# JungleFlasher v0.1.66



Complete User Guide

<u>(v0.1b)</u>

# **USING THIS TUTORIAL!**

**DO NOT TRY** to read this tutorial by scrolling through all the pages!

# It is not sequential in any way!

Use the flowchart links and links at bottom of each section to take you directly to the correct instructions for your situation!

Trying to read through each page regardless IS NOT RECOMMENDED!

# <u>USE THE LINKS!</u>

I AM A NEW USER OF JUNGLEFLASHER

**CLICK HERE** 

USED JUNGLEFLASHER BEFORE

**CLICK HERE** 

# Introduction

JungleFlasher is developed in conjunction with Team Jungle in an effort to bring all 360 DVD-Drive flashing functions together in one easy to use Win32 Application. JungleFlasher provides several functions that up until now were carried by several different app's in both Dos and Win32.

The **FirmwareTool 32** tab is used to process firmware files. Jungle Flasher will parse the files, identify the firmware type and display relevant information such as the all important DVD key and OSIG strings etc... On the Target sub-tab, MD5 hash checking of iXtreme firmware files is conducted to confirm authenticity. With both source and target files loaded, the relevant source data can be transferred to the Target (a.k.a. Spoofed), which can then be flashed to the target drive.

The **DVDKey32** tab is used to extract info from LiteOn - the undumpable drive. All unique information is extracted: DVD key, unique inquiry and identify strings and drive serial information. This info is stored in one easy to use file,"Dummy.bin". This is a 256kb file that mimics the approximate structure of a BenQ firmware file and is automatically loaded to the source sub-tab in the FirmwareTool 32 Tab. Jungle Flasher v0.1.55b also brought the unique feature of dumping "Dummy.bin" from iXtreme flashed LiteOn Drives solely using S-ATA. There is also a facility to create a "dummy.bin" from previously extracted files, although fresh extraction as reliable as possible. Multiple dumps are performed with comparison to account for the slightest chance that serial data may have become corrupt.

The **MTKFlash 32** tab is used to unlock Benq and Samsung drives and then dump the current flash for use in the source sub-tab in FirmwareTool 32 tab. You can also erase a LiteOn in preparation for flashing. All 3 MTK Based drives can be flashed using this tab.

The **Hitachi GDR3120** tab is for Hitachi drives which are flashed differently from the MTK based drives mentioned above, therefore have their own dedicated tab. Hitachi's are flashed as a "Live" drive, on a sector by sector basis and as such needs to be performed in a very controlled way so the process is heavily automated. JungleFlasher will only flash iXtreme to a stock drive and so a restore facility is provided, which allows for a full restore to stock f/w of previously modded drives. Several additional features like setting Mode-B over PortIO, USmodeB and 79Unlock are included for convenience. Dumping and flashing is also possible over PortIO for those who removed VIA drivers to work around Lite-On-Erase lockup issues.

JungleFlasher is intended to be rich in information providing as much relevant and useful information as possible. On the DVDKey 32 and MTKFlash 32 tabs, all I/O and COM port information is detected and displayed, as well as drive and device properties for the currently selected drive.

#### **Overview of JungleFlasher and its functions**

When you start JungleFlasher, you will be presented with **4 tabs**; FirmwareTool32, DVDKey32, MTKFlash32 and Hitachi GDR-3120L.



**FirmwareTool32** is used to view firmware details, manipulate these firmware's, and to save the firmware and/or details of the firmware.

It is split into 2 sections, Source and Target, with function buttons surrounding it.

Source, this is the originating firmware, this can be previously dumped firmware (containing console specific drive key, Drive string ID and serial data), original firmware, dummy firmware etc. This data should always mimic what the Xbox 360 should expect from the DVD Drive.

The Target area (buffer) should contain the firmware you wish to apply to the drive itself, this firmware will be manufacturer specific, BenQ firmware for BenQ drives / LiteOn firmware for LiteOn Drives etc. Hitachi Drives do not use FirmwareTool32 for many tasks using default settings.

FirmwareTool32 is primarily used for manipulation of firmware to be applied to MTK based drives. (not Hitachi drives! – they should be dumped/flashed/spoofed etc from the Hitachi tab!)



DVDKey32 is primarily used to obtain Key.bin, Inquiry.bin, Identify.bin and Dummy.bin from LiteOn PLDS DG-16D2S drives. It also has an option to rebuild from previous files (for people who used other, older applications or those who followed poor advice before.

JungleFlasher v0.165 brought the inclusion of **LO83info** for **LiteOn PLDS DG-16D2S 83850c drives.** This hack being used for obtaining the unique data from the newest drive revision found in consoles. With JungleFlasher v0.1.66b incorporating OpenKey used to decrypt the obtained file.

There are also 4 checkboxes found in this tab, **VIA Ports Only** and **Include non-IDE ports**, added for extra safety and compatibility; **USB Xtractor Switch** – for use with the Maximus USB Xtractor Push Button to extract feature this launches the DVDKey32 command from the Hardware Device itself. The final one being **Dummy.bin Only** – this being a cleaner method of storing files as Dummy.bin incorporates the other files obtained.

Firmware Tool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120

<u>MTKFlash32</u> contains a variety of functions, from unlocking and reading of **BenQ** and **Samsung** drives using their dedicated **Unlock** buttons.

MTKFlash32 is also where you are able to send the Intro of Death (a.k.a LiteOn Erase) to the LiteOn PLDS DG16-D2S after obtaining DVDKey, and for writing to the drive after Intro of Death.

MTKFlash32 will also **erase** and **write Samsung** and **BenQ** drives, once the drives have been unlocked.

MTKFlash32 will show, in the lower left section, the details of the drive inquiring on the respective **I / O Port** listed above. This is where you will identify which S-ATA Port to use for carrying out the process.



Hitachi GDR3120 As mentioned previously, the Hitachi Drives are flashed completely differently to the MTK Based drives; Hitachi's are flashed as a "Live Drive" on a sector by sector basis.

For this reason, JungleFlasher has its own dedicated Hitachi tab, all the flashing options you may need to do can be done under this tab.

As with the other Tabs, JungleFlasher will show the I/O port list for identifying what S-ATA Port your drive is on.

It also incorporates a **Raw Mode-B** command for putting a drive into **Mode-B** and automates the Play/Pause/Eject for **79Unlock** – Audio Disc still required!

Once the drive is actually in **Mode-B** you can use the flashing options located in this section of the application, the options themselves are pretty self explanatory.

With the **Firmware Pack** installed, JungleFlasher will automatically load the correct iXtreme file for your drive, or Original Firmware if restoring.

# **BEFORE USING JUNGLEFLASHER**

#### You Must Have .net framework installed

.net framework 2.0 or later for Windows XP machines .net framework 3.5 SP1 on Windows Vista Machines .net framework is built-into Windows 7 (easy life!)

#### JungleFlasher Firmware Pack (vital for Hitachi Drives)

Download the latest iXtreme firmwares from xbins – place all the .bin files into the firmware folder that is inside the JungleFlasher folder! (This allows for auto-loading of firmware as well as correct operation during Hitachi manipulation/flashing)

#### If you are using a VIA card - remove the drivers!

It is advisable as the drivers tend to cause problems on a lot of drives but very noticeable with erased LiteOn, causing the infamous 'Lite-On + VIA Freeze' <u>CLICK HERE TO FIND OUT HOW TO DO IT PROPERLY</u>



# PortIO32

# Follow the link <u>CLICK HERE for instructions HOW!</u>

## <u>Other Info – for troubleshooting, or the inquisitive mind</u>





For **Exact** model information of drive you must read the label on top of the drive case! You will require this information to enable you to choose the correct methods for your drive!

# Samsung (TS-H943) MS25 /MS28.

#### <u>Overview.</u>

The steps to modifying / restoring a Samsung Drive follow the basic outline of:

- Unlocking the Drive (MS28 or Xtreme 3.3+ Firmwares)
- Reading the Original firmware
- Patching Key into hacked Firmware
- Writing Drive

The tutorial covers multiple unlock methods, which are dependent upon which drive, its current firmware and your SATA chipset!

The following flowchart will help you decide which method you should use to achieve the unlocked state on a Samsung drive (Vendor Mode – status 0x70) in preparation for READING and/or WRITING to, the drive

#### Now, we can proceed to modifying the drive.

Power drive with it connected to PC via SATA then open JungleFlasher.exe. You will be presented with the Welcome Screen.



After a few seconds the main window will load.

Follow the flowchart below to obtain the correct method for your setup and drive!



#### Unlocking the drive.

Before we can do anything to the drive, it must be in Vendor Mode (status 0x70).

All Unlocking is taken place under the **MTKFlash 32** tab.

FirmwareTool 32	DVDKey 32 MTK Flash 32 Hitachi GDR 3120	
Source   Inquiry	Identify Drive Serial	

Please note, unmodified **Samsung MS25's** have no **FirmGuard** therefore do not need an unlock method to be applied, simply click **Intro / DeviceID** and check flash chip properties for status

0x7	0.
Flashing Tasks Intro / Device ID Read Erase	Dutro / ATA Reset
FirmwareTool 32   DVDKey 32 MTK Flash 32   Hitachi GDF	33120 activate.iso
OxCF00  Port Properties I/O Address: 0xCF00	Benq Sammy Lite-On UnLock Erase
Type: SATA Channet: Primary Postion: Master	Flash Chip Properties Vendor ID: 0x8F Device ID: 0x86
Device: VIA VT6421 RAID Controller	Name: SST(SST39SF020) Size: 262144 bytes Type: Parallel flash with Status 0x70
Vendor: Drive in Vendor Mode! Name: F/W/Rev:	Flashing Tasks Intro / Device ID Outro / ATA Reset
Reserved:	Read Erase Write
Sending Vendor Intro to port 0xCF00 Parallel flash found with Status 0x70	<u> </u>
Sending Device ID request to port 0xCF00 Manufacturer ID: 0xBF Device ID: 0xB6 Flash Mame: SST(SST39SF020) Flash Size: 262144 bytes	

**Now CLICK HERE to proceed** 

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#### Unlocking the drive.

Before we can do anything to the drive, it must be in Vendor Mode (status 0x70).

All Unlocking is taken place under the **MTKFlash 32** tab.

FirmwareTool 32	DVDKey 32 MTK Flash	n 32 Hitachi GDR 3120	
Source Inquiry Ide	entify Drive Serial		

#### Stock MS28's (Unmodified).

Sammy UnLock.

Select correct I/O Port (check for TS-H943 in the Drive Properties) and click Sammy UnLock.

FirmwareTool 32 DVDKey 32 MTK Flash 32 Hitach	i GDR3120
I/O Port         ØxCF00         I/O Address:         0xCF00         Type:         SATA         Channel:         Primary         Postion:         Master         Device:         VIA VT6421 RAID Controller         Drive Properties         Vendor:       TSSTcorp         Name:       DVD-ROM TS-H943A         F/W Rev:       ms28         Reserved:	360 Tools       Benq       UnLock       Flash Chip Properties       Vendor ID:       Device ID:       Name:       Size:       Type:         Flashing Tasks       Intro / Device ID       Outro / ATA Reset       Read     Erase
JungleFlasher 0.1.51 Beta Session Started Thu Mar 05 17:45:47 20090 This is a 32 bit process running on 2 x 32 bi Found 10 T/0 Ports. Found 1 Com Ports. Found 6 windows drives. Found 2 CD/DVD drives.	

You will be presented with the following warning notifying you that Sammy UnLock only works on stock drives and how to unlock if using (i)Xtreme.



Select yes and watch the **Running Log** in JungleFlasher; this is a 'good' return message, JungleFlasher will also automatically send the intro command and put the drive in **Vendor Mode**.



The drive should be in Vendor Mode (0x70) now and return good flash chip properties; you can check under **Flash Chip Properties**, **Drive Properties** should show **"Drive in Vendor Mode!"** 

SATA		Flash Chip Properties
Primary		Vendor ID: 0xBF
Master		Device ID: 0xB6
VIA VT6421 RAID Controller		Name: SST(SST39SF020)
		Size: 262144 bytes
	<b>1</b>	Type: Parallel flash with Status 0x70
Drive in Vendor Mode!		Flashing Tasks
		Intro / Device ID Outro / ATA Reset
		Read Erase Write
	Primary Master VIA VT6421 RAID Controller	Primary Master VIA VT6421 RAID Controller s

# Now CLICK HERE to proceed

#### <u>Xtreme 3.3 -> iXtreme 1.4 Unlock using Activate.iso.</u>

For this you need the Activate.iso found in the upper right hand corner of the MTKFlash 32 tab,

20	activate.iso
360 Tools Beng Sammy UnLock UnLock	Lite-On Erase
Flash Chip Properties Vendor ID:	

burnt to **Dual Layer + R Media** (this is vital for later firmwares). Simply burn it with no layerbreak settings, with all data present on first Layer, <u>IMGBurn</u> 2.5.0.0 will do this fine just select the ISO and confirm you want to burn to a large capacity disc with all data present on L0 (Layer 0).

Once burned, simply place it in your Samsung drive while connected to the PC, wait 30 seconds and run JungleFlasher.

#### Unlocking the drive.

Before we can do anything to the drive, it must be in Vendor Mode (status 0x70).

All Unlocking is taken place under the MTKFlash 32 tab.

