

Tutorial 1. FLASHING ALL SAMSUNG DRIVES

This Tutorial will guide you step by step to be able to Read and Flash any Samsung Drive MS25 or MS28, not matter what firmware currently has. This guide can also be followed to recover your drive from a brick (corrupted firmware).

Please **READ FIRST** the Setup Manual located on our Downloads Page:

<http://www.360lizard.com/website/downloads.php>

Its assumed you have already configured your PC with drivers and you know how to make a valid connection between Lizard and the PC.

Its assumed also you know how to disassemble and re-assemble your console.

Also some parts of this tutorial REQUIRE you have Lizard Updated to GECKO 1.02 or above, so its better go update it first.

Section 1. Unlocking the Drive

The first step to be able to read and write the firmware of Samsung drives is unlocking them, this term is also known like putting in “Vendor Mode”, its basically a mode of the drive which allows to read and flash the firmware contents. Also another thing to note on the Samsungs is that there are 2 types, the MS25 and the MS28, you should see the sticker on the drive to be sure what kind of drive you have



Due to the diverse types of firmware released for the Samsung (also known as Sammy) we have different ways to Unlock the Drives, there are ones easier than others, on this section of the tutorial we will cover the Software ways to Unlock the drive. Unfortunately also the latest versions of LT+ firmware lacks of software unlock methods so If you don't have success with software only then you would need to go to use the Hardware Unlock method

First we will give you a brief introduction of the different software ways present in Lizard under the Samsung Menu (Make sure you have your Lizard on GECKO 1.02 or above)

- **MTK with 0800 disc.** This Method works for all MS25 and MS28 if your drive has the Ixtreme 1.4 or above, basically you need to insert a DVD DUAL LAYER with a special data inside of it. (Details where to download it later). The Disc when its loaded takes care of unlocking the firmware from inside. If your Drive does not read Discs and you are just reading for replacing then could be better idea go with Hardware Unlock
- **MTK with HALF TRAY.** This method works only if your drive has MS25 Stock firmware or if it has Ixtreme 1.5 or above. What you need to do here is just start your drive with tray half-open (more details later) and then Lizard will be able to Unlock it. If your drive

don't eject the Tray and you are just reading for replacing it then could be better idea go direct with the Hardware Unlock

- **MTK Soft Unlock MS28.** This method works only for MS28 drives with Stock Firmware. Due to the nature of this method is not recommended you try it so many times, if you not sure if your drive is in Stock firmware (original) then its better try the past 2 methods or go direct with Hardware Unlock. This method works injecting a key on your drive that cause the drive unlocks itself. The reason most common for this method to fail is due to timing or not being Stock firmware.
- **Hardware Unlock.** This method is a hardware trick that allow to put the processor vulnerable to the MTK Intro command, if done properly is totally harmless to the drive and take just 2 extra minutes to do than the software unlock, the advantage is it works for 100% of the cases (if done properly of course). This Method can be used also to recover drives from Bad Flash (UNBRICK)

On the table below we have the most common firmware types, please note there are variations like the Xtreme firmware that are not in the table so its matter of give a try on some of the Software unlock options or go direct with Hardware Unlock.

Methods to Unlock				
Drive	MTK w 0800	MTK Half Tray	MTK Soft MS28	Hardware Unlock
MS25 Stock Fw	-	✓	-	✓
MS28 Stock Fw	-	-	✓	✓
MS25 with Ixtreme 1.4	✓	-	-	✓
MS28 with Ixtreme 1.4	✓	-	-	✓
MS25 with Ixtreme 1.5+	-	✓	-	✓
MS28 with Ixtreme 1.5+	-	✓	-	✓

Now we will go in detail with each of the Software Methods. If you are still unsure what method to try please try to follow them in the order we will put here and stop when you get your drive Unlocked. If no luck with Software Unlock please Read the Hardware Unlock Section.

MTK with HALF TRAY.

This is the easiest method to Test and just take a couple of seconds so its always worth to try this method first, it don't require your lens is in good shape, just require you are able to eject the tray somehow and start your drive with Tray Half Open.



*In order to keep this tutorial as clean as possible we have created **Appendix A** at the bottom of this document, please read it now so you can learn how to wire all (the lizard to your drive and the PC to your lizard) and have all ready to start. This tutorial will continue assuming that you have read the **Appendix A** and have followed the steps shown there.*

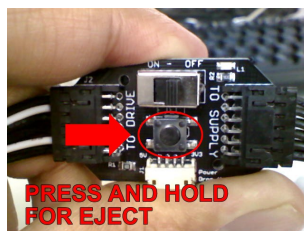
Step 1.- On Lizard Navigate to Samsung Menu, then enter there and navigate to the MTK with Half Tray option and select it.



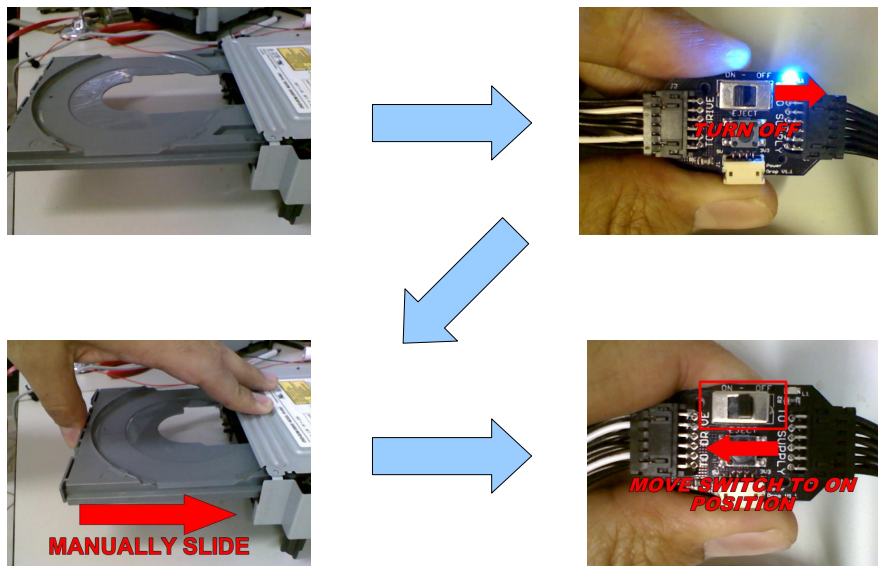
Step 2.- Lizard will ask you to Put the Drive in Half tray Mode



Step 3.- Please make your drive eject the tray, if you are using Power drop included in Lizard note you need to press and hold the eject button to eject the tray, if you release the button the tray will start closing.



