PCB

Picture of "toggle switch" (*This is the default setting*)

Setting of toggle switch:

ON

(Push the switch downward to select "ON")

OFF

(Push the switch upward to select "OFF")

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Which mainboard can use the PortableBIOS™?

The PortableBIOS™ can not be used to every mainboard because the program built inside the PortableBIOS™ can be different. Wrong PortableBIOS™ will write wrong system BIOS to the mainboard

and make it failed to work. Before you can start the BIOS recovering, please refer to the information printed on the PortableBIOS™ to make sure the module is the correct one for the mainboard.

In order to differentiate the PortableBIOS™, a label with the model name is attached to the PortableBIOS™. Please refer to the following for the model name and its appropriate mainboard:

PB-810DN :   **for 810DMC/810DM/810DX**
PB-810DW: **for 810DME/810DTC/810DT+**
PB-815TW: **for 815TX/815TX5/815TM**

How to use PortableBIOS™ to recover the system BIOS?

The design of the PortableBIOS™ will allow you to rescue the system BIOS from data lost or faulty flash ROM. Since the user interface of the PortableBIOS™ is still under developing and intelligent mode is not available on this model. So the current version of the PortableBIOS™ is not for end users. It is provided for technician for the purpose of technical support and after service.

Whenever you received a returned mainboard which is failed to work and you are not sure what's happening to it. In this case, always have the PortableBIOS™ connected to the AIR Bus interface on the mainboard first:
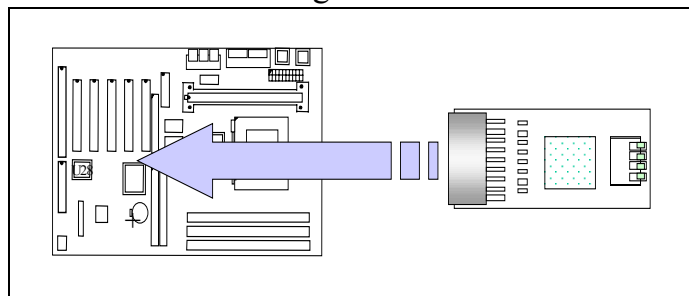
Connect the PortableBIOS™ to the AIR Bus

If you found the mainboard starts to work after you installed the PortableBIOS™, then the reason why the mainboard failed to work must be the system BIOS problem. There can be two possibilities which will cause the system BIOS failed to work:

First possibility: System BIOS is corrupted.

When the system BIOS is corrupted, then the important binary code in the flash memory is incomplete and it will be unable to start up the PC system, In this case, please follow the procedure below to recover the system BIOS:

Step 1: Turn the system power "OFF"

Step 2: Refer to the information printed on the PortableBIOS™ and have the correct one connected to the AIR bus interface on the mainboard. (choose the default setting on the PortableBIOS™)

Step 3: Turn on the system power.

Step 4: If the mainboard starts to work with the PortableBIOS™ installed, this indicates there was a problem with the system BIOS on the mainboard.

Step 5: Remove the PortableBIOS™ from the mainboard

Step 6: Get the binary file of the system BIOS (you may find the updated BIOS file from the web page all the time) and the system BIOS update program – AWDFLASH.EXE. Have the mainboard boot in the DOS environment and then refer to the following instruction to recover the system BIOS:

    C:> AWDFLASH XXXXXXXX.BIN
    (Note: XXXXXXXX.BIN is the file name of the BIOS code)

Step 7: When the BIOS update is completed, turn off the system power and then remove the PortableBIOS™ from the mainboard. Turn on the power again. If you found that the mainboard start to work, then the system BIOS is recovered.

Step 8: If you turn on the system power but the mainboard is still not working. Then the flash memory is faulty, please refer to the next procedure to recover the mainboard.

| **Second possibility: Onboard flash ROM is faulty.** |

When you have completed the BIOS update as mentioned above, but the mainboard still could not work when the PortableBIOS^{TM} is been removed. Then the flash ROM on the mainboard is faulty. In this case, update the system BIOS become the task of impossible.

Don't be upset, you can use the PortableBIOS^{TM} to make the mainboard alive again. Simply have the PortableBIOS^{TM} installed on the mainboard all the time and then it will replace the system BIOS automatically. Users may continue to use the PC system and need not to return the mainboard to the manufacturer for trouble shooting.

| **How to update the PortableBIOS^{TM}** |

When you find the BIOS version inside the PortableBIOS^{TM} is out of date and you want to have it get updated. Please refer to the following procedure to update the PortableBIOS^{TM}:

Step 1: Visit AZZA web page and down load the new BIOS code.

Step 2: Select the following jumper setting on the PortableBIOS^{TM} and then have it installed on the mainboard.
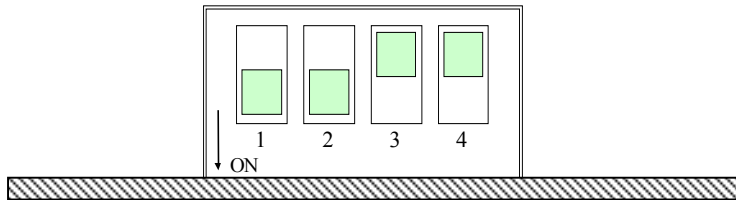
SW1	SW2	SW3	SW4
ON	ON	OFF	OFF

Step 3: Turn the system power "ON" and wait until the PC system gets ready under the DOS prompt (C:\).

Step 4: Use the following command to update the PortableBIOS^{TM}:

C:\AWDFLASH.EXE XXXXXXXX.BIN

Step 5: When the update procedure completed, turn off the system power and then remove the PortableBIOS^{TM} from the mainboard to complete the new BIOS code update.

Step 6: Return the toggle switch to the default setting so that you can use the PortableBIOS^{TM} to rescue the system BIOS afterward.