FirmwareTool 32 DVD	Key 32 MTK Flash 32 Hitachi GDR 3120	
Source Inquiry Identif	Drive Serial	

You will presented with a screen resembling this, select correct I/O Port (check for TS-H943 in the Drive Properties) and click Intro / Device ID and then check the Running Log.

FirmwareTool 32 DVDKey 32 MTK Flash 32	litachi GDR3120
I/O Port         DixCF00         Port Properties         I/O Address:       0xCF00         Type:       SATA         Channel:       Primary         Postion:       Master         Device:       VIA VT6421 RAID Controller	Activate.iso 360 Tools Beng UnLock Sammy Lite-On Erase Flash Chip Properties Vendor ID: Device ID: Name: Size:
Drive Properties Vendor: TSSTcorp Name: DVD-ROM TS-H943A F/W Rev: ms28 Reserved:	Type: Flashing Tasks Intro / Device ID Outro / ATA Reset Read Erase Write

If Activate.iso worked correctly, you will get good **flash chip properties (0x70)** and drive will appear in **Vendor Mode** in **Drive Properties.** 

FirmwareTool 32 DVDKey 32 MTK Flash 32 Hitachi Gl	DR3120
I/O Port       DxCF00       Port Properties       I/O Address:       0xCF00       Type:       SATA       Channel:       Primary       Postion:       Master       Device:       VIA VT6421 RAID Controller	activate.iso         360 Tools       Benq       Sammy       Lite-On         UnLock       UnLock       Erase         Flash Chip Properties       Vendor ID:       0xBF         Device ID:       0xB6       Name:       SST(SST39SF020)         Size:       262144 bytes       Type:       Parallel flash with Status 0x70
Name: F/W Rev: Reserved:	Intro / Device ID Dutro / ATA Reset Read Erase Write
Sending Vendor Intro to port 0xCF00 Parallel flash found with Status 0x70	
Sending Device ID request to port 0xCF00 Manufacturer ID: 0xBF Device ID: 0xB6 Flash Name: SST(SST39SF020) Flash Size: 262144 bytes	

# **Now CLICK HERE to proceed**

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#### Unlocking iXtreme 1.5 onwards

For this method, we still need to power on the drive with the "half open tray".

#### If using a 360 to power the drive

This method can be tricky to accomplish.

You need to power on the drive with **Eject status closed** but **Tray Half Open** – To do this using an Xbox 360 as Power source, eject the DVD drive, then, press eject to 'close' the tray. **Now this is the important part – you MUST remove the DVD power plug from the DVD Drive BEFORE it closes fully.** 

Wait for a few seconds and replace the power plug into the DVD drive taking **extreme caution** to plug the plug the right way around – once done, the drive is now powered, console thinks its closed but it is in fact half open.

#### If using a connectivity kit to power the drive

You need to power on the drive with **Eject status closed** but **Tray Half Open** – To do this using a connectivity kit as Power source, eject the DVD drive, then, press eject to 'close' the tray. **Now this is the important part – you MUST switch off the power BEFORE it closes fully.** 

Wait for a few seconds and switch power on connectivity kit back on – once done, the drive is now powered, console thinks its closed but it is in fact half open.

#### Load JungleFlasher, and select MTKFlash 32 tab.



The drive should be in Vendor Mode (0x70) now and return good flash chip properties, you can check in the **Running Log** or **Flash Chip Properties**, The drive should also show as "**Drive In Vendor Mode!**" in the **Drive Properties**.

FirmwareTool 32   DVDKey 32   MTK Flash 32   Hi	tachi GDR3120
I/O Port       0xCF00       Port Properties       I/O Address:       0xCF00       Type:       SATA       Channel:       Primary       Postion:     Master       Device:     VIA VT6421 RAID Controller	Activate.iso 360 Tools Benq UnLock Sammy Lite-On Erase Flash Chip Properties Vendor ID: 0xBF Device ID: 0xB6 Name: SST(SST39SF020)
Drive Properties Vendor: Drive in Vendor Mode! Name: F/W Rev: Reserved:	Size: 262144 bytes Type: Parallel flash with Status 0x70 Flashing Tasks Intro / Device ID Outro / ATA Reset Read Erase Write
Re-sending Vendor Intro:  Parallel flash found with Status 0x70 Sending Device ID request to port 0xCF00 Manufacturer ID: 0xBF Device ID: 0xB6 Flash Name: SST(SST39SF020) Flash Size: 262144 bytes	

**Now CLICK HERE to proceed** 

#### DeviceID Unlock / Vcc Trick (VIA/Nforce only) Stock + Modified Drives.

This method has only really been tested on VIA (no drivers, or 530c drivers) and Nforce Chipsets, although there is no harm in trying on others, this method works on Hacked and Stock Drives.

Load JungleFlasher, and select MTKFlash 32 tab.

FinwareTool 32 DVDK ep 32 MTK Flash 32 Heach GDR 3120	
Source   Inquity   Identity   Drive Serial	

Select correct I/O Port (check for TS-H943 in Drive Properties) and click Intro / Device ID.

	OVDKey 32 MTK Flash 32	Hitachi GDR3120
I/O Port		activate.iso
0xCF00	-	360 Tools
Port Properties		Beng Sammy Lite-On UnLock UnLock Erase
I/O Address:	0xCF00	
Туре:	SATA	Flash Chip Properties
Channel:	Primary	Vendor ID:
Postion:	Master	Device ID:
Device:	VIA VT6421 RAID Controller	Name:
		Size:
Drive Properties	:	Туре:
Vendor:	TSSTcorp	
Name:	DVD-ROM TS-H943A	Flashing Tasks
F/W Rev:	ms28	Intro / Device ID Outro / ATA Reset
Reserved:		Read Erase Write

JungleFlasher will prompt you with instructions.



Click Yes the Running Log will display something similar to this.

```
Sending Vendor Intro to port OxCFOO
Invalid Status
Re-sending Vendor Intro:
.....
```

When ...... Are appearing, do as previously instructed by JungleFlasher. Power off the drive then, within 1 second, power it back on.

The drive should be in Vendor Mode (0x70) now and return good flash chip properties, you can check in the **Running Log** or **Flash Chip Properties**, The drive should also show as "**Drive In Vendor Mode!**" in the **Drive Properties**.

FirmwareTool 32   DVDKey 32   MTK Flash 32   Hitachi GDR 3120		
I/O Port OxCF00 Port Properties I/O Address: OxCF00 Type: SATA Channel: Primary Postion: Master Device: VIA VT6421 RAID Controller	activate.iso         360 Tools         Benq       Sammy         UnLock       Lite-On         Flash Chip Properties         Vendor ID:       0x8F         Device ID:       0x86         Name:       SST(SST39SF020)	
Drive Properties Vendor: Drive in Vendor Mode! Name: F/W Rev: Reserved:	Size: 262144 bytes Type: Parallel flash with Status 0x70 Flashing Tasks Intro / Device ID Outro / ATA Reset Read Erase Write	
Re-sending Vendor Intro:  Parallel flash found with Status 0x70 Sending Device ID request to port 0xCF00 Manufacturer ID: 0xBF Device ID: 0xB6 Flash Name: SST(SST39SF020) Flash Size: 262144 bytes		

Now CLICK HERE to proceed

lf it didn't work – read on

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#### Alternate method if you are struggling with the above

Load JungleFlasher, and select MTKFlash 32 tab.



Select correct I/O Port (check for TS-H943 in Drive Properties) and click Intro / Device ID.

FirmwareTool 32 DVDKey 32 MTK Flash 32 Hitacl	hi GDR3120
I/O Port DxCF00 Port Properties	360 Tools Beng Sammy Lite-On UnLock UnLock Erase
I/O Address: 0xCF00 Type: SATA Channel: Primary Postion: Master Device: VIA VT6421 RAID Controller	Flash Chip Properties Vendor ID: Device ID: Name: Size:
Drive Properties Vendor: TSSTcorp Name: DVD-ROM TS-H943A F/W Rev: ms28 Reserved:	Type: Flashing Tasks Intro / Device ID Outro / ATA Reset Read Erase Write

JungleFlasher will prompt you with instructions.



Now power off the drive!

Then click YES,

Click Yes the Running Log will display something similar to this.

Sending Vendor Intro to port OxCFOO Invalid Status Re-sending Vendor Intro: .....

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#### When ...... Are appearing, power **ON** the drive!

The drive should be in Vendor Mode (0x70) now and return good flash chip properties, you can check in the **Running Log** or **Flash Chip Properties**, The drive should also show as "**Drive In Vendor Mode!**" in the **Drive Properties**.

FirmwareTool 32   DVDKey 32   MTK Flash 32   Hitachi GDR 3120					
	I/O Port	<b>•</b>		360 Tools	
	Port Properties			Benq Sammy Lite-On UnLock UnLock Erase	
	Туре:	SATA		Flash Chip Properties	
	Channel:	Primary		Vendor ID: 0xBF	
	Postion:	Master		Device ID: 0xB6	
	Device:	VIA VT6421 RAID Controller		Name: SST(SST39SF020)	
				Size: 262144 bytes	
	Drive Propertie Vendor:	es Drive in Vendor Mode!		Type: Parallel flash with Status 0x70	
	Name:			Flashing Tasks	
	F/W Rev:			Intro / Device ID Outro / ATA Reset	
	Reserved:			Read Erase Write	
Re-s	ending Vendo	r Intro:			
			-		
Parallel flash found with Status 0x70					
Sending Device ID request to port 0xCF00 Manufacturer ID: 0xBF					
	.ce ID: 0xB6 h Name: SST	(SST39SF020)			
		144 bytes			
					~

# Now CLICK HERE to proceed

#### Reading the Firmware from the drive.

Now, we would like to read the firmware from the drive first, so select read.

Drive Properties Vendor: Drive in Vendor Model	Type: Parallel flash with Status 0x70
Name:	Flashing Tasks
F/W Rev:	Intro / Device ID Outro / ATA Reset
Reserved:	Read Erase Write

Again, watch the Running Log for constant status updates.

Firmware reading:

Flash Name: SST(SST39SF020)
Flash Size: 262144 bytes
Getting Status from port 0xCF00
Parallel flash found with Status 0x70
Reading Bank 0:
Reading Bank 1:
Reading Bank 2:
1

Once the firmware has been successfully read, JungleFlasher will prompt you to save it.



Once saved, JungleFlasher will then prompt you asking if you would like to auto-load iXtreme for Samsung Drives. You must have installed the **JungleFlasher Firmware Pack** into the same directory as JungleFlasher.exe if you wish to benefit from this feature.

I/O Port OxCF00 Port Properties I/O Address: Type: Channel: Postion: Device: Drive Properties	CxCF00 SATA Primary Master VIA VT6421 Doading Source Samsung fir	activate.iso 360 Tools Benq Sammy Lite-On UnLock UnLock Erase Flash Chip Properties Vendor ID: 0xBF Device ID: 0xB6 39SF020) rtes sh with Status 0x70 No Outro / ATA Reset Read Erase Write	
Loading MTK_Flash Inquiry string for Identify string for DVD key found @ 0:	und ound x40KC key is 738718BBF9B3AF ng OSIG: TSSTcorpDVD-ROM TS	BC3655A9F98156A17A	

Click **Yes** to auto load iXtreme (from the firmware pack) for Samsung into the **Target Buffer**, JungleFlasher will also load your previously dumped **Sam-OFW.bin** as **Source Firmware.** Then, copy data from **Source to Target automatically.** 

Just verify **Source data** reports as it should, OSIG of **TSSTcorpDVD-Rom TS-H943** with a key with no multiple **FF / 00 / 77 bytes** 

FirmwareTool 32   DVDKey 32   MTK Flash 32   Hitachi GDR3120	
Source   Inquiry   Identify   Drive Serial	1
D:\JF TUT\151\Samsung\SAM-OFW.bin	
Vendor         Model         Rev         Firmware Type         DVD Key @           Samsung TS-H943A         ms28         XTREME1.4-12x         7387188BF983AFEC3655A9F98156A17A	Save Drive Key
OSIG: TSSTcorpDVD-ROM TS-H943Ams28	Load Source Firmware
Advanced View Spoof Source to Target User Guide	
Target   Inquiry   Identify   Drive Serial	Open Target Firmware
D:\Documents and Settings\Oggy\Desktop\JFDev.0.0.59betalXb\JFDev.0.0.59\firmware\ix151-samsung. Vendor Model Rev Firmware ver: DVD Key @ 0x40EC	Manual Spoofing
Samsung TS-H943A ms28 KTREME1.51-12X- FINAL OSIG: TSSTcorpDVD-ROM TS-H943Ams28	Save to File
Identify string found DVD key found @ 0x40EC key is 77777777777777777777777777777777777	
Spoofing Target DVD Key copied to target Inquiry strings identical Identify strings identical	
	~

To save a firmware file based on what's currently in Target Buffer click, Save to File.

Target       Inquiry       Identify       Drive Serial         D:\Documents and Settings\Oggy\Desktop\JungleFlasherPDF(4)\firmware\ix151-samsung.bin	
Vendor Model Rev Firmware ver: DVD Key @ 0x40EC Samsung TS-H943A ms28 XTREME1.51-12X- 738718BBF9B3AFEC3655A9F98156A17A	Open Target Firmware
	Manual Spoofing
	Save to File

JungleFlasher will ask you where to save the hacked firmware and what you want to name it, and then you can proceed to write the firmware to the drive.