Make the tray of your drive travel to half way on the open status, the easiest way to do this is just hold the eject button on the Power drop then being fully open just turn off the Power drop, then manually slide the tray to be half way open and then just turn it on again.



After you restarted your drive in Half tray just press OK on Lizard to continue next step.

Step 4.- Lizard will show the message “MTKIntro...” at this time is sending the MTK Intro multiple times to unlock the drive. You can note also a message on the bottom stating “Press UP to Cancel”, in a perfect situation the unlock takes just a couple of seconds, if you see is taking forever you can just Press UP button on lizard and hold it till you return to menu. Probably if you do that means the method don't work for you. It could be due to the fact the firmware has no support for Unlock with Half tray.



Step 5. If all goes smooth and the unlock is successful you should see a screen with the Vendor ID and Device ID displayed on the screen, thats the signal of you have successful unlocked your drive. You can continue now to next section where we will show you how to Read and Write.



If you got Error Screen then continue with other method.

MTK with 0800 Disc.

To use this method your drive must be on Ixtreme 1.4 or any firmware that support be unlocked by the 0800 disc. Also its required your drive lens is in good shape otherwise will not read the 0800 disc.



The 0800 disc is just a DUAL LAYER DVD disc with special data recorded into it. You can download the file with the ISO image from the following link.

http://360lizard.com/website/downloads/0800_disc.rar

alternatively you can download from here (also know as activate disc):

<http://360mods.net/index.php?name=Downloads&get=69>

Please note these images are compressed, don't burn it direct to your disc, make decompression of the files first and you will end with a file of exactly 259,648 KB, thats the ISO image that you need to burn onto DUAL LAYER disc.

Showing how to burn the DUAL LAYER disc is out of the scope of this tutorial we will just say that we recommend CLONE CD software from the company Slysoft to burn the disc, others can work too.



In order to keep this tutorial as clean as possible we have created Appendix **A** at the bottom of this document, please read it now so you can learn how to wire all (the lizard to your drive and the PC to your lizard) and have all ready to start. This tutorial will continue assuming that you have read the Appendix **A** and have followed the steps shown there.

Step 1.- On Lizard Navigate to Samsung Menu, then enter there and navigate to the MTK with 0800 Disc option and select it.



Step 2.- Lizard will ask you to Insert the 0800 disc to your drive, please do it and close the tray. Once you close the tray please click OK on Lizard to continue next step.

Note: To eject the DVD drive with the Powerdrop you need to keep pressed the EJECT button, and to close the tray just release that button.



Step 3.- A message "SPINNING DISK" will appear, this is just a timer to allow the drive load the disc and unlock the firm-guard protection. You don't need do anything but wait.



Step 4.- After few seconds Lizard will show the message "MTKIntro..." at this time is sending the MTK Intro multiple times to unlock the drive. You can note also a message on the bottom stating "Press UP to Cancel", in a perfect situation the unlock takes just a couple of seconds, if you see is taking forever you can just Press UP button on lizard and hold it till you return to menu. Probably if you do that means the method don't work for you. It could be due to the fact the firmware has no support for 0800 unlock or can be also the lens of the drive are dead or maybe you burn wrong the 0800 image.



Step 5. If all goes smooth and the unlock is successful you should see a screen with the Vendor ID and Device ID displayed on the screen, thats the signal of you have successful unlocked your drive. You can continue now to next section where we will show you how to Read and Write.



MTK Unlock for MS28.

This is also the easiest way if you are sure your drive has MS28 Stock firmware, it don't require your lens is in good shape. Please note this method actually writes a unlock key on the drive so if you don't have a MS28 don't try it, or if it fails for you then don't retry it many times and go better for the Hardware Unlock method below.

In order to keep this tutorial as clean as possible we have created Appendix **A** at the bottom of this document, please read it now so you can learn how to wire all (the lizard to your drive and the PC to your lizard) and have all ready to start. This tutorial will continue assuming that you have read the Appendix **A** and have followed the steps shown there.

Step 1.- On Lizard Navigate to Samsung Menu, then enter there and navigate to the MTK Unlock MS28 option and select it.



Step 2.- Lizard will ask you to Turn On the drive so please do it (if it was turned on already then just power cycle), and press OK on Lizard to continue



Step 3.- Lizard will start to show series of Messages about Unlocking stages, if passes all stages then the MTKIntro will succeed, otherwise you can get an error message. Please check both pictures so you can know what to expect.



In case you get any other Failure message is same situation, please check your wiring and if you think worth try again do it, otherwise go for Hardware Unlock which is lot easier.

Step 4. Lizard will show the message “MTKIntro...” and will start sending the MTK intro command to unlock the drive.



Step 5. If all goes smooth and the unlock is successful you should see a screen with the Vendor ID and Device ID displayed on the screen, thats the signal of you have successful unlocked your drive. You can continue now to next section where we will show you how to Read and Write.

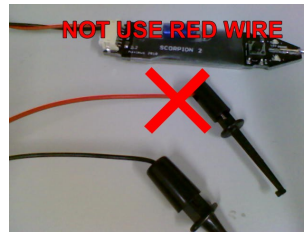


Hardware Unlock (with Scorpion 2)

The Hardware Unlock will take care of the nasty drives, and it seems to work 100% of the times if its done properly. It also can be used to UNBRICK Samsung drives that have been flashed with wrong data and cannot be recovered in other ways.

