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# 1. Overview

## a. Introduction

The EVGA EVBot is a fun and useful tool for tweakers and overclockers to have fun tweaking their EVGA products for benchmarking World Records and overclocking fun.



It's use is very simple and straightforward much like your mobile hand-phone. The beauty of it is that you do not need any software nor does it eat any system resources.

#### **b.** Function Keys



OK: Enter

C: Cancel/Backspace

Up: Scroll Upwards/Increase one notch

Down: Scroll downwards/decrease one notch

1,2,3,4: Profile Hotkeys

Power Button: Press once to turn power off/on for EVBot, Hold down to enter Flash Mode (Explained in the Firmware Flashing section)

Reset Button: Press once to reset EVBot

#### c. Connections

First Hook up the EVGA EVBot Enabled products to their respective ports on the EVBot. As illustrated, MB Port is for connecting Motherboard, VGA1, VGA2, VGA3 is for connecting to 3 individual EVGA Video Cards.

You do not need to have all 4 items but any one of those. For example you can just hook up to an EVGA Motherboard if that is all you have that supports this feature. Or just a Video Card supporting this feature.

Connect the EVBot to the ports on the Motherboard or Video Card. Highlighted in Green is where it is located on below EVBot enabled models:



EVGA X58 Classified (E759, 760, 761, 769) Motherboard:



EVGA X58 Classified E762 Motherboard



EVGA P55 FTW E657



EVGA P55 FTW 200 E658



EVGA P55 Classified 200 E659



EVGA GTX285 Classified

You will see that the Port Connector is a 5 pin connector arranged in 2 rows, with 3 pins on 1 row and 2 pins on another. The Connector Cable has 5 holes with a 6<sup>th</sup> blocked so there will be no mistakes when connecting it.

# 2. Updating Firmware

When the System starts up, EVBot will light up and start to be operable. The Default Firmware on the EVBot when you receive it is for EVGA X58 Motherboards and Classified Video Cards. If you are using EVGA P55 Motherboards, please follow the next set of instructions to update the firmware for P55 Motherboards.

There are 2 ways to update firmware of EVBot, you can either do it in a DOS Environment or Windows Environment.

## a. Updating in DOS

- 1. Insert your EVBot CD into your ROM Drive and choose to boot up with the CD.
- 2. Once booted up in DOS, key in this command 'Flash'
- 3. Flash Tool will ask you to hold down the power button on your EVBot for 7 seconds to enter Flash Mode. Flash Tool will ask you if you want to flash the firmware for X58 or P55, key in '1' for X58 or '2' for P55.
- 4. Flash process will begin Do Not Switch off the power or Reset the PC During this time!
- 5. After the Flash is completed you will see this screen:
- 6. Unplug EVBot Connector and plug it back in and it's ready!

### **b.** Updating in Windows

You can update in Windows XP, Vista or 7, 32bit or 64bit Environment by following this set of instructions.

1. Insert your EVBot CD into your ROM Drive and choose to flash to P55 Firmware or back to X58 Firmware by clicking the relevant button.



- 2. Flash Tool will ask you to hold down the power button on your EVBot for 7 seconds to enter Flash Mode, then click OK to start Flashing.
- 3. Flash process will take several minutes, please be patient and do not turn off the PC or reset during this period!
- 4. EVbot Screen will be flashing it's blue light on and off during the flash process.



5. When Flash is done, Flash Tool will prompt you to unplug and replug EVBot and it is ready for use.

If some problem causes you to stop the flashing of firmware intermittently, unplug the EVBot connection, Hold down on Power button and don't let go and replug cable into EVBot, holding down on Power button at least 7 seconds till you see this:



EVBot is in Flash Mode again and you can reflash it by repeating the same method. As long as the Flash Tools can detect EVBot, then it can be reflashed again.

# 3. Using the EVBot

After the EVBot Greeting screen, press **OK** to enter main menu:



To Make sure EVBot controlling does not conflict with the BIOS, only start adjustments after the system is fully booted up.

Now, you can choose the device you wish to control first. If any of the devices in the list are not engaged, just ignore it and scroll to the device you have connected. Let's go into Motherboard Control first. Press **OK** on 'Motherboard'.



You will see Voltages, Clocks, Opt Booster. Let's click **OK** to enter the Voltages Menu.



Here, you will see all the voltage Controls over the Motherboard, like what you have in the BIOS. Scroll down and up to see all the options available.