#### Writing Firmware to the drive

To write the firmware, as long as drive is still unlocked (Vendor Mode) we just click **MTKFlash 32** tab.

🗢 JungleFlasher 0.1.51 Beta 📃 🗖 🙋		
FirmwareTool 32 DVDKey 32 MTK Flash 32 Hitachi GDR 3120	1	
Source Inquiry Identify Drive Serial		

Verfify you have good flash chip properties still.

operties		
0xBF		
Device ID: 0xB6		
Name: SST(SST39SF020)		
262144 bytes		
Parallel flash with Status 0x70		
Flashing Tasks		
Intro / Device ID Outro / ATA Reset		
Read Erase Write		

Then, click Write.

Flash Chip Properties			
Vendor ID:	0xBF		
Device ID:	Device ID: 0xB6		
Name:	Name: SST(SST39SF020)		
Size: 262144 bytes			
Туре:	Parallel flash with Status 0x70		
Flashing Tasks			
Intro / Device ID Outro / ATA Reset			
Read Erase Write			

Write Command, will erase and flash all 4 banks in turn, then read back the flash and verify.

A series of 16 .....'s is JungleFlasher writing the 16 sectors of each bank (4 banks, 0/1/2/3)

After writing all 64 sectors, signaled by 64 dots (16 dots across 4 banks) JungleFlasher will verify what it wrote by reading back and comparing against the **Target Buffer**. So, what we really want to see is **Write Verified OK!** 



Ok, now you have flashed your Samsung Drive successfully,

## Now send OUTRO to the drive

-Flashing Tasks					
Intro / Device	e ID	Ou	tro 7.	ATA Reset	
Read	Era	se		Write	

Will look like this – unless it's a ms25 (self explanitory)

Drive Properties	terran and the
Vendor:	TSSTcorp
Name:	DVD-ROM TS-H943A
F/W Rev:	ms28
Reserved	

Power off – connect back to console and test!

should you not get Write Verified OK! Please ask for support in the JungleFlasher support channel, found at irc.efnet.net - channel #JungleFlasher. Or click <u>HERE</u>

# **RETURN TO START OF TUTORIAL**

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## BenQ VAD6038 (62430c and 64930c) Overview

The BenQ Drive revision is tackled in a very similar way to the Samsung Drives.

The steps to modifying / restoring a BenQ Drive follow the basic outline of:

- Unlocking the Drive
- Reading the Original firmware
- Patching Key into hacked Firmware
- Erasing Drive
- Writing Drive

The tutorial will state multiple unlock methods, once drive is **Unlocked / In Vendor Mode** (0x73) you should proceed to the next step of **reading the firmware** from the drive.

#### The following Flowchart Enables you to use the correct method for your drive!



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#### Unlocking the drive.

Before we can do anything to the drive, it must be in Vendor Mode (status 0x73), the majority of the unlock methods are found under **MTKFlash32** tab,

#### Half Open Tray Unlock for iXtreme 1.5+.

If using a 360 to power the drive this method can be tricky to accomplish as the 360 likes to close the DVD Drive after powering it on.

You need to power on the drive with the **Tray Half Open** – To do this using an Xbox 360 as Power source, eject the DVD drive and then **remove the power lead from the Drive**.

Close the tray half way and plug the DVD Drive power cable back into the drive, being VERY cautious to ensure the plug is the right way around.

#### Using a Connectivity Kit / Xtractor to power the drive.

The easiest way to do this is to simply use the eject button on your connectivity kit to eject the drive tray, power off the connectivity kit, push the tray half in and power back on the connectivity kit.

Ok, now we half the half open tray, we navigate to **MTKFlash32** tab if you haven't already.

Firmware Tool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120	
I/O Port				activate.iso
		Click	Intro / DeviceID.	

Intro / Device ID

Read

If tray status is correct, drive should return good Flash Chip Properties showing status 0x73, Drive Properties should show "Drive In Vendor Mode!".

Erase

Outro / ATA Reset

Write

Firmware Tool 32 DVDKey 32 MTK Flash 32 Hitac	hi GDR3120
I/O Port    0xE800   Port Properties   I/O Address:   0xE800   Type:   SATA   Channel:   Primary   Postion:   Master   Device:   VIA VT6421 RAID Controller    Drive Properties  Vendor:   Vendor:   Drive in Vendor Mode!   Name.   F/W Rev:   Reserved:	360 Tools Benq Sammy Lite-On Erase UnLock UnLock Lite-On Erase Flash Chip Properties Vendor ID: 0xC2 Device ID: 0x11 Name: MXIC(MX25L2005) Size: 262144 bytes Type: Serial flash with status 0x73 Flashing Tasks Intro / Device ID Outro / ATA Reset Intro duce Vendor Mode and get flash Device Info
e-sending Vendor Intro: erial flash found with Status 0x73 ending Device ID request to port 0xE800 enufacturer ID: 0xC2 evice ID: 0x11 Lash Name: MXIC(MX25L2005) Lash Size: 262144 bytes	

Once drive is in Vendor Mode, you can proceed with Reading the Drives Firmware.

CLICK HERE TO PROCEED

## BenQ UnLock Stock/ iXtreme 1.1 -> 1.41 / Xtreme Firmware's Only.

# Please note, BenQ-Un-Lock **WILL NOT** work on drives that have iXtreme 1.5 firmware on them (please use VCC Trick or Half Open Tray)

Connect your BenQ drive up via SATA to your PC, power on, and run JungleFlasher.

After a few seconds you will be taken to the main application.

Click the MTKFlash32 tab.

JungleFlasher 0.1	and the second sec			
Firmware Tool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120	
		1		
I/O Port				activate.iso

Then, select correct I/O Port by verifying PBDS VAD6038 shows in the Drive Properties and click BenQ UnLock.

JungleFlasher 0.1.66 Beta	
Firmware Tool 32 DVDKey 32 MTK Flash 32 Hita	chi GDR3120
INFO - Drive could also be 62430C which has diff properties Drive Properties Vendor: SATA Name: DVD-RDM FAV Rev: 6243	360 Tools           Benq         Sammy         Lite-On Erase           Hash Chip Properties         Vendor ID:         Vendor ID:
Reserved: 0CA 1 RAID Controller Drive Properties Vendor: PBDS	Device ID: Name: Size: Type:
Name: VAD6038-64930C F/W Rev: Reserved:	Flashing Tasks     Intro / Device ID     Outro / ATA Reset       Read     Erase     Write

JungleFlasher will send the Magic Keys to unlock the drive and should return this message in the **Running Log.** JungleFlasher has also sent the Intro command to the drive.

```
Sending Magic Keys to Drive on port 0x0xCF00
Done!
Sending Vendor Intro
Requesting Device ID
Manufacturer ID: 0xC2
Device ID: 0x11
Flash Name: MXIC(MX25L2005)
Flash Size: 262144 bytes
```

^

The drive should be in **Vendor Mode (0x73)** now and return good flash chip properties, you can check in the **Running Log**, **Drive Properties** or **Flash Chip Properties**.

imware Tool 32 DVDKey 32 MTK Flash 32 Hitac	hi GDR3120
I/O Port DxE800  ▼ Port Properties I/O Address: 0xE800 Type: SATA Channel: Primary Postion: Master Device: VIA VT6421 RAID Controller Drive Properties Vendor: Drive in Vendor Mode! Name: F/W Rev: Reserved:	360 Tools           Benq         Sammy         Lite-On Erase           Rash Chip Properties         Vendor ID:         0xC2           Device ID:         0x11         Name:         MXIC(MX25L2005)           Size:         262144 bytes         Type:         Serial flash with status 0x73           Flashing Tasks           Intro / Device ID         Outro / ATA Reset           Flashing Tasks         Intro / Device ID         Outro / ATA Reset
-sending Vendor Intro: rial flash found with Status 0x73 nding Device ID request to port 0xE800 nufacturer ID: 0xC2 vice ID: 0x11 ash Name: MXIC(MX25L2005) ash Size: 262144 bytes	

Once the drive is in Vendor Mode, you can proceed with Reading the Drives Firmware.

**CLICK HERE TO PROCEED** 

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# <u>DeviceID Unlock / Vcc Trick (VIA/Nforce only) Stock + Modified Drives (inc</u> <u>iXtreme 1.5+).</u>

This method has only really been tested on VIA (no drivers, or 530c drivers) and Nforce Chipsets, although there is no harm in trying on others, this method works on Hacked and Stock Drives.

#### Load JungleFlasher, and select MTKFlash32 tab.

Firmware Tool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120	
------------------	-----------	--------------	-----------------	--

Then, select correct I/O Port by verifying PBDS VAD6038 shows in the Drive Properties and click Intro / Device ID.

Firmware Tool 32 DVDKey 32 MTK Flash 32 Hitac	shi GDR3120
FO - Drive could also be 62430C nich has diff properties	360 Tools Benq UnLock UnLock Lite-On Erase
Vendor: SATA Name: DVD-ROM FAV Rev: 6243 Reserved: 0C A Drive Properties	Flash Chip Properties Vendor ID: Device ID: Name: Size: Type:
Vendor: PBDS Name: VAD6038-64930C F/W/Rev: Reserved:	Flashing Tasks       Intro / Device ID       Outro / ATA Reset       Read       Erase       Write

JungleFlasher will prompt you with instructions.



Click Yes the Running Log will display something similar to this.

Sending Vendor Intro to port 0xCF00 Invalid Status Re-sending Vendor Intro: . . . . . . . . . . . . . .

When ...... are appearing, do as previously instructed by JungleFlasher. Power off the drive, then, within 1 second, power it back on.

The drive should be in Vendor Mode (0x73) now and return good flash chip properties, you can check in the **Running Log** or **Flash Chip Properties,** Drive properties should display "**Drive in Vendor Mode!**".

mware Tool 32 DVDKey 32 MTK Flash 32 Hitac	hi GDR3120
I/O Port   DxE800   Port Properties   I/O Address:   DxE800   Type:   SATA   Channel:   Primary   Postion:   Master   Device:   VIA VT6421 RAID Controller   Drive Properties Vendor: Drive in Vendor Mode! Name: F/W Rev: Reserved:	360 Tools           Benq         Sammy         Lite-On Erase           Rash Chip Properties         Vendor ID:         0xC2           Device ID:         0x11         Name:         MXIC(MX25L2005)           Size:         262144 bytes         Type:         Serial flash with status 0x73           Rashing Tasks           Intro / Device ID         Outro / ATA Reset           Intro / Device ID         Outro / ATA Reset
-sending Vendor Intro: rial flash found with Status 0x73 nding Device ID request to port 0xE800 nufacturer ID: 0xC2 vice ID: 0x11 ash Name: MXIC(MX25L2005) ash Size: 262144 bytes	

## **CLICK HERE TO PROCEED**

lf it didn't work – read on

## Alternate method if you are struggling with the above!

Load JungleFlasher, and select **MTKFlash32** tab.

Firmware Tool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120	

# Then, select correct I/O Port by verifying PBDS VAD6038 shows in the Drive Properties and click Intro / Device ID.

Firmware Tool 32 DVDKey 32 MTK Flash 32	Hitachi GDR3120
VO Port	activate.iso 360 Tools
0xE800 -	
Port Properties	Beng Sammy UnLock UnLock Lite-On Erase
I/O Address: 0xE800	
Type: SATA	Flash Chip Properties
Channel: Primary	Vendor ID:
Postion: Master	Device ID:
Device: VIA VT6421 RAID Controller	Name:
	Size:
Drive Propert <mark>es</mark>	Туре:
Vendor: PBDS	
Name: VAD6038-64930C	Flashing Tasks
F/W Rev:	Intro / Device ID Outro / ATA Reset
Reserved:	Read Erase Write

JungleFlasher will prompt you with instructions.



Now turn **OFF** the power to the drive!

Click Yes, the Running Log will display something similar to this.

```
Sending Vendor Intro to port 0xCF00
Invalid Status
Re-sending Vendor Intro:
.....
```

While ...... are appearing,

turn **ON** the power to the drive

The drive should be in Vendor Mode (0x73) now and return good flash chip properties, you can check in the **Running Log** or **Flash Chip Properties**, Drive properties should display "**Drive in Vendor Mode!**".



#### **CLICK HERE TO PROCEED**

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# Reading the Firmware from the drive.

Now, we would like to read the firmware from the drive first, so select read.

Vendor: PBDS	Flashing Tasks
Name: VAD6038-64930C	Intro / Device ID Outro / ATA Reset
F/W Rev:	Inito 7 Device ID
Reserved:	Read Erase Write

Check the **Running Log** and you will see it reading the firmware from the drive.