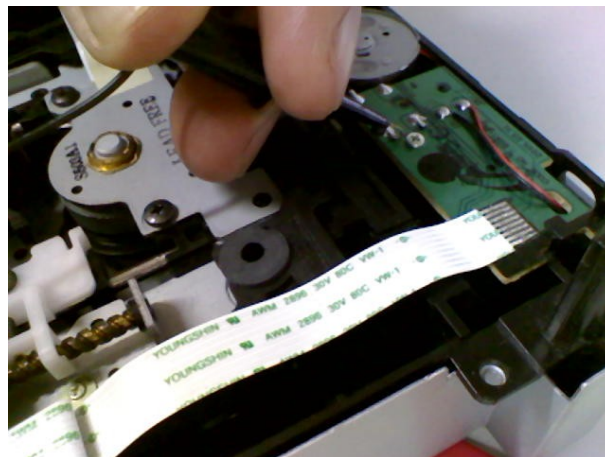
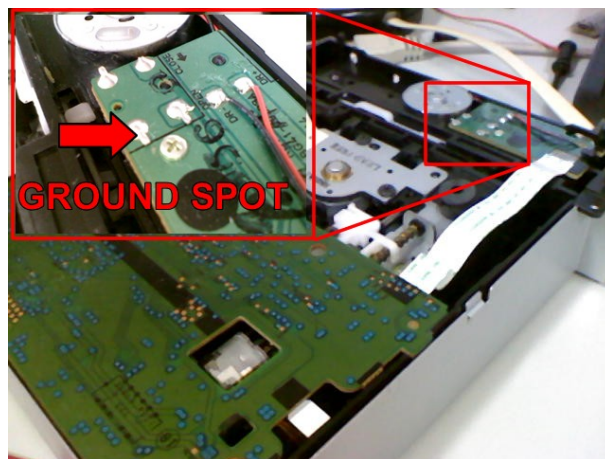
*Please Refer now to **Appendix B** where we show you how to get all connected and Ready for the Hardware Unlock. Continue reading this section AFTER you read and follow the **Appendix B** only.*

Also before continue we will show you how to connect the Scorpion 2 to the Samsung drive to allow the Hardware Unlock. For this job we will only require connect the BLACK wire grabber on the Scorpion 2. The red wire grabber IS NOT USED for this Unlock.



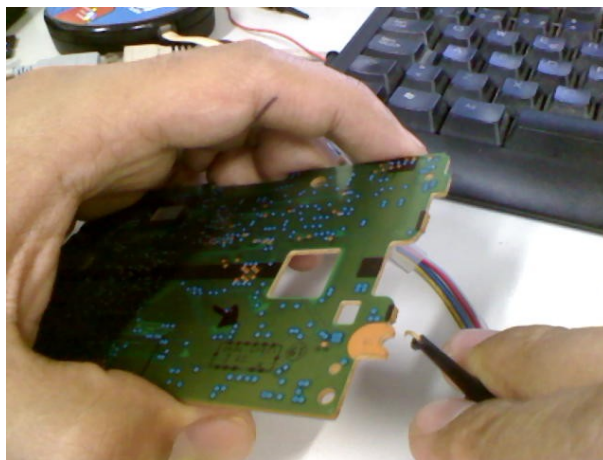
There are basically 2 ways to connect the Wire, it depends if you have your drive assembled with cover removed or if you have the board only.

If you have full drive with cover removed please check the following sequence of images to see how it should be connected.:





If you have the board only then it is better to connect the wire to work on the other side of the board, please follow the next images to see how to connect it.



Make sure the connection is STEADY before continue.

USE ONLY ONE OF THE SIDES OF THE BOARD YOU CHOOSE WICH ONE IS EASIER FOR YOU.

Now with all wired its time to do the Unlock, follow the next sequence:

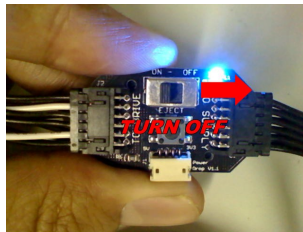
Step 1.- On Lizard Navigate to Samsung Menu, then enter there and navigate to the MTK Hardware Unlock with Scorpion. And and select it. Note: If you don't see this option then update your Lizard to GECKO 1.02 or above, take note you might need update this time the

firmware file and the flash file, read the Setup Manual on our downloads page to learn how to apply updates to your Lizard Device.

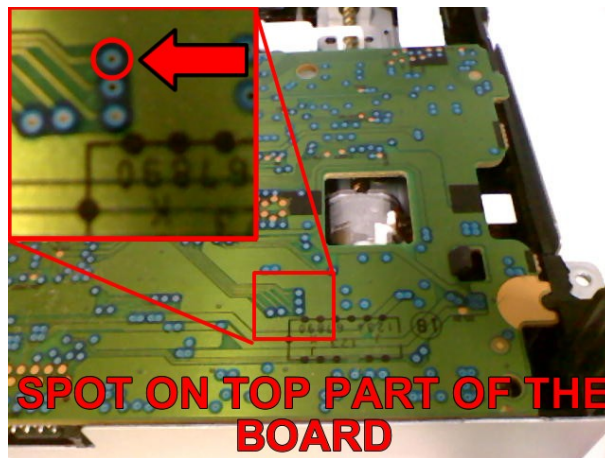


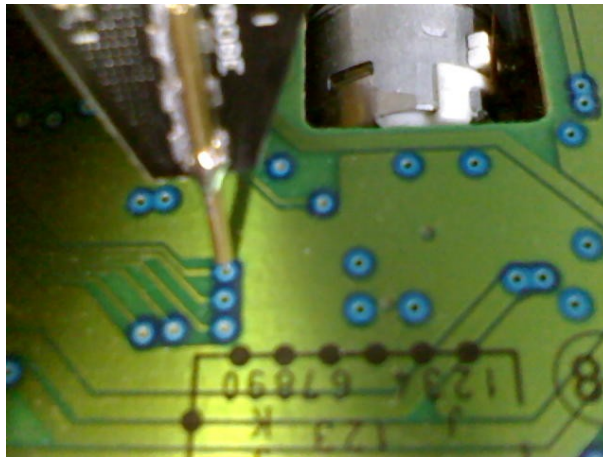
Step 2.- Lizard will ask you to restart the drive with Scorpion Touching Board. Pay attention to this step as is critical for the success of the Unlock.