To adjust the voltage very simply press **OK** at the voltage of choice. Let's use CPU PLL VCore as an example:



Once you enter into the voltage option, you will see the current voltage displayed. It is 1.80v in the example. To increase it press Up, to decrease it, press down.



Once you have decided the voltage you want to apply, press **OK** at this moment. In the above, my target voltage is 1.83v. You will see a confirmation response from EVBot, Apply? To confirm, press **OK** now.



You will see an OK! Response form EVBot once the voltage is actually applied. As you return to this voltage from henceforth, the CPU PLL VCore will show the current voltage, which is 1.83v.

Adjusting Clocks is as simple, simply press C to return to main menu, and go into Clocks menu:



Here, you see the clocks adjustments listed. Let's go into CPU Host Frequency.



Here you will see your current CPU Host Frequency, 181MHz in the example. Press Up or Down to increase or decrease Frequency respectively.



I want to go to 186 so I press **OK** after Uping to 186MHz. Again a confirmation is needed. Press **OK** to confirm or **C** to cancel.



Once the clock is applied, an OK! Response will come from EVBot. As you return to this menu from henceforth, the CPU Host Frequency will show the current clocks, which is 186MHz. This is very useful in maximizing Benchmark scores as you can vary the clockspeeds in the middle of a test.



Similarly for Clock Skew and others, adjust to preference.

Now let's go into Opt Booster. Opt Booster stands for optimistic booster. A CPU maxing out at 5.2GHz in a 3D Mark Run may usually be able to run 5.24GHz for short durations in between, so this Artificial Intelligence tries to max max your CPU.



There are 10 levels of preconfigured Optimistic Booster, of course Level 10 is the most optimistic setting. Let's enter Level 3 for an example:



Here the CPU Host Frequency will go up 1MHz per 4 seconds and go back down 1 MHz per 4 seconds. Press **OK** to apply.



Now it is operating Level 3 Opt Booster. At any point of time you wish to stop this, just press C to cancel.

There is also a Custom Level:



Upon Entering you will see that you have the power to control the frequency to go up and for how long (in terms of seconds) and to go down and for how long (in terms of seconds).

Press OK to change an item or the Up and Down to navigate around the setup.



So in the example above you see that I am boosting up Host Frequency by 4MHz and stay there for 2 seconds and going down 3 MHz and staying there for 3 seconds and repeating the action to and fro. It only starts when you press **OK** at Apply?

As EVBot Communicates via SMBUS, prolonged writing/reading function of the Opt Booster will occupy the SMBUS so try not to run OPT Booster when SMBUS is busy – such as at the very opening of 3dmarkxx.exe or the very opening of CPUZ to prevent SMBUS authority conflict.

Take Note that EVBot does not write the Motherboard settings permanently into your BIOS so at the next reboot, the settings of the BIOS will take over and the adjustments of EVBot will be gone. This is to protect some unsuitable settings during experimentation from being written into the BIOS. To get around this if this is wished, Load Profile will load the settings you have saved. (More on Load/Save Profile later)

So that is a clear illustration of how to operate EVBot to control your Motherboard. Let's take a look at VGAs.



In the example above, I want to control the Video Card connected to VGA 1 port. Make sure the drivers are installed and System is in the OS before adjustments to the Video Cards.



In the sub-menu, you will see 4 different Voltage Adjustments, VCore for the GPU Core, VPLL for the PLL Clock Generator on the GPU, VDD for GPU Memory and VDDQ for the GPU Memory.

To adjust any one of the voltages, press OK to enter into it.



In the example I want to adjust VPLL and upon entering, I see that the current voltage is 1.15v.



I press Up to scroll up to 1.27v and hit OK. A confirmation message pops up and I press OK again to confirm or C to cancel.



Once the Voltage is applied, OK! Message pops up. As you return to this menu from henceforth, VPLL will show the current VPLL, which is 1.27v. **The voltages are retained even with a reboot, until the next power down.** 

To save profiles and load them easily and quickly, press the Hotkey of your choice 1,2,3 or 4.

You will see this:



Press Save to save all the current settings of all devices plugged into your EVBot, up to one Motherboard and 3 Video Cards.

To bring forth a previously saved profile, press the hotkey you saved the profile in, and choose Load instead of Save. With 4 Hotkeys, you can save and load up to 4 different profiles.

# \*Make sure you use the firmware that is for your VGA/Motherboard, check the included CD for Firmware or from EVGA's Website\*

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