Reading	Bank	0:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Reading	Bank	1:		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Reading	Bank	2:	-															
1																		

Once the firmware has been read JungleFlasher will prompt you to save the firmware. Name it what you wish and select directory path of your choice and click **Save.** 

ave As		-	Manual Acco			×
30 - 1 × DA	ATA (D:) 🕨 Orig	ginal_Firmwa	res 👻	<b>↓</b> Search	t)	Q
🆣 Organize 👻 🏭	Views 👻 📑	New Folder	-			0
Favorite Links		Name	Date modif	Туре	Size	»
Documents More »			No item	s match you	r search.	
Folders	~					
<ul> <li>older tuts</li> <li>Original_F</li> <li>Xbox Zip F</li> <li>CDM 2.04.</li> <li>portio32_1</li> <li>portio32_1</li> <li>DVD RW Driv</li> <li>Compact FI.</li> <li>Combo Soc</li> <li>SD_SD/MMC (H-</li> </ul>	Files 16 WHQL C 4.zip ve (E:) ash (F:) ket (G:)					
File <u>n</u> ame:	BENQ-OFW.bi	n				<b>*</b> ]
Save as <u>t</u> ype:	Firmware Imag	es (*.bin)				•
🔿 Hide Folders					<u>S</u> ave	Cancel

Once saved, JungleFlasher will then prompt you asking if you would like to auto-load iXtreme for BenQ Drives. You must have installed the **JungleFlasher Firmware Pack** into the same directory as JungleFlasher.exe if you wish to benefit from this feature.



Click **Yes** to auto load iXtreme (from the firmware pack) for BenQ into the **Target Buffer**, JungleFlasher will also load your previously dumped **BenQ-OFW.bin** as **Source Firmware.** Then, copy data from **Source to Target automatically.** 

# Just verify **Source data** reports as it should, OSIG of **VAD 6038** with a key with no multiple **FF/00/77 bytes.**

Now, verify **unique Source Data** matches that in **Target Buffer** and click save to file if you wish to backup your Hacked firmware.

Source Inquiry Identify Drive Serial	Hitachi GDR3120	User Guide
Vendor Model Rev Firmware Type Beng VAD6038 64930C Stock OSIG: PBDS VAD6038-64930C	DVD Key @ 0xA030 A858D16A78F40CEF9E016C83F8E2C80A	Save Drive Key Open Source Firmware
Advanced View     Spoof Source Target Inquiry Identify Drive Serial	e to Target Donate	Open Target Firmware
D:\JFBeta.0.1.66(50S)\firmware\ix16-benq.bin Vendor Model Rev Firmware Type Beng VAD6038 64930C iXtreme v1.60-12x- FINAL-VAD6038	DVD Key @ 0xE030 A858D16A78F40CEF9E016C83F8E2C80A	Manual Spoofing
OSIG: PBDS VAD6038-64930C rmware is Beng OSIG: PBDS VAD6038-64 rmware type is: iXtreme v1.60-12x-FINAI cofing Target D Key copied to target quiry strings identical		Save to File
quiry strings identical entify strings identical FF00 area copied for Benq to Benq y database updated		

You can now save the Target Buffer to file by clicking Save to File.

Target Inquiry Identify Drive Serial	Open Target Firmware
D:\JFBeta.0.1.66(50S)\firmware\ix16-benq.bin	
Vendor Model Rev Firmware Type DVD Key @ 0xE030	Manual Spoofing
Beng VAD6038 64930C iXtreme v1.60-12x- FINAL-VAD6038 A858D16A78F40CEF9E016C83F8E2C80A	
OSIG: PBDS VAD6038-64930C	Save to File

# Writing Firmware to the drive.

To write the firmware, as long as drive is still unlocked (Vendor Mode) we just **click MTKFlash 32** tab.



Verfify you have good flash chip properties still.

—Flash Chip Pro	operties
Vendor ID:	0xC2
Device ID:	0x11
Name:	MXIC(MX25L2005)
Size:	262144 bytes
Туре:	Serial flash with status 0x73

#### Then, click Write.

Fla	sh Chip Pro	operties
V	endor ID:	0xC2
D	evice ID:	0x11
N	ame:	MXIC(MX25L2005)
S	ize:	262144 bytes
T,	ype:	Serial flash with status 0x73
Fla	shing Task	\$
	Intro / D	evice ID Outro / ATA Reset
	Read	Erase Write

Write Command, will send Chip Erase prior to writing and then proceed to write the 4 banks of the firmware (banks 0/1/2/3).

A series of 16 .....'s is JungleFlasher writing the 16 sectors of each bank (4 banks, 0/1/2/3).

After writing all 64 sectors, signaled by 64 dots (16 dots across 4 banks) JungleFlasher will verify what it wrote by reading back and comparing against the Target Buffer what we really want to see is **Write Verified OK!** 

Flash Verification Test !	
Reading Bank 0:	
Reading Bank 1:	
Reading Bank 2:	
Reading Bank 3:	
Write verified OK !	

# Now send an Outro to the drive.

F	lashing Tasks –						
	Intro / Devic	:e ID		Ou	itro /	ATA Reset	
	Read	E	ras	е		Write	
							_

This will release a drive from **Vendor Mode** and send **ATA Reset** to the Drive. It then sends an inquiry command to the drive.

This will save you power cycling the drive and then changing port away and change it back again, with the click of a button, drive will 'reset' itself and JungleFlasher will send an inquiry command to the drive. If successfully flashed the drive should Inquire correctly and display drive properties.

vive Propert	ies	Drive Propertie	89
Vendor:	PBDS	Vendor:	SATA
Name:	VAD6038-64930C	Name:	DVD-ROM
F/W Rev:		F/W Rev:	6243
Reserved:		Reserved:	0CA

Which drive properties you have depends on BenQ FW version!

Power off – connect back to console and test!

**CLICK HERE TO RETURN TO START OF TUTORIAL** 

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# Hitachi GDR-3120L.

## Rom Versions 32/36/40/46/47/58/59/78/79.

## Overview.

Hitachi drives are completely unique in the way and which they are modded. We modify Hitachis on a sector by sector basis. For this to happen the drive must be in Mode-B (mode-b allows windows to recognise the drive!) there are several transfer methods available (some only to certain revisions) But **RAM Upload** can be used for all drives!

JungleFlasher can be used over Windows API or PortIO.



WinAPI should used where possible, although <u>WinAPI requires the drive to be assigned a drive</u> <u>letter</u>, this <u>isnt</u> possible with a VIA 6421 with Drivers Removed.

**PortIO** functionality was added for VIA 6421 Sata users who removed drivers to hack the Lite-On drives without freezing issues.

To enable PortIO usage, check VIA Ports Only under DVDKey 32 tab.

VIA ports Only 🔽

VIA users with no drivers, must utilise the PortIO option

you will not be assigned a drive letter in windows with no drivers!!! – You can still dump/flash the drive – it just will NOT SHOW UP IN THE DRIVE LIST! To enable PortIO usage, check VIA Ports Only under DVDKey32 tab

(vou must have drivers correctly removed!)

Regardless of option chosen, the Hitachi Drive must still be in **ModeB**, this is essential to be assigned a drive letter in Windows, for using **WinAPI**, but, also vital for **PortIO** users as most dump and flash commands require it.

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Windows API Users, after setting ModeB, you must wait for hardware changes to be detected (15 secs) If nothing is detected, click "Refresh"

<u>Sometimes the drive will not automatically show up – if this is the case (WinAPI users only) open device manager and "scan for changes"</u>

JungleFlasher uses a unique way of calculating the checksum of the firmware and JungleFlasher will also take over from the user as soon as possible to prevent user error, its not necessary to dump the drive to patch the firmware, JungleFlasher will dump before you try to do anything to the drive.

JungleFlasher also incorporates a "Stability Test" prior to modifying the drive, as safety is paramount.

# **CLICK TO CONTINUE**



## Setting ModeB

Hook up your Hitachi Drive via sata, power it on, then open JungleFlasher and you will be presented with the welcome screen

#### Then, click the Hitachi GDR-3120 tab



You will be presented with the dedicated **Hitachi tab** shown below (or similar to)

Port Properties	Use Win API ()	Drive
0x0170		F:\ [PIONEER DVD-RW_DVR-115D1.13]
Vendor: HL-DT-ST Name: DVD-ROM 6DR3120L f/w rev: 0059 reserved: 08MA8 06/01/24 Send Mode-8 Open Close 79 Unlock automatic // Insett the 79 Unlock Audio CD.	Use Port 10 () Drive Revision 40 / 32 () 36 () 47 / 46 () 59 / 58 () 79 / 78 () Transfer Method Classic () Mode Select () RAM Upload ()	Refresh List Query Remove  Flashing Options  Flash Key Sector C  Flash Spool Data  Flash Streme  Set Checksum  Free Flash
Play 73 Unlock ngleFlasher 0.1.55 Beta ssion Started Tue Mar 17 15:3 is is a 32 bit process runnir und 10 I/O Ports. und 1 Com Ports. und 1 Com Ports. und 2 CO/DVD drives.	Ram Poke ()	CPUs

Note the **Hitachi Drive** inquires on my **I/O Port** and that **PortIO** is disabled (using **non-VIA** chipset)

ve Revision 40 / 32 O	[PIONEER DVD-RW D	VR-115D1.13]
40 / 32 0	Refresh List	luery Remove
36 () 47 / 46 () 59 / 58 (•) 79 / 78 (•) anster Method Classic (•) Mode Select (•)	Ing Options Dump Drive  Flash Key Sector Flash Spoof Data Flash Mireme Flash Mireme Set Checksum Free Flash Free Flash The Source	Sector List
	59 / 58 79 / 78 ansfer Method Classic Mode Select RAM Upload	47 / 46 O 59 / 58 O 79 / 78 O anster Method Classic O Mode Select O RAM Upload O Ram Poke O

The drive needs to inquire on **I/O** port for **Raw ModeB Commands to work** (this applies to spoofed drives also)

Once it inquires, Click **send ModeB**, you will be presented with the following message, its advised you do as it states as the **ModeB button on Connectivity Kit, can cause issues** 



Once done, click **Ok** 

The drive should now report as in ModeB



Once **ModeB** is set, if using **WinAPI**, JungleFlasher will scan for hardware changes automatically after 15 seconds (if using vista/win 7 ensure you run jungleflasher as administrator) if drive does not show up then scan for changes in device manager!

WinAPI users should seen similar to this under the 'Drive' section

Drive		
H:\[HL-DT-STDV	D-ROM GDR3120L0	05] 🔹
Refresh List	Query	Remove

If not, click Refresh List

JungleFlasher WILL NOT scan for Hardware Changes after setting ModeB for PortIO users. The Drive will not appear in drive list on right hand side!

Instead, the tasks are carried out, as long as the drive Inquires on the I / O Port

Port Prop	erties
0×C	F00 💌
Vendor:	HL-DT-ST
Name:	DVD-ROM GDR3120L
f/wirev:	0059
reserved:	OBMAB 06/01/24

**BACK TO FLOWCHART!** 

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# Mode B on an already flashed drive

Mode B can be easily achieved on a pre-flashed Hitachi

# Ensure SATA cable connected to pc!

This is done by powering **on** the drive with the tray fully open

# To do this using a xbox 360 console for powering the drive;

- 1. Eject the drive
- 2. Pull the power cable from the rear of the DVD-Rom
- 3. Plug cable back in (ensuring correct orientation of plug)
  - 4. The drive tray will close (if pre-flashed)
- 5. Check that it takes 2 presses to eject and 2 or 3 to close.

# <u>Your drive is now in Mode B</u>

# Using a connectivity kit / power dongle

- 1. Eject drive using button on kit
- 2. Switch power off, then on again
- 3. The drive tray will close (if pre-flashed)
- 4. Check that it takes 2 presses to eject and 2 or 3 to close.

5. Your drive is now in Mode B

Start Jungleflasher – click on Hitachi Tab!, ensure correct I/O port

If using WinAPI – drive should show in drive list on right hand side!

If using PortIO option – drive should be visible in port on left hand side!

# **CONTINUE ON FLOWCHART**

# JungleUSB Drivers and USmodeB (XP ONLY)

JungleUSB is a hacked USB Storage driver that enables windows to see a Mode A drive over USB, this enables USmodeB command to be sent and the drive.

### Installing JungleUSB Driver

(can be downloaded from the usual places).

First you need to connect the drive to your PC with a SATA-USB Bridge Adapter

Windows will automatically install the device as

#### USB Mass Storage Device

You will need to update driver and install JungleUSB

Open Device manager and Find USB Mass Storage Device under Universal Serial Bus Controllers. Right click on it and Update Driver.



#### Select No, not this time. Then click Next



#### Select Install from specific location and click Next



Select Don't search I will choose the driver to install and click Next.

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	e choose your search and installation options.
0	Search for the best driver in these locations.
	Use the check boxes below to limit or expand the default search, which includes local paths and removable media. The best driver found will be installed.
	☑ Search removable media (floppy, CD-ROM)
	Include this location in the search
	C:\Documents and Settings\Bradley\Desktop\Jungl 🚽 🛛 Browse
۲	Don't search. I will choose the driver to install
	Choose this option to select the device driver from a list. Windows does not guarantee t the driver you choose will be the best match for your hardware.

### Click Have Disk

Sele	ct the device driver you want to install for this hardware.
¢	Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.
Show Mode	
	B Mass Storage Device ] ngleUSB 360 Mass Storage Driver
	<u>H</u> ave Disk

Now click **Browse** and Navigate to **JungleUSB.inf** (can be downloaded from the usual places).

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## Select it and click Open. Then click OK

stall Fro	om Disk	X
4	Insert the manufacturer's installation disk, and then make sure that the correct drive is selected below.	OK Cancel
	Copy manufacturer's files from:	

Now click next and the Driver should install.

ardware Update Wizard	
Select the device driver you want to ins	stall for this hardware.
Select the manufacturer and model of yo have a disk that contains the driver you	ur hardware device and then click Next. If you want to install, click Have Disk.
Show <u>c</u> ompatible hardware	
Model	
JungleUSB 360 Mass Storage Driver	
This driver is not digitally signed! <u>Tell me why driver signing is important</u>	
	< <u>B</u> ack Next> Cancel

Click finish and Return to Device manager.