First make sure the drive is turned off.



Now if you are working with drive assembled you need contact the following spot of the board with the probe on the Scorpion 2.

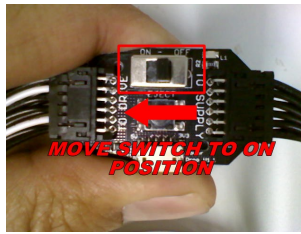




If you are working on the other side of the Board then check the following pictures



Now while you are contacting that spot TURN ON THE DRIVE. After 1 second please remove the probe from the spot that you are touching and leave it aside where don't contact any metallic part. The drive must not be reseted.



REMEMBER 1 SECOND AFTER POWER UP REMOVE THE PROBE FROM THE SPOT



Step 3.- After removing the probe and with Drive still Turned On, go to Lizard and Press OK and will immediately issue the MTKIntro command. At this time is sending the MTK Intro multiple times to unlock the drive. You can note also a message on the bottom stating “Press UP to Cancel”, in a perfect situation the unlock takes just a couple of seconds, if you see is taking forever you can just Press UP button on lizard and hold it till you return to menu. Probably it means you wired something wrong or maybe you don't contacted the proper spot or not for the enough time. Please Turn off the drive, review the steps and try again.



Step 5. If all goes smooth and the unlock is successful you should see a screen with the Vendor ID and Device ID displayed on the screen, thats the signal of you have successful unlocked your drive. You can continue now to next section where we will show you how to Read and Write.



Now Press OK button to continue next step

Section 2. Reading Drive

Now that you have Unlocked your Drive congratulations, the next steps are a breeze.

On Lizard Device Navigate to Samsung->Full Read Firmware



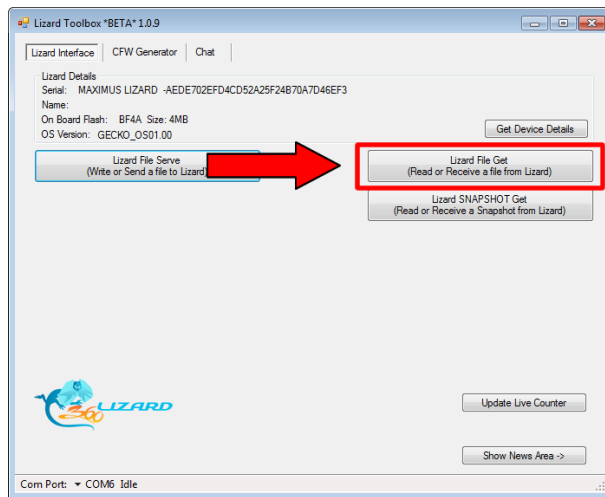
If you get the Screen “DRIVE IS NOT UNLOCKED” then you may need recheck the previous steps as it means the Lizard don't see the drive as unlocked. Remember when you unlock a drive will Remain unlocked till you turn it off. So make sure you didn't turned it off after unlocked.



If all goes OK you should see the START FILE GET screen, that means the Lizard is ready to start sending the Firmware file to the PC. Leave Lizard as is, DO NOT PRESS BUTTON OK yet

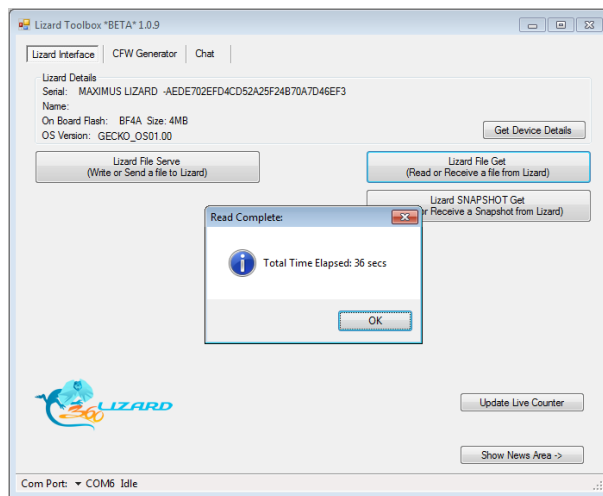


Now go to Toolbox press the FILE GET button



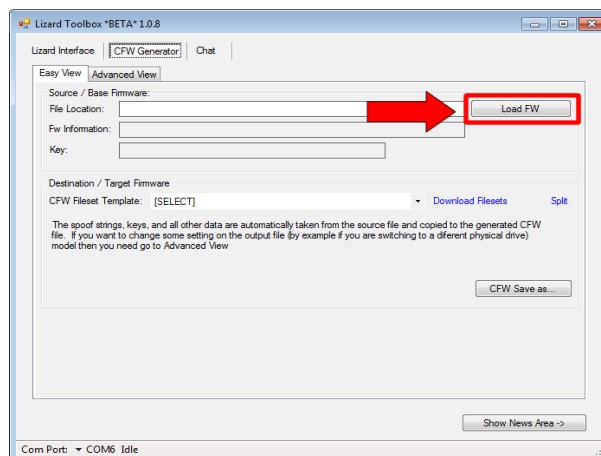
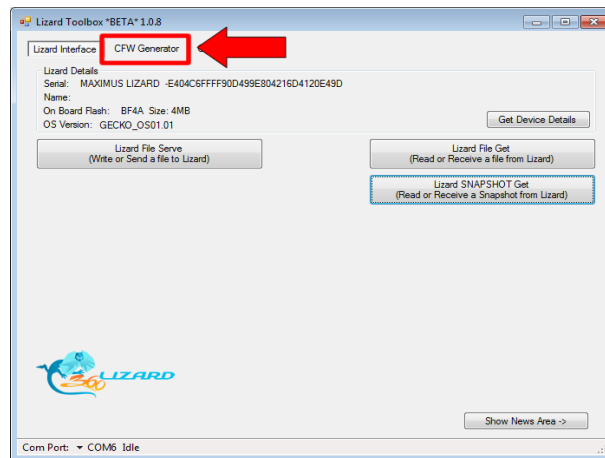
The read on Lizard will start automatically and you will get a confirmation screen on toolbox when finished. It might take approx 40 seconds to do the full read