Hardware Update Wizard	
	Completing the Hardware Update Wizard The wizard has finished installing the software for: JungleUSB 360 Mass Storage Driver
	Click Finish to close the wizard.
	Kara Kara Kara Kara Kara Kara Kara Kara

If all went well you should now have JungleUSB 360 Mass Storage Driver listed under Universal Serial Bus Controllers and HL-DT-ST DVD-ROM GDR3120 USB Device listed under DVD/CD ROM drives.



Now Start JungleFlasher and select the Hitachi GDR3120 tab, Click the USmodeB button

Port Properties           0xDC00           Vendor:         No Drive Detected!	Use Win API @ Use Port IO () Drive Revision	Drive Refresh Quesy	Remove USmodeB
Name: f/w rev:	40 / 32 🖱 36 🗇	Flashing Options Dump Drive @	Sector List
Send Moc Open 79 Unlock	You will need to use the Ju	your Hitachi Drive and send USr ingleUSB driver for this to work. to the USB port with the drive c econds, then press OK.	
Play	OK Ram Poke 🔿	Cancel	
mgleFlasher 0.1.59 Beta	******		••••••

JungleFlasher will scan for any 360 Hitachi Drives connected via USB and send Mode-b Command to that drive. The Drive should now be selectable in the drop down box.

Port Properties	Use Win APL @	Drive	
0x0800   Vendor. No Drive Detected Name: f/w rev: reserved	Use Win API (2) Use Part (2) (2) Drive Revision 40 / 32 (2) 36 (2) 47 / 46 (2) 59 / 58 (2)	Drive G-\ (HL-DT-STDVD-ROM G Refresh Query Flashing Options Dump Drive @ Flash Key Sector () Flash Spool Data ()	DR3120L0059)   Remove USmodeB Sector List
Send Mode B Open Close 78 Unlock automatic V Insert the 79 Unlock Audio CD, Play 79 Unlock	79 / 78 C	Flash Whene C Restore Firmware C Set Checksum C Fire Flash C Read to Source	
ound 6 windows drives. ound 2 CD/DVD drives. :\ [NL-57-3TDUD-pom Gp31200 000: 05 80 00 32 55 00 00 00 010: 44 56 44 2D 52 49 40 2 020: 30 30 35 39 30 42 4D 41 030: 31 2F 32 34 20 20 20 00	0 - 48 4C 2D 44 54 0 - 47 44 52 33 31 1 - 42 20 20 20 30	2D 53 5421HL-DT- 32 30 4C DVD-R0M GDR312	ST OL

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# Dumping the Firmware from the drive (Pre v78)

Older ROM Versions of the drive, v32, v36, v40, v46, v47, v58 and v59 are dumped using **Classic Mode, Mode Select, or RAM upload.** For the purpose of the tutorial, I'll use **Mode Select** 

# \*\* Dumping the firmware from a Drive Using 'Classic Mode' will be fooled by firmware stealth, this means, it WILL report as stock even though it isnt. \*\*

As the drive is in **ModeB** already, we simply ensure drive revision matches that of the drive

Port Properties	Use Win API 💿	Drive	
0x0170 🐱	Use Port 10 〇	H:\[HL-DT-STDVD-ROM GDR3	120L0059j 🛛 🔽
Vendor: HL-DT-ST	Drive Revision	Refresh List Query	Remove
Name: DVD-ROM GDR3120L	40 / 32 🔿		
f/w.rev: 0059	36 🔾	Flashing Options Dump Drive ()	Sector List
reserved: OBMAB 06/01/24	47 / 46 〇	Flash Key Sector 🔿	
Send Mode-B	79 / 78 〇	Flash Spoof Data 🔿	
Open Close	Transfer Method Classic ()	Restore Firmware 🔿	
79 Unlock automatic Image Insert the 79 Unlock Audio CD.	Mode Select	Set Checksum 🔿	
Play 79 Unlock	RAM Upload 🔿 Plam Poke 🔿	Read to Source	<u>,</u>
00: 05 80 00 32 5B 00 00 00 10: 44 56 44 2D 52 4F 4D 20 20: 30 30 35 39 de-B Done! anning for hardware change and 7 windows drives. and 3 CD/DVD drives.	0 - 47 44 52 33 31	2D 53 542[HL-DT-ST 32 30 4C DVD-ROM GDR3120L 0059	

Select Dump Drive and Mode Select

Port Properties	Use Win API 💿	Drive.	
0x0170	Use Port ID	H:\pt.DT-STDVD-R0M GDR3120L0059]	× 💌
Vendor HL-DT-ST	Drive Revision	Refresh List Query	Remove
Name: DVD-ROM GDR3120L	40 / 32 🔿		
1/w.rev: 0059	360	Flashing Options Sector List	l
received 08MA8 06/01/24	47 / 46 🔘	Plath Key Sector O	
HEIGHTER GERME GERVINE	59 / 58 💽	Flash Spool Data	
Send Mode-B	79/78		
Open Close	Transfer Method	Flash Mireme O	
	Classic 🔿	Restore Firmware O	
79 Unlock automatic 🗹	Mode Select ③	Set Checksum O	
Inset the 79 Unlock Audio CD.	RAM Upload O	Free Flash C	
Play 79 Unlock	Ran Pater (1)	Read to Source	
00: 05 80 00 32 58 00 00 00	) - 48 4C 2D 44 54	2D 53 542[HL-DT-ST	
10: 44 56 44 25 52 4F 4D 20 20: 30 30 35 39	0 - 47 44 52 33 31	32 30 4C DVD-ROM GDR3120L 0059	
de-B Done!			
anning for hardware change	F.		
und 7 windows drives.			

#### Then, click Read to Source



#### You should see something similar to below



Once firmware is read, JungleFlasher will prompt you to save it.



Upon saving the Firmware from the Drive, you can verify the key appears good and it reports as **GDR 3120 (ROM Ver)** 

Source Inquiry Iden	tily Drive Serial		
D: UF TUT VHR OFW	/.bin		
Vendor Model	Rev Firmware Type	DVD Key @ 0x4F00 0x67178889	Save Drive Ke

The **Running Log** should also show this data.

FLASH iX FIRMWARE - CLICK HERE

## UNLOCKING v79

## FIRST Ensure ModeB is set

## <u>V79 ONLY</u>

The Hitachi v79 requires 'unlocking' via Audio CD which can be downloaded here

Burn the .bin, using the cue sheet in <u>IMGBurn</u> (done by right clicking .cue file and selecting "burn with imgburn") and write to CD-R

Insert the disc into the Hitachi v79, wait for it to spin up (windows media player may try to open! - just close it) then click **79 unlock** 

Port Properties	Use Win API 💿	Drive	
0x0170	Use Poit ID	J:\[HL-DT-STDVD-ROM GDR31	20L0079] 🛛 😽
Vendor: HL-DT-ST Name: DVD-ROM GDR3120L	Drive Revision 40 / 32 🔿	Refresh List Query	Remove Sector List
f/w.rev: 0079 reserved: 08MAB 06/05/25	36 () 47 / 46 () 59 / 58 ()	Flashing Options Dump Drive ④ Flash Key Sector 〇	Sector List
Send Mode-B	79 / 78 ⊙	Flash Spoof Data 🔿 Flash Kitreme 🔿	
79 Unlock automatic V Insert the 79 Unlock Audio CD,	Classic () Mode Select () RAM Upload ()	Restore Firmware O Set Checksum O Free Flash O	
Play 79 Unlock	Flam Poke ()	Read to Source	,
		2D 53 542[HL-DT-ST 32 30 4C DVD-ROM GDR3120L 0079	
<pre>de-B Done! mning for hardware change: md 7 windows drives. md 3 CD/DVD drives.</pre>			

JungleFlasher should display a log similar to the one below.

Found 7 windows drives. Found 3 CD/DVD drives.

Playing 79Unlock Audio CD Pausing 79Unlock Audio CD, after 750mS Ejecting 79Unlock Audio CD Setting bit 3 @ 0x5BD Executing code in Ram Done!

The Drive is now unlocked!

^

# UNLOCKED - PROCEED! NOW TREAT IT AS PER A 78 – CONTINUE FROM POINT IN FLOWCHART YOU WERE AT -CLICK HERE

# <u>V78 / V79</u>

Now, onto dumping the drive. With the V79 **unlocked**, or the v78 in **ModeB** We can now dump the drive using **RAM Upload** method

Use Win API 💿	Drive
Drive Revision	Refresh List Query Remove
36 (	Flashing Options Sector List
59 / 58 ()	Flash Key Sector 🔿 Flash Spoof Data 🔿
Transfer Method	Flash Xtreme 🔿 Restore Firmware 🔿
Mode Select O	Set Checksum O Free Flash
Ram Poke	Read to Source

#### So, click Read to Source



JungleFlasher will now dump the drive using RAM Upload Method



Once it has read the Firmware it will prompt you to save the Firmware.

Save As					? 🛛
Save in:	🗀 HitaCHI		•	+ 🗈 💣 🎟+	
My Recent Documents Desktop					
My Documents					
My Computer					
My Network	File name:	Hit-OFW.bin		Ţ	Save
Places	Save as type:	Firmware Images (*.bin)			Cancel

Once saved, it will open it as Source in FirmwareTool32.

Vendor	Model	Rev	Firmware Type	DVD Key @	0x4D20	0xAC7F040C
Hitachi	GDR3120L	0079	Stock	26DF74D5AE	71E43323D83	BCDDB7339B8
OSIG:	HL-DT-STDV	D-ROM	GDR3120L0079			

FLASH iX – CLICK HERE TO PROCEED!

## Flashing iXtreme to a stock Hitachi Drive

Flashing iXtreme to a Hitachi has taken a huge step in development with JungleFlasher's methods.

JungleFlasher **WILL NOT** allow you to flash iXtreme over iXtreme, it will detect the checksum and detect its hacked by checksum and force restore first.

Typical error if user tries:



So, onto flashing iXtreme

You will need the JungleFlasher Firmware Pack for this to work.

With the drive in **Mode-B** (and Unlocked if a v79) simply select **Flash iXtreme** from the **Flashing Options** list

Port Properties	Use Win API ()	Drive	
0x0170	The Part ID	J:\ PR-DT-STOVD-ROM GDF	331206,0079]
Vendox HL-DT-ST Name: DVD-R0M GDR3120L I/w rev: 0079 reserved 08MA8_06/05/25 Send Mode-8 Open Close 79 Unlock automatic Inset the 79 Unlock Audio CD. Plan 79 Unlock	Drive Revision 40 / 32 () 36 () 47 / 45 () 59 / 58 () 79 / 78 ⊙ Transfer Method Classer () Mode Searct () RAM Upload () RAM Data	Refresh List Que Flashing Options Dump Drive () Flash Key Sector () Flash Spool Data () Flash Spool Data () Flash Neterne () Set Ohecksum () Flash Hacked I/W	y Remove
aying 750nlock Audio CD iled to Play 750nlock Audio aying 750nlock Audio CD using 750nlock Audio CD, al ecting 750nlock Audio CD tring bat 3 8 0x58D ecuting code in Sam ne!			

Then, click Flash Hacked f/w

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Flashing Options
Dump Drive C
Flash Key Sector 🔘
Flash Spoof Data 🔿
Flash Xtreme 📀
Restore Firmware 🔿
Set Checksum 🔿
Free Flash C
Flash Hacked f/w

JungleFlasher will then dump the drive so it can compare sectors that will need to be written.



It will prompt you to save it. It's **heavily advised you do** just in case.

ave As				2
Save in:	😂 Hitachi		💌 O 🕫 🛤 🖽 •	
B				
My Recent Documents				
Desktop				
My Documents				
1				
My Computer				
	File name:	Hit-OFW.bin	~	Save
My Network	Save as type:	Firmware Images (*.bin)	~	Cancel

JungleFlasher will seemingly take control, don't worry, this is normal.

If you view the log, you see that JungleFlasher has automatically loaded iXtreme 1.51, copied all your data (key sector 90004000 isn't touched unless using flash keys).into iXtreme, and flashed a test sector for stability.

The stability test should return as stable, if so, you will see this message.

Out170 Use Win API O	UN HLDT-STDVD-ROM GDR	3120L0079j 🥪
Vendur         HL-D1-ST         Dime Revision           Name         DVD ROM GDR3120L         481/32 O           //wmvc         0079         36 O           mserved         0BMAB         05/05/25         47 / 45 O	Releash List Que Flashing Dysons Durip Drive () Flash Key Sector ()	y Remove
Dam Chun	Addity test reports stable. It to Cantinue 7 No Flash Hacked I/W	0x9000A000 0x9001C000 0x90025000 0x90020000 0x90034000 0x90035000
reware type is: iXtrems:1.81:979-12s Sector Differences Found ash Stability Test sching Sector 90037000 aping Sector 90037000 ad back & compare completed, Flashing Stable pairing Test Sector. ashing Sector 90037000 ne !		

If you wish to proceed, click Yes

Again, JungleFlasher will take over and you will see it flashing the sectors like below:



Once finished, JungleFlasher will verify the firmware written to the drive and report back



Power Off – Disconnect drive, connect sata back to console and test!

YOU ARE FINISHED – RETURN TO START OF TUTORIAL

## **Restoring from Hacked Firmware**

As the title suggests, it is simply a reversal of flashing the Drive with Hacked Firmware. This also applies to Hitachi Drives Spoofed as other Drive types / Revisions.

Again, JungleFlasher will depend on the JungleFlasher Firmware Pack being in the same directory as JungleFlasher.exe

With the Drive in <u>Mode-B</u> (and <u>unlocked</u> if it's a v79 ) simply select **Restore Firmware** from the **Flashing Options** list







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JungleFlasher will dump the Hacked Firmware from the drive, check key location and compare to the corresponding Original Firmware in the **Firmware Pack** 

#### JungleFlasher will take control throughout this.

Found 3 CD/DVD drives. Playing 79Unlock Audio CD Pausing 79Unlock Audio CD, after 750mS Bjecting 79Unlock Audio CD Setting bit 3 @ 0x5BD Executing code in Ram Done! Restoring Stock f/w to Hitachi 0078/0079 by Ram Upload Method via WIN32 API Dumping Flash:.....

After it has dumped and compared the firmware, it will flash a test sector. If this flashes ok, it will report it has passed the **Stability Test** 

FirmwareTool 32 DVDKey 32	MTK Flash 32 Hitachi 0	6DR3120	
Port Properties 0x0170 Vendor: HL-DT-ST Name: DVD-ROM GDR3120L 1/w rev: 0079 reserved: 08MAB_06/05/25 Send Mode-8 Open Close 79 Unlock automatic V Insert the 79 Unlock Audio CD.		ability test reports stable.	
Play 79 Unlock Pirmware type is: Stock 8 Sector Differences Found Plash Stability Test Plashing Sector 9003F000 Pumping Sector 9003F000 Papairing Test Sector. Plashing Sector 9003F000 Done !	ed, Flashing Stable	Restore to Stock	

#### It should show as below

Click Yes to proceed

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Again, JungleFlasher will take control and flash the sectors required

Port Properties	Use Win API 💿	Drive	
0ы0170 👻	Use Pot ID	J:\ [HL-DT-STDVD-ROM GC	DR3120L0079j 🛛 🛃
Vendor: HL-DT-ST Name: DVD-ROM GDR3120L I/w.rev: 0079	Drive Revision 40 / 32 () 36 () 47 / 46 ()	Refresh List Qu Flashing Options Dump Drive ()	Sector List
reserved: 08MAB 06/05/25	F0.1500	Flash Key Sector 🔘	0x9000A000 0x9001C000 0x90026000
Send Mode-B		Set, this is normal for a modded dri id be set for a full restore!	0420000000
(i)	However Checksum sho	Set, this is normal for a modded dri ald be set for a full restore! DK Restore to Stock	0x90034000
Open Clo	However Checksum shot	uid be set for a full restore!	ve. 0x90034000 0x90035000
Open Co 79 Unlock auto Inset the 79 Unlock Audo LU. Play 79 Unlock site verify test mping Flash: ad back 4 compare complete	However Checksum shot	uid be set for a full restore!	0x90034000 0x90035000

#### It will then check the checksum and prompt you to fix the Checksum.

#### Clicking Ok will fix Checksum for you

#### Check Log for confirmation

Setting Checksum!

Calculated Checksum 0x671788B9 Actual Checksum 0x00000000 Flashing Sector 9003E000 Dumping Sector 9003E000:... Read back 4 compare completed, Write Verified! Flash Checksum Complete !

**PROCEED TO FLASH iX FW** 

# Spoofing a Hitachi Drive to report as a Different Drive Revision / Version

If you wish to flash a Hitachi Drive using JungleFlasher and change the **Drive String ID**, you should follow the procedure of:

- 1. <u>Restore to Stock if necessary</u>
- 2. Flash iXtreme to the Drive

# IF YOU HAVE FOLLOWED THE FLOWCHART YOU SHOULD BE STARTING HERE!

3. Flash Key Sector

4. Flash Spoof Data

# WARNING – YOU MUST

# Flash iXtreme to the drive first before flashing key, Then flashing ID Strings spoof data!!

# Flashing Key Sector (90004000)

As usual you will need to first get the Drive into <u>Mode-B</u> (v79 unlocked) and assigned a drive letter (VIA / No Drivers, utilise PortIO)

The drive should, as above, be <u>flashed with iXtreme</u> to start

Open JungleFlasher and proceed to the Hitachi GDR3120L tab

FammerTox22 DictAry 32 M Par Properties Ind175 Vender Hc.01.61 Name Dict-RDM GDR:D25. Mare 0000 exemed IDNM Sk/01/24 Sand Madell Data 75 Unant exemat (2) bast for 71 Unant exemat (2) bast for 71 Unant	th flack 22 miles 42 Unit VeriAPT(3) Unit VeriAPT(3) A1/32(3) A2/44(3) A2/4(3) A2/4(3) A2/4(3) A2/4(3) A2/4(3) A2/4(3) A2/4(3) A2/4(3) A2/	HILDI STOVO ROM OD	RCI:20.009
Flashing Joshes 20023000 Flashing Sector 2003000 Flashing Sector 2003000 Flashing Sector 2003000 Jankag Sector 2003000 Jank 1 Yelts verify test. Doglag Zlashi Doak Jack a umgare coglate Flash, Coglate 1	***************	being to drive	

Ensure correct **Drive Revision** is selected; choose chosen transfer method (Pre78 use **Mode Select** or **RAM Upload**, v78/79 users **can only use RAM Upload**)

Put Properties (540170)	Uur Win API 💮	Deel H \gHLDT-STDVD-ROM 60	040128.0059j
Verdar: HL 01-51 Name: DVD-RDM GDR3120L I/vere: 0059 maximut: 00M48: 06/01/24 Send ModeR Qeen Down 710Mack automatic 9	Deve Researce 40/32() 36() 47/46() 59/59() 79/79() Transfer Nethol Classes Mode Sales ()	Referen Luer Gu Durap Drive () Parch Key Sector (2) Flanh Sport Date () Flanh Sport Date () Flanh Shame () Restore Farmare () Set Decksam()	Recove
Flaching Tector PODIBOO Flaching Tector PODIBOO Flaching Sector PODIBOO Flaching Tector PODIBOO	Write Verified'		

Then, select Flash Key Sector

Then, click Flash Keys



# JungleFlasher will then automatically read the drive and prompt you to save it, it is advised that you do!

Upon saving, JungleFlasher will present you with a Spoof section; note that only the key area is accessible, this is to prevent you spoofing before flashing Keys.

Here, you can manually load a Key.bin from a previous dump, (κey.bin can be saved by loading donor drives firmware in FirmwareTool32 as Source and Clicking Save Drive Key.)

You can also manually type it in, but it is advisable that you allow the software do it as typing errors could result in a bad key.

Set Hitachi Drive Key							
Drive Key Load key.bin D86901C57D229A01816852592DDCB544 Check							
Lite-On Barcode Load inquiry.bin D608CG833907010F0 Check							
OSIG: Current: HL-DT-STDVD-ROM GDR3120L0059 OK Spoofed As:							
Leave As Is - Key Only Cancel							

Simply click Load key.bin and navigate to your desired Key.bin and click Open

FirmwareTool 32	2 DVDKey 32	MTK Flash 32	HRachi G	SDR3120			
Port Properties 0x0170	~		in API 💿	Drive H.\pHLOT-STDV	ROM GDP	3120L0059	~
Vendor. HL Name: DV Mwsev: 00	Set Hitschi Dri Dive Key Load keyb	ve Kay		01816852592DDCB	544	Check.	move
reserved OE	Ute On Bacor Open	Se		-121			? 🗙
79 Unick	My Recent Documents Desktop	Adumny.bin A Hashi-OPW Identify.bin Display.bin	ety.bin	M	03		
ading Alt aquiry str Sentify st D key fou reware is reware ty	My Documents My Conputer	File name:	Keybin			• [	Open
	My Network	File name Files of type:	Key bin Key tile (*	bn)		× [	Open Cancel

Verify key is the one you required and looks unique, then, click OK

Set Hitachi Drive Key								
Drive Key								
Load key.bin 89C7B3923C6473BBC69E427AA53953DA Check								
D:\Documents and Settings\Oggy\Desktop\Scott S\Skulls\Key.bin								
Lite-On Barcode								
Load inquiry.bin D608CG833907010F0	Check							
Current: HL-DT-STDVD-ROM GDR3120L0059	ок							
Spoofed As:								
Leave As Is - Key Only 🔍	Cancel							

Just like Restore/Flash iXtreme, **JungleFlasher** will flash a test sector and ask if you want to proceed. Page **71** of **134** 

#### Click Yes to Proceed

#### JungleFlasher will then Flash Key Sector (Sector 90004000)

Once written it will re-dump Key Sector and verify it has new key set.


### Flashing Spoof Data / Drive String ID (OSIG)

As with all Hitachi Tasks, you must set <u>Mode-B</u> (and <u>unlocked</u> if v79) first, have a drive letter assigned if using **Win API**, or, PortIO for VIA / No Drivers.

### Ensure Drive is flashed with iXtreme and correct Key prior to spoofing!

Port Properties 0x0170 Vendor: HL-DT-ST Name: DVD-ROM GDR3120L I/w rev: 0059 reserved: 0BMA8: 06/01/24 Send Mode-B Open: Close 79 Unlock automatic Insert the 79 Unlock Audio CD. Plan: 79 Unlock	Use Win API () Use Port 10 () Drive Revision 40 / 32 () 36 () 47 / 46 () 59 / 58 () 79 / 78 () Transler Method Classic () Mode Select () RAM Upload ()	Drive H \ (HL-DT-STDVD-ROM GD Refresh List Que Flashing Options Dump Drive () Flash Key Sector () Flash Spool Data () Flash Moreme () Set Checksum () Flash Hacked I/w	
Tashing Sector 90022000 Tashing Sector 90033000 Tashing Sector 90034000 Tashing Sector 90035000 Fone ! Fice verify test Tashing Flash: Tash Complete !		being to drive	4

Open JungleFlasher and proceed to the Hitachi GDR3120L tab

Ensure correct **Drive Revision** is selected; choose chosen transfer method (Pre78 use **Mode Select** or **RAM Upload**, v78/79 users **can only use RAM Upload**)

Port Properties	Use Win API 💿	Drive	
0x0170 💉	Use Pot ID	H:\[HL-DT-STDVD-ROM GD	R3120L0059]
Vendo: HL-DT-ST Name: DVD-RDM GDR3120L I/w rev: 0059 reserved: 08MA8_06/01/24 Send Mode-8 Open Close 79 Unlock automatic V Inset the 79 Unlock Audio CD, Phy 79 Unlock	Drive Revision 40 / 32 () 36 () 47 / 46 () 59 / 58 () 79 / 78 () Transfer Method Classic () Mode Select () RAM Upload ()	Refresh List Que Flashing Options Dump Drive  Flash Key Sector  Flash Key Sector  Flash Spool Data  Flash Miteme  Restore Firmware  Set Checksum  Flash  Flash D's	NY Remove Sector List Calculated at Run time
Plashing Sector 90028000 Plashing Sector 90033000 Plashing Sector 90034000 Plashing Sector 90035000 Jone ! Frite verify test Pumping Flash: Plash Complete !	Bam Poke ()		

### Then, select Flash Spoof Data

Then, click Flash ID's

Flashing Options
Dump Drive 🚫
Flash Key Sector 🔿
Flash Spoof Data 💿
Flash Xtreme 🔿
Restore Firmware 🔿
Set Checksum 🔿
Free Flash 🔾
Flash ID's

# JungleFlasher will then automatically read the drive and prompt you to save it, it's advised that you do!

Upon saving, JungleFlasher will present you with a Spoof section; note that only the **OSIG (Drive String ID)** area is accessible.

Select the Drive Type / OSIG that you want the Hitachi to report as to the console from the drop down box.

Port Properties	DVDKey 32 MTK Flash 32 Hilachi GDR 3120 Drive	
0x0170	Use Win API  Use Win API  H:\ [HL-DT-STDVD-ROM GDR3120L0059]	~
Vendor: HI Se	et Hitachi ID-Strings	move
Name: D\ f/w.rev: 00	Drive Key Load Key bin 8907839230647388069E427AA53953DA Check	move
reserved: OE		
Se Open	Lite-On Barcode Load inquiry.bin D608C6833907010F0 Check.	
79 Unlock		
79 Unlock Insert the 7 Play	OSIG: Current: HL-DT-STDVD-ROM GDR3120L0059 OK Spoofed As:	
Insert the 7	Current: HL-DT-STDVD-ROM GDR3120L0059 OK	

If choosing to spoof to any other drive **apart from Lite-On PLDS DG-16D2S**, upon selecting **Spoofed OSIG**, simply click ok to Proceed.

et Hitachi ID-Strings
Drive Key Load key.bin B9C7B3923C6473BBC69E427AA53953DA Check
Lite-On Barcode Load inquiry.bin D608CG833907010F0 Check
CoSIG: Current: HL-DT-STDVD-ROM GDR3120L0059 OK Spoofed As: TSSTcorpDVD-ROM TS-H943Ams25 Samsung TS-H943A ms25 ♥ Cancel
Samsung TS-H943A ms25 Cancel

If spoofing as a Lite-On PLDS DG-16D2S, upon selecting Spoofed OSIG JungleFlasher will enable the Lite-On Barcode Section

et Hitachi ID-Strings Drive Key Load key.bin 89C7B3923C6473BBC69E427AA53953D	DA Check
Lite-On Barcode Load inquity.bin D608CG833907010F0	Check
OSIG: Current: HL-DT-STDVD-ROM GDR3120L0059 Spoofed As: PLDS DG-16D2S 7485	ОК
Lite-On DG-16D2S 748500	Cancel

If you have the **Identify.bin** from the Donor Lite-On, you can load it through **Load Inquiry.bin** button and navigating to the file and opening it.