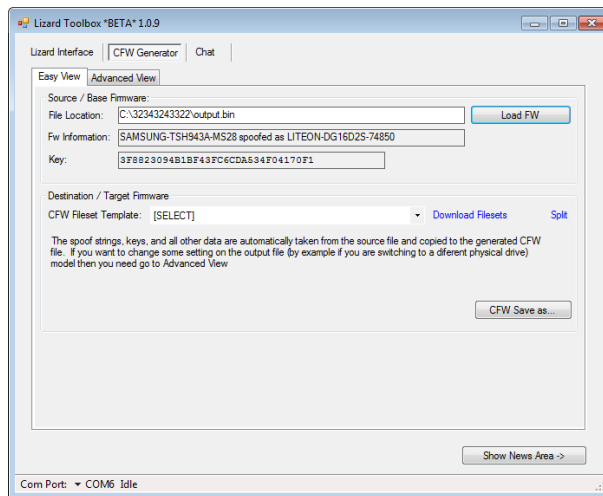


Section 3. Generating Custom Firmware File

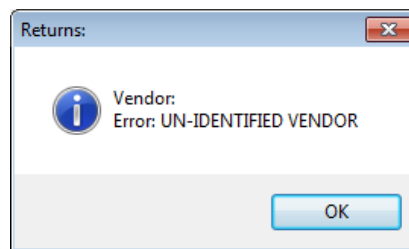
Now go to the CFW Generator Tab and under the EASY VIEW tab and load the File you just read



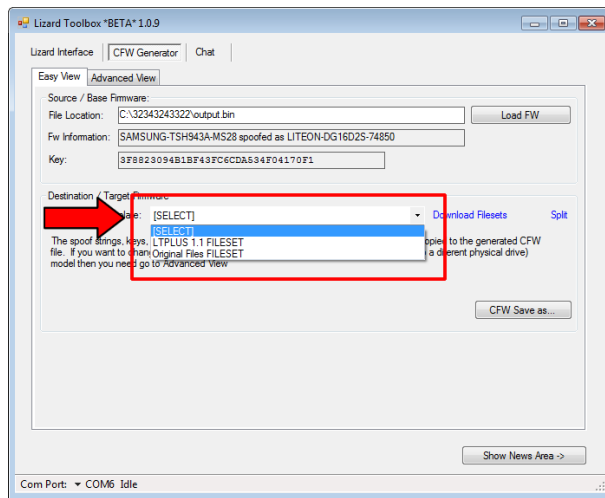
The details of the file you just read should be shown



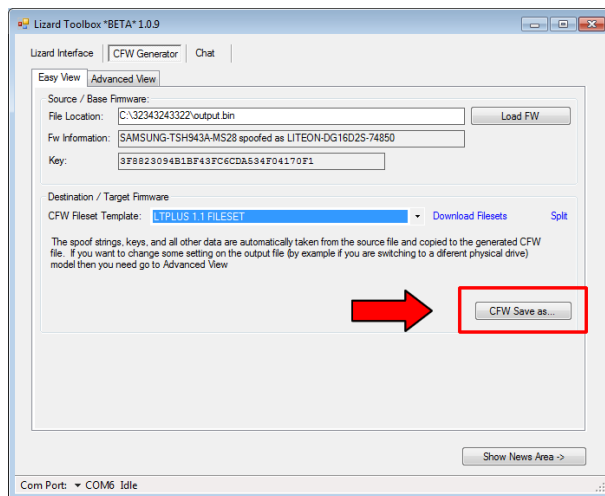
Note: In case you get an error showing Vendor not Identified, then its likely you have a weird variation of the Samsung drive, please submit your file zipped to: carranzaftp@hotmail.com and if its a valid variation we will submit a fix in the next 48 hours or earlier.



Choose a File Template from the list



Click on Save As



Section 3. Flashing the Drive

Before Write on a Samsung drive. PLEASE MAKE SURE YOU FOLLOW THE PREVIOUS STEPS AND ALL WENT SMOOTH AND NICE, AND YOU HAVE THE COPY OF THE FIRMWARE STORED SAFE ON YOUR COMPUTER. The reason of this is because you are about to rewrite the drive all previous information on it will be ERASED first and cannot be recovered. If its your first mod and you want to feel more safe try doing the read of the data (previous steps) 2 or 3 times or come to our IRC channel and ask if the key you get seems valid, you know it usually better ask to somebody that has done it in the past. Please check that weird keys like all 00's or all FF's, or all key on same number IS NOT A GOOD KEY so its better check carefully and ask other people before continue.

To start writing, Navigate to the Liteon->Write option on the Menu



You will be prompted for security warnings, press OK on both, its just to make sure you know what you are doing.