If you have the **Donor Lite-On Drive** to hand, you can manually type the Alphanumeric code on the top of the Drive like shown below



You can manually type this in the box and click Check

Set Hitachi ID-Strings
Drive Key
Load key.bin 89C7B3923C6473BBC69E427AA53953DA Check
Lite-On Barcode
Load inquiry.bin D608CG81881200VM9 Check
Current: HL-DT-STDVD-ROM GDR3120L0059 OK
Spoofed As: PLDS DG-16D2S 7485
Lite-On DG-16D2S 74850C  Cancel

This will enable the Ok Button, Click it to Proceed

Upon clicking **OK** JungleFlasher will Flash a test sector and ask if you wish to Proceed

Click Yes to Proceed

JungleFlasher will then Flash **Drive String ID Sector** (Sector 9003D000)

Once written it will re-dump Drive String ID Sector and verify it has been changed.



Power Off – Disconnect drive, connect SATA back to console and test!

YOU ARE FINISHED – CLICK HERE TO RETURN TO START OF TUTORIAL

## Lite-On PLDS DG-16D2S

### Firmware versions 74850C & 83850C

### <u>Overview</u>

With the release of the 83850C firmware, LiteOn drives now require two totally different methods for each drive. The older 74850C requires additional hardware (it **requires** the utilization of a RS232 to TTL serial hardware, or a popular variant such as **Maximus USBXtractor** & powerunit or Connectivity Kit v3 (optional probe) or Maximus Xtractor (with optional spear)) to obtain the drive specific data (key/inquiry/identify) which once extracted are used to create the dummy.bin

Whereas the newer 83850C does <u>NOT</u> require additional hardware and can be dumped/flashed using only a SATA connection

The key/inquiry/identify/ files are merged into a dummy.bin (this allows for easy manipulation of the drive info for placing into the iXtreme firmware). They contain serial information that is required for proper identification and security related issues.

The LiteOns are unique in the way they are handled as they never produce an Original Firmware file from a dump! – SO - once you have flashed a LiteOn, You Cannot put Original Firmware back on it!



### LiteOn "HALF TRAY OPEN" method!

To obtain the key and other drive specific info from LiteOn drives the user must be familiar with the correct method to set "Half Tray Open" – this is especially important when doing 83850C fw'd drives as the drive must be set into this position twice during the extract!

### Using xbox360 to power the drive

If using a 360 to power the drive this method can be tricky to accomplish.

You need to power on the drive with **Eject status closed** but **Tray Half Open** – To do this using an Xbox 360 as Power source, eject the DVD drive, then, press eject to 'close' the tray. **Now this is the important part – you MUST remove the DVD power plug (the black cable with white plug on back of DVD-ROM) from the DVD Drive BEFORE it closes fully.** 

Wait for a few seconds and replace the power plug into the DVD drive taking **extreme caution** to plug the plug the right way around – once done, the drive is now powered, console thinks its closed but it is in fact half open.

### Using a Connectivity Kit / Xtractor / power dongle to power the drive

For this method, we still need to power on the drive with the "half open tray".

You need to power on the drive with **Eject status closed** but **Tray Half Open** – To do this using a connectivity kit/power unit/Xtractor as Power source, eject the DVD drive, then, press eject to 'close' the tray. **Now this is the important part – you MUST switch off the kit BEFORE it closes** fully.

Wait for a few seconds and switch the connect kit on again – drive is now at "half open tray"

(NOTE- if using Maximus power unit – you must **hold in** the eject switch till fully open then release to close – as it closes switch off, then switch back on!)

### <u>Manually</u>

The easiest way to do this is to use manual eject before powering the drive, to manual eject simply push this slider along until the tray is released.



Then, pull the tray out fully and push half way back in. Now, hook it up to the PC using Connectivity Kit and SATA then power on. (If powering with Xbox – then DVD power plug must be removed before this process, with Xbox powered on – then power plug connected after tray position is set!)

Now, with the eject status set, Open JungleFlasher

### **RETURN TO FLOWCHART AND CONTINUE – CLICK HERE**

### If you have LiteOn files from previous extractions/methods

Jungleflasher – maintains backwards compatibility with files that have been extracted from earlier methods!

A FRESH extraction is <u>recommended</u> where possible – but the option remains available
For 74850C Files (Key.bin/Inquiry.bin/Identify.bin) – Read On!
For 83850C File ( <i>unique</i> .bin.key) – <u>Click Here!</u>

For 74850C firmware files (Key.bin/Inquiry.bin/Identify.bin) simply go to DVDKey32 tab,

imwareTool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120	
10100152	D 10100 32		Theorn Goristeo	

And press the **DummyGen** button – this will allow you to load each file into Jungleflasher which then creates a Dummy.bin and loads it as source. Ready for spoofing to target file and then to proceed onwards to erasing and writing!

Key:	
Status:	
DVDKey32	LO83info
DummyGen	Import 83 key file

## **CLICK TO PROCEED TO FIRMWARE MANIPULATION**

### For 83850C firmware files (unique.bin.key)

### Go to DVDKey32 tab

	and the second sec			
Firmware Tool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120	

Then press the Import83.key button

Drive Key Key:	
Status:	
DVDKey32	LO83info
DummyGen	Import 83 Jkey file
Dummy f	rom iXtreme

this will allow you to load the file into Jungleflasher which then creates a Dummy.bin and loads it as source. Ready for spoofing to target file and then to proceed onwards to erasing and writing!

**CLICK TO PROCEED TO FIRMWARE MANIPULATION** 

## Obtaining Key/Inquiry/Identify and Dummy.bin from iXtreme flashed Lite-On Drives

LiteOn drives of either FW version that have already been flashed with iXtreme can be easily dumped using only SATA connection (no requirement for probe or TTL convertor) *this is a function of the iXtreme firmware NOT a workaround for dumping stock drives!* 

For this method, we still need to power on the drive with the "half open tray".

### FOR INSTRUCTIONS ON HALF OPEN TRAY – CLICK HERE

Now, with the eject status set, Open JungleFlasher, you will be presented with the Welcome Screen. After a few seconds the main window will load.

ungleFlasher 0.1	LIOU DE LA			
Firmware Tool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120	

### Now, click the DVDKey32 Tab

Select **Correct I/O port** (check for drive properties in the **Drive Properties** section) it should report as **PLDS DG-16D2S** (unless spoofed), you can choose to dump dummy.bin only as opposed to all 4 files (Key, Inquiry, Identify **and** dummy.bin) as dummy.bin contains all the information of the other 3 files.

Firmware Tool 32	DVDKey 32	MTK Flash 32	Hitachi Gl	DR3120		
I/O Port		VIA ports	Only 🔽	Com Port	USB Xtractor Switch 📝	
0xE800	✓ Include non-IDE Ports			▼ Dummy.bin Or		
Port Propertie I/O Addres Type: Channel: Postion: Device:	s: 0xE800 SATA Primary Master	I RAID Controller		Com Port Properties Port: Type: USB Name: Status: Not available Drive Key		
Drive Propert Vendor:	es PLDS		T.	Key: Status:		
Name:	DG-16D2S			DVDKey32	LO83info	
F/W Rev:	8385			DummyGen	Import 83 key file	
Reserved:	0CA0A2D6	09CG92191300			from iXtreme	

Then, simply click **Dummy from iXtreme**.

DVDKey32	LO83info				
DummyGen	Import 83 .key file				
Dummy from iXtreme					

### Save as prompted,

File <u>n</u> ame:	Dummy.bin		•
Save as <u>t</u> ype:	Firmware Images (*.bin)		•
Hide Folders		Save	Cancel

### **CONTINUE WITH FIRMWARE SPOOF – CLICK HERE**

### Extracting Key and drive info from 74850C LiteOn

You need to power on the drive with Eject status closed but "Tray Half Open" -

FOR INSTRUCTIONS ON HALF OPEN TRAY – CLICK HERE

With the correct tray status

Open JungleFlasher, you will be presented with the Welcome Screen.



### As you are using DVDKey 32 to obtain data, select DVDKey32 Tab

FirmwareTool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120	

### Check Drive Properties for PLDS DG-16D2S.

Select **Correct I/O port** (check for drive properties in the **Drive Properties** section) and COM port, then **insert probe / spear** into R707 via, optionally, choose to dump dummy.bin only (shown in green)as opposed to all 4 files (Key, Inquiry, Identify **and** dummy.bin). **USB Xtractor** user should enable **USB Xtractor Switch** check box (shown in blue)

I/O Port VIA ports On 0xE800 ▼ Include non-IDE Por	The second se	USB Xtractor Switch
0xE800 ✓ Include non-IDE Por Port Properties I/O Address: 0xE800 Type: SATA Channel: Primary Postion: Master	Com Port Properties Port: COM3 Type: USB Xtractor Name: USB Serial Port Status: Ready	Dummy.bin Only 🔽
Device: VIA VT6421 RAID Controller Drive Properties Vendor: PLDS	Drive Key Key: Status:	
Name: DG-16D2S F/W Rev: 7485	DVDKey32 DummyGen	LO83info
Reserved: 0CA0A1D608CG84391400	Dummy fr	om iXtreme
is is a 32 bit process running on 4 x 32 bi rtIO is installed and running. and 4 I/O Ports. and 1 Com Ports. and 13 windows drives C: D: E: F: G: H: I: and 3 CD/DVD drives I: J: P: B Xtractor Found on COM3		



Good status on Probe / Spear / USBXtractor has LED showing.

USBXtractor Users can press the button on probe to start DVDKey32

### extraction process



Other Users press **DVDKey32** button.

wareTool 32	DVDKey 32 MTK Flash 32 Hitachi GD		
I/O Port	VIA ports Only 🔽	Com Port	USB Xtractor Switch 🔽
0xE800	▼ Include non-IDE Ports	COM3 🗸	Dummy.bin Only 🔽
Port Properties		Com Port Properties	
I/O Address:	0xE800	Port: COM3	
Type:	SATA	Type: USB Xtractor	
Channel:	Primary	Name: USB Serial Port	
Postion:	Master	Status: Ready	
Device:	VIA VT6421 RAID Controller	Drive Key Key:	
Drive Propertie	95	Status:	
Vendor:	PLDS		
Name:	DG-16D2S	DVDKey32	LO83info
F/W Rev:	7485	DummyGen	Import 83.key file
Reserved:	0CA0A1D608CG84391400		
		Dummy fro	miXtreme
IO is install d 4 I/O Ports d 1 Com Ports d 13 windows	drives C: D: E: F: G: H: I: J: K ives I: J: P: d on COM3		

Providing serial connection was good, DVDKey 32 will dump the key 6 times and compare each

dump –

USB Xtractor switch enabled USB Xtractor switch Detected, Sending DVDKey\_32 Sending DVDKey request to I/O port 0xE800 and COM6 Serial Data looks ok, key returned: FE6853D5442FCFB8B79474C101147878 Serial Data looks ok, key returned: FE6853D5442FCFB8B79474C101147878

then prompt you to save **key.bin, inquiry.bin, identify.bin (unless you have selected dummy.bin only box)** and **dummy.bin.** 

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Of course, should you have enabled the 'Dummy.bin Only' option you will only be prompted to save Dummy.bin.

Contractor in Contract Principal and	-		and the second second		_	11/4
👌 Organize 🔻 🏢 Views	* E	New Folde	8			1
Fevorite Links		Name	Date modified	Туре	Size	30
Documenta			No items m	satch your search	÷.	
More **						
Folders	~					
JUNGLEFLASHER JungleFlasher_v0.1.51_Be odd files older tuts Original_Firmwares Xbox Zip Files CDM 2.04.16 WHQL Cert portio32_1.4.zip	8					
File name: Dumm	y.bin					
Save as type: Firmwa	es (*.bin)				,	

Although extracting the key 6 times increases the chances of correct key being obtained and checks are carried out on validity – There is only one way to know for sure the key is GOOD.

You should, where possible, spoof the data into a different drive and test to see it works BEFORE erasing the Lite-On Drive.

There is no harm in running DVDKey 32 multiple times, increasing the number of key extractions.

### Firmware Manipulation

JungleFlasher will then prompt you asking if you would like to auto-load iXtreme for Lite-On Drives. You must have installed the **JungleFlasher Firmware Pack** into the same directory as JungleFlasher.exe if you wish to benefit from this feature.



Click **Yes** to auto load iXtreme (from the firmware pack) for Lite-On into the **Target Buffer**, JungleFlasher will also load your previously dumped **Dummy.bin** as **Source Firmware**. Then, copy data from **source to target automatically**.

Just verify Source data reports as it should, DVDKey 32 Extract with OSIG of PLDS DG-16D2S with the same key you dumped (check log for reference).

Now, verify **unique Source Data** matches that in **Target Buffer** and click save to file if you wish to backup your Hacked firmware.