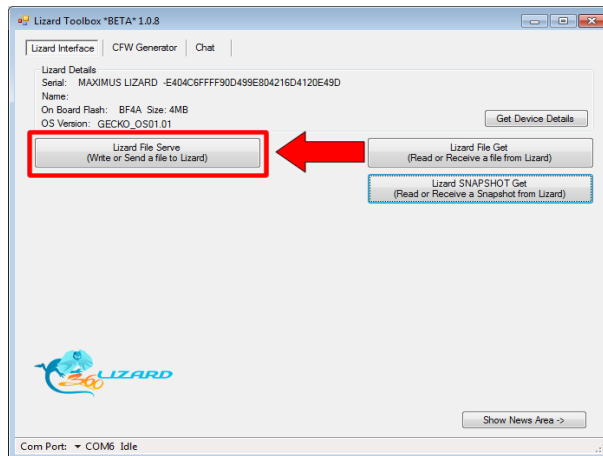
If you get the Screen "DRIVE IS NOT UNLOCKED" then you may need recheck the previous steps as it means the Lizard don't see the drive as unlocked. Remember when you unlock a drive will Remain unlocked till you turn it off. So make sure you didn't turned it off after unlocked.



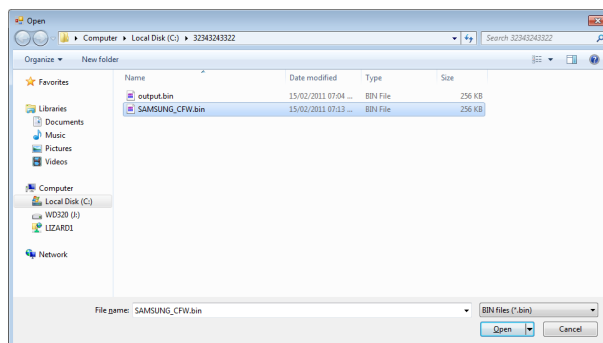
After a few seconds you will get the screen asking to start the FILE SERVE on the PC message, DONT PRESS OK BUTTON when you get this image



Now go to Lizard Toolbox and click on the Fileserve button



Choose the Custom Fw you want to flash on the drive, **MAKE SURE YOU CHOOSE THE PROPER FILE THAT YOU WANT TO WRITE** to avoid write a wrong type firmware on your drive. This step is Critical please don't overlook



After selecting the file the write will start automatically in lizard, let it finish, should take around 60 seconds to complete



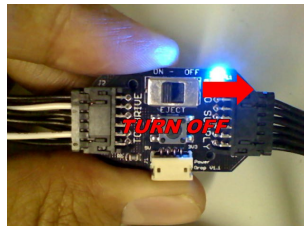
After the writing is finished, the verification will start on lizard, leave it finish



When all finished you will get the Success screen, make sure both Checksum should match, not matter what value are but should match.



Now the process is finished, its time to unplug everything
Power off the drive first



Unplug the Sata cable between drive and lizard



Remove Grabbers from scorpion probe,

If you used Scorpion for the HARDWARE UNLOCK then remove the grabber take extra care of not bending the hook

If you have your drive with cover removed reassemble cover of the drive

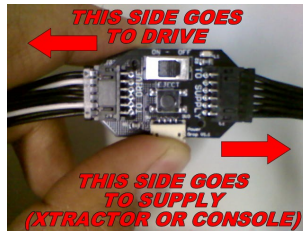


Install on the console and you are good to go, enjoy !!

APENDIX A – HOW TO CONNECT EVERYTHING FOR SOFTWARE UNLOCK

Connect Power Drop to Power Supply (xtractor or console), keep all turned off by now

Note: Please note the Power Drop has 2 sides, one Marked “TO DRIVE” and the other marked “TO SUPPLY”. Take care plugging the drive on the proper side and also the power supply on the other, otherwise you can damage your drive or your power supply or both.



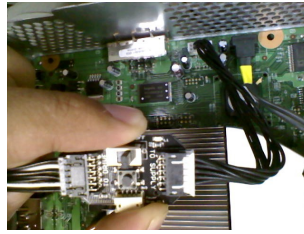
Connect the end pointing TO DRIVE to the drive



If you using an xtractor as power supply please plug it on the side “TO SUPPLY”, using the wire of the xtractor, the power drop will actually act like an extension of it.



If you will use your console to Power it (Some people think this is not Live Safe) plug it as in the picture, using the wire set that connect the console and the drive, Make sure your console is turned off while doing the connection. Also **DONT FORGET to put the Audio/Video cable** on the console, otherwise will turn off at approximate 1 minute when you turn on without those cables



More Connections

Connect Sata between cable and Lizard, Remember nothing is powered ON yet

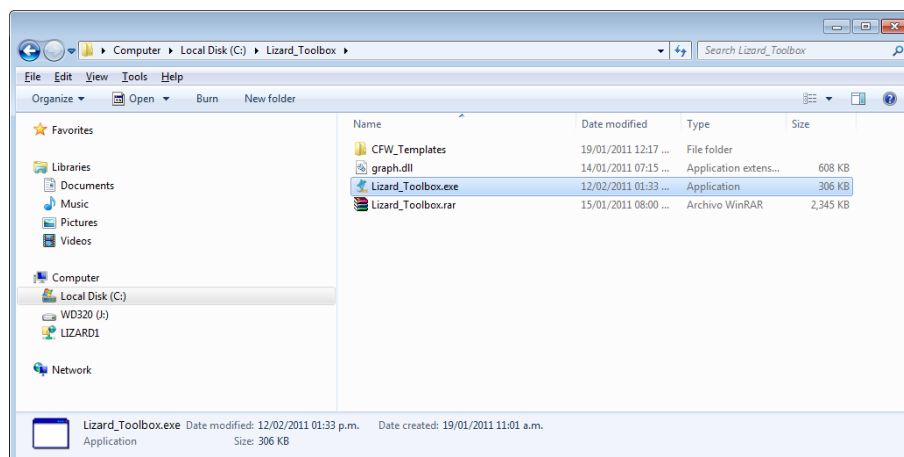


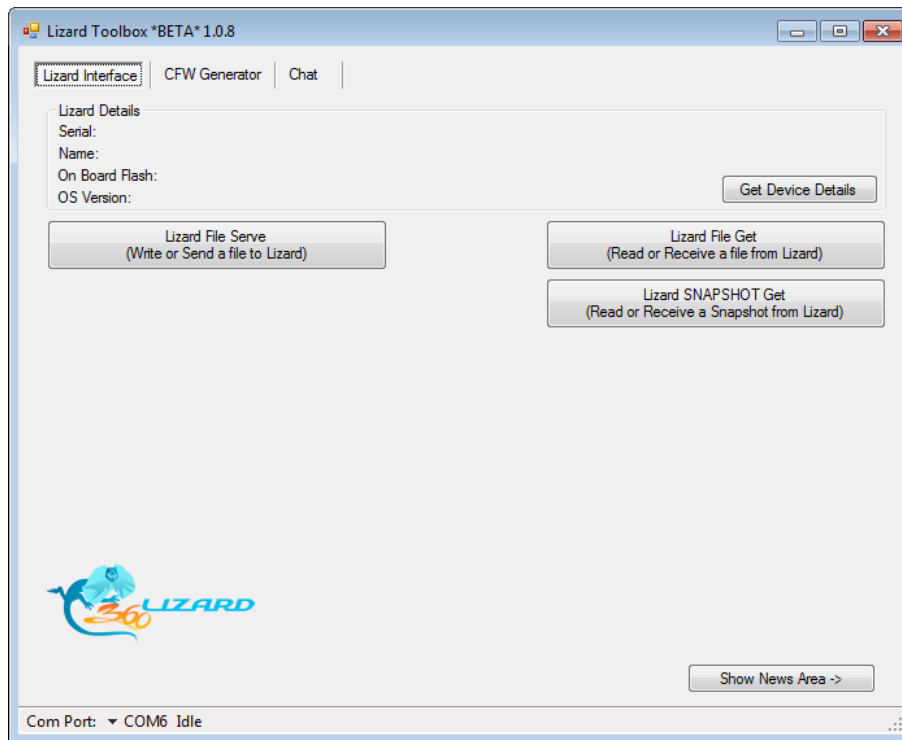
Connect Lizard to USB on the PC

Now connect the USB cable from your PC to lizard, if you have set the drivers properly it should take 5 seconds or less to be detected by the PC and showing information on the screen.



Open Lizard Toolbox



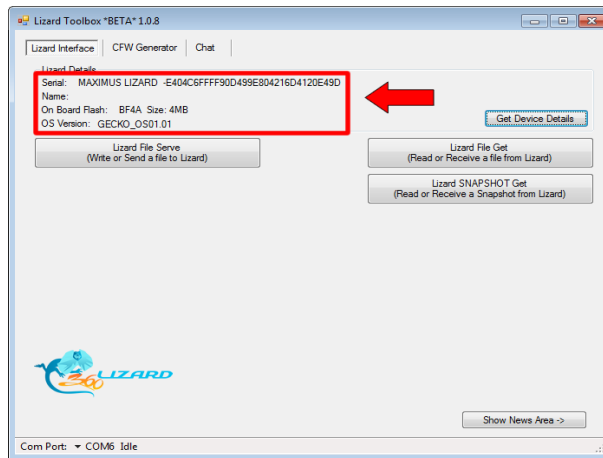
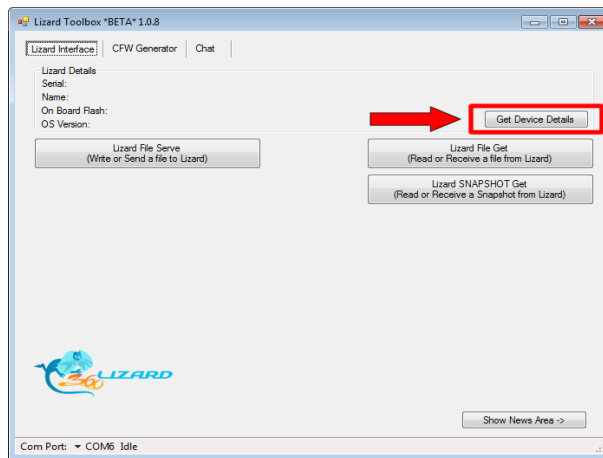


Check COM port and test Device Details

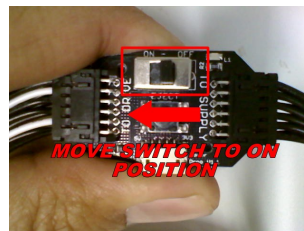
Please make sure you choose the proper com port on the bottom left corner of the Lizard Toolbox application



In order to test if you choose proper port Please click on Get Device Details Button on the Application, it should show you the Lizard Serial Number and Lizard OS information



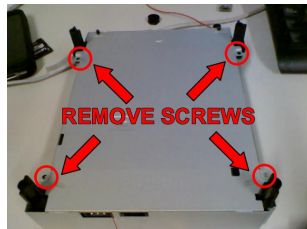
Now Turn on the Power Supply and Also turn on the Switch on the Power Drop. If the power supply will be a console don't forget to have plugged the Audio/Video Cables.



APPENDIX B. HOW TO CONNECT EVERYTHING FOR HARDWARE UNLOCK

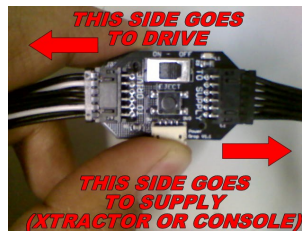
On this section we will learn how to retrieve the data from your Liteon Drive by using the Maximus Scorpion and the Lizard.

Remove bottom cover of the Dvd drive by removing the 4 screws on the bottom.



Connect Power Drop to Power Supply (xtractor or console), keep all turned off by now

Note: Please note the Power Drop has 2 sides, one Marked "TO DRIVE" and the other marked "TO SUPPLY". Take care plugging the drive on the proper side and also the power supply on the other, otherwise you can damage your drive or your power supply or both.



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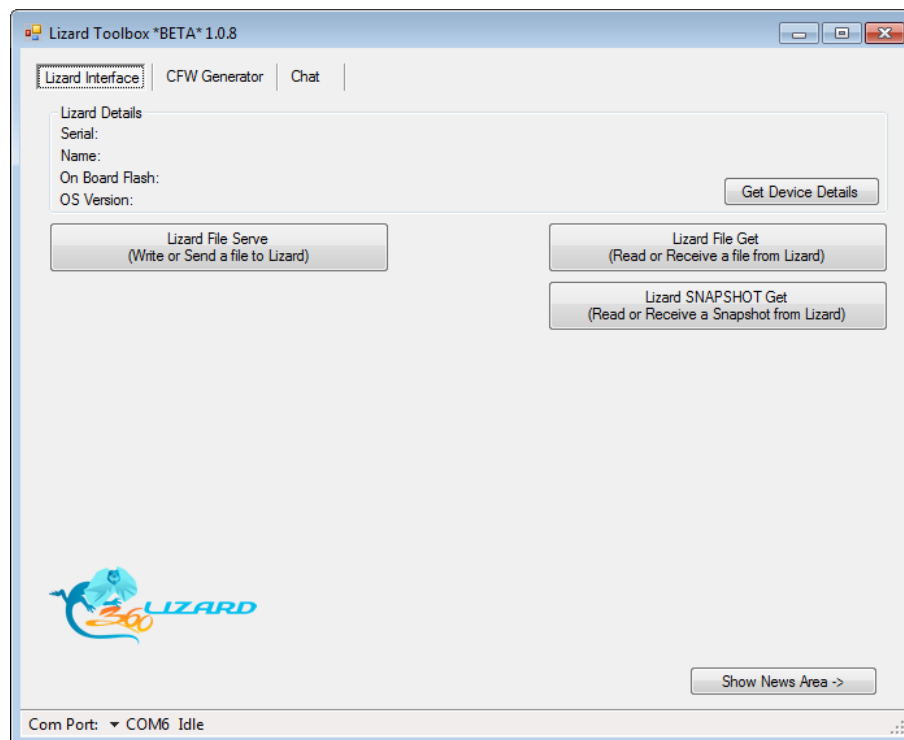
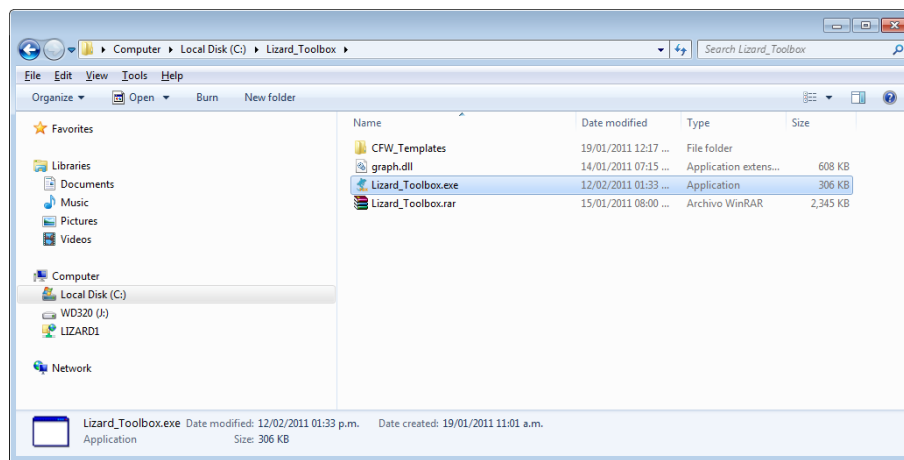


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Open Lizard Toolbox

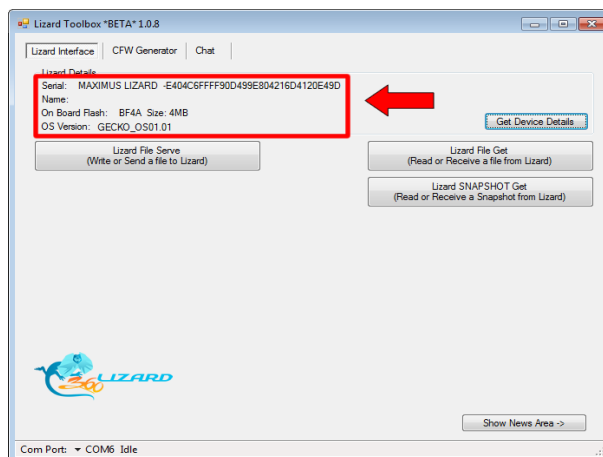
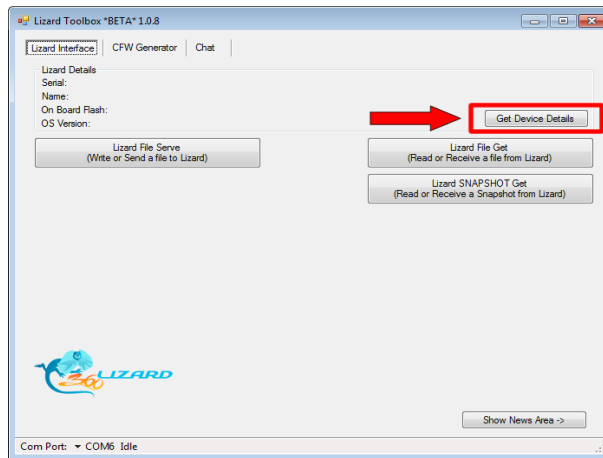


Check COM port and test Device Details

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In order to test if you choose proper port Please click on Get Device Details Button on the Application, it should show you the Lizard Serial Number and Lizard OS information



Now Turn on the Power Supply and Also turn on the Switch on the Power Drop. If the power supply will be a console don't forget to have plugged the Audio/Video Cables.