FirmwareTool 32         DVDKey 32         MTK Flash 32         Hitachi GDR3120           Source         Inquiry         Identify         Drive Serial	User Guide
Vendor Model Rev Firmware Type DVD Key @ 0xA030 Lite-On DG-16D2S 74850 DVDKey32 extract FE6853D5442FCFB8B79474C101147878	Save Drive Key
OSIG: PLDS DG-16D2S 7485	Open Source Firmware
Advanced Vie Spoof Source Check The Key has been	
Check The OSIG/models info match copied from source to target	Open Target Firmware
D:\JFBeta.0.1.4 (50S)\firmware\ix16-liteon.bin	Manual
Vendor         Model         Rev         Firmware Type         DVD Key @ n/a           Lite-On         DG-16D2S         74850         iXtreme v1.60-12X- FINAL-DG-16D2S         FE6853D5442FCFB8B79474C101147878	Spoofing
OSIG: PLDS DG-16D2S 7485	Save to File
enuine Lite-On iXtreme 1.6 nguiry area found this	his stage, use to save your
irmware is a Lite-On encrypted iXtreme OSIG: PLDS DG-16D2S 7 NAC irmware type is: iXtreme v1.60-12X-FINAL-DG-16D2S 7D Key copied to target	ked FW
nquiry string copied from Source to Target dentify string copied from Source to Target erial strings copied from Source to Target ev database updated	(

## <u>The Next step is to ERASE the drive, its vitally important you</u> <u>only do this once you KNOW you are ready and have read the</u> <u>tutorial, in full, to understand the risks.</u>

# IMPORTANT!!!!!

Sending the erase command to the Lite-On using VIA Card with drivers installed poses the potential risk of the system locking up due to the VIA chipset polling the erased Lite-On and not liking the response!!!!!!!

Please <u>CLICK HERE</u> and follow instructions to remove Card Drivers if you have not done so already.

You should, where possible spoof the data into a different drive and test to see it works BEFORE erasing the Lite-On Drive.

**Spoofing other drives – Click Here!** 

Spoofing Hitachi – Click Here!

There is no harm in Dumping the key/info multiple times, increasing the number of key extractions.

### Erasing a Lite-On PLDS DG-16D2S.

### PLEASE READ THE WARNINGS ABOVE.

### Once you erase the drive, there is NO GOING BACK.

Click the MTKFlash 32 Tab.

JungleFlasher 0.1	.66 Beta	-	in the second se	
Firmware Tool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120	
I/O Port				activate.iso
0vE800	-		360 Tools	

#### Verify I/O Port is correct and click Lite-On Erase.

FirmwareTool 32	DVDKey 32	MTK Flash 32	Hitachi GDR3120			
I/O Port						activate.iso
0×E800	•		360	Tools		
Port Properti	es			Beng UnLock	Sammy UnLock	Lite-On Erase
I/O Addre	ss: 0xE800		t_			
Туре:	SATA		Flash	h Chip Properti	es	
Channel:	Primary		Ve	end <mark>or</mark> ID:		
Postion:	Master		De	evice ID:		

JungleFlasher will warn of the importance of having a verified **Good Drive Key.** 

### <u>Please Note, the only way to know 100% that a key is good, is to flash a different drive and</u> <u>test BEFORE sending erase command.</u>



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Click **Yes** if you wish to Proceed.

JungleFlasher will present you with another warning.



Read this carefully, in most cases JungleFlasher wil return a Running Log similar to this: We have had 0xD0 / 0x80 / 0xF2 / 0xD1 and all worked fine.

After pressing yes and during the sequence of dots shown below, switch drive Power Off then On - ONCE.

> Sending Lite-On-Brase request to port OxCFOO Drive returned Status OxF2

Hopefully you will see good Flash Chip Properties and Status 0x72 (2 known SPi Chips for Lite-On's, Winbond and MXIC) MXIC Shown, drive will appear in Vendor Mode under Drive Properties.

Firmware Tool 32 DVDKey 32 MTK Flash 32 Hitac	hi GDR3120
I/O Port         0xE800         Port Properties         I/O Address:       0xE800         Type:       SATA         Channel:       Primary         Postion:       Master         Device:       VIA VT6421 RAID Controller         Drive Properties       Vendor:         Vendor:       Drive in Vendor Mode!         Name:       F/W Rev:         Reserved:	360 Tools          Benq       Sammy       Lite-On Erase         Hash Chip Properties       Lite-On Erase         Vendor ID:       0xC2         Device ID:       0x11         Name:       MXIC(MX25L2005)         Size:       262144 bytes         Type:       Serial flash with status 0x72         Hashing Tasks       Outro / ATA Reset         Read       Erase       Write
rive returned Status 0x0 erial flash found with Status 0x72 ending Vendor Outro to port 0xE800 anufacturer ID: 0xC2 evice ID: 0x11 lash Name: MXIC(MX25L2005) lash Size: 262144 bytes	

Drive is now in Vendor Mode (0x72).

### Click the Write button to write Target Buffer to the drive.

Name:	PLDS DG-16D2S	Type: Flashing Tasks Intro / Device ID Outro / ATA Reset	
	7485 0CA0A1D608CG84391400	Read Erase Write	
Genuine Lite-On iX	Ktreme 1.6		*

Drive Properties Vendor: PLDS Name: DG-16D2S F/W Rev: 8385 Reserved: 0CA0A2D609CG92191300 Different properties when	<u>Now send a</u>	n <b>Running Log</b> signals good write. <b>an Outro to the drive.</b> the <b>Outro / ATA</b> Reset Button
F/W Rev:	PLDS DG-16D2S	Name: Size: Type: Flashing Tasks Intro / Device ID Outro / ATA Reset Read Erase Write
Reading Bank 1: Reading Bank 2: Reading Bank 3: Write verified		

This will release a drive from **Vendor Mode** and send **ATA Reset** to the Drive. It then sends an inquiry command to the drive.

This will save you power cycling the drive and then changing port away and change it back again, with the click of a button, the drive will 'reset' itself and JungleFlasher will send an inquiry command to the drive. If successfully flashed the drive should Inquire correctly and display drive properties.

Power Off – Disconnect SATA from PC, connect SATA back to console and test!

### **COMPLETE – CLICK HERE TO RETURN TO START OF TUTORIAL**

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### LiteOn "83850c" Extraction

How to obtain the unique data from your PLDS DG-16D2S **83850c** drive and create a Dummy.bin.

## The 83850C Firmware drives <u>DO NOT</u> require the additional Hardware that the 74850C Firmware drives do –

## 83850C drive's information is extracted through SATA!

## Obtaining Dummy.bin

Please Note: Dummy.bin is **not** Original firmware, it is [FAKE] firmware based on the structure of an Original firmware file, and this makes everything easier to work with.

Connect your 83850c to your PC via S-ATA

Power on and run JungleFlasher v0.1.66b or above



For Support join #JungleFlasher on EFnet

### Select DVDKey32 Tab

Port Properties	Include non-IDE Ports	COM3 👻	
			Dummy.bin Only 🔽
		Com Port Properties	
I/O Address: 0xE8	300	Port: COM3	
Type: SAT	A	Type: USB Xtractor	
Channel: Prim	ary	Name: USB Serial Port	
Postion: Mast	er	Status: Ready	
Device: VIA	VT6421 RAID Controller	Drive Key Key:	
Drive Properties		Status:	
Vendor: PLDS	6		
Name: DG-1	6D2S	DVDKey32	LO83info
F/W Rev: 8385		DummyGen	Import 83 .key file
Reserved: 0CA	DA2D609CG92191300	Dummy from iXtreme	
		Dummy from	n iXtreme
is a 32 bit proces ) is installed and			
4 I/O Ports.			
	C: D: E: F: G: H: I: J: K: L	. M. N. D.	
) is installed and 4 I/O Ports. 1 Com Ports.			

Check to see the 83850c Inquires on the port.

### Select LO83info

DVDKey32	LO83info	
DummyGen	Import 83 .key file	
Dummy from iXtreme		

You will see this message:



Here you must set the tray to 'Half Open (but half closed status)',

FOR INSTRUCTIONS ON HALF OPEN TRAY – CLICK HERE

Please ensure you have the drive **fresh / power cycled after setting Half Open Tray, this is essential.** Then, click **OK** 

JungleFlasher will then send the LO83info command to the drive; you will see the following in the **Running Log** 



Within a few seconds, you will also be prompted with an instruction from JungleFlasher to set the drive to full Open Tray status



## DO NOT POWER CYCLE THE DRIVE AT THIS STAGE; DOING SO WILL RESULT IN A BAD/FAILED DUMP!!!!

Eject the drive (so it is fully open) OR manually move the tray fully open by hand!

Once tray is fully ejected, click **OK** 

If the dump appears to JungleFlasher that it was valid, JungleFlasher will prompt you to **power on** with half open tray again..



As with the original command, please ensure the drive is **fresh / power cycled as** part of setting "tray half open", before continuing

Once this is set, click **OK** 

JungleFlasher will then ask you to set full open tray again



Move the tray to the fully ejected position as before and click **OK** 

### Jungleflasher will now prompt you to save!

File <u>n</u> ame:	Dummy.bin	*	<u>S</u> ave
Save as <u>t</u> ype:	Firmware Images (*.bin)	~	Cancel

### Save this file.

Note: I only save dummy.bin as I have dummy.bin only enabled in the DVDKey32 Tab, JungleFlasher \*may\* prompt you to save Inquiry.bin and Identify.bin if this isnt enabled.

Once saved, JungleFlasher will load Dummy.bin as Source Firmware in FirmwareTool32 and prompt you to auto load iXtreme (from the firmware pack)



If you have selected YES, target firmware will be loaded and automatically spoofed

Check the keys match and the OSIG/model info is the same!

FirmwareTool 32 DVDKey 32	MTK Rash 32 Hitachi GDR3120	
Source Inquiry Identify Drive	Serial	<u>User Guide</u>
Vendor Model Rev Lite-On DG-16D2S 83850	Firmware Type DVD Key @ 0xA030 LO83info Extract 61DBCE929789A349FAF1334FFAI	Save Drive Key B118A2
OSIG: PLDS DG-16D2S	8385	Open Source Firmware
Advanced Vie	Spoof Source Check The Key has been	
Check The OSIG/mode	s info match copied from source to ta	Open Target Firmware
D:\JFBeta.0.1.6,50S)\fimwa	re\ix16-liteon838.bin	Manual
Vendor Model Rev Lite-On DG-16D2S 83850	Firmware Type DVD Key @ n/a iXtreme v1.60-12X- FINAL-DG-16D2S	Spoofing
OSIG: PLDS DG-16D2S	8385	Save to File
nquiry area found mrent DVD key is 55AA55 rmware is a Lite-On end	AASSAASSAASSAASSAASSAASSAA rypted iXtreme OSIG: PLDS DG-16D2S	8385
rmware type is: iXtreme D Key copied to target quiry string copied fro	v1.60-12X-FINAL-DG-16D2S m Source to Target	
lentify string copied fr rial strings copied fro y database updated	그 사람은 동네에서 잘 못 다 들었다. 이렇게 잘 들어야 하는 것이 가지 않는 것이 같다.	

Then if you wish you can click **Save to File** button to save a copy of your hacked Firmware.

## **CLICK HERE TO CONTINUE TO ERASE/WRITE SECTION**

## Removing VIA drivers (Windows XP/Vista/Win 7) NOT TO BE DONE IF YOUR MAIN HARD DRIVE IS ON VIA SATA CARD or IF YOUR VIA CHIPSET IS ONBOARD(i.e. NOT A PCI CARD)

This is how I done it, it worked fine, may not be 100%

Right Click My Computer, select properties



### Click the "Hardware" tab

System Proper	ties		? 🛛	
System Restore		Automatic Updates Remote		
General	Computer Name	Hardware Advanced		
		System: Microsoft Window Professional Version 2002 Service Pack 2 Registered to: Oggy	rs XP	
		Computer: AMD Athlon(tm) 6 Core Processor 50 2.61 GHz, 3.00 G Physical Address	000+ B of RAM	
		OK Cancel	Apply	

Then, click "Device Manager"

System Properties	? 🛛
System Restore Automa General Computer Name	atic Updates Remote Hardware Advanced
Device Manager	the hardware devices installed
	evice Manager to change the
_ Drivers	Device Manager
Driver Signing lets you make	/indows Update lets you set up
Driver Signing	Windows Update
Hardware Profiles	
Hardware profiles provide a v different hardware configurati	way for you to set up and store ions.
	Hardware Profiles
	Cancel Apply

Navigate to "SCSI and RAID Controllers" and click the + sign to expand the list

File A	Action View	delo.		
FRE A		1.00	1.00	
(m) (m)	• • •		3	
= A c	000Y-D364C2231	E		
	Acronis Device			
	Computer			
10-	Disk drives			
10-1	Display adapts	975		
8-4	DVD/CD-ROM	drives		
	PIONEER I	OVD-RW DVR	-1150	
	PIONEER	DVD-RW DVR	-215D	
			CdRom Device	
E1-6	Floppy disk.co			
	- 😤 Standard		ntroller	
10.00	human Interfa	100 To 100 To 100		
	B IDE ATAJATAP			
	🖗 IEEE 1394 Bus	host control	5/5	
	Keyboards	200020000		
1	Mice and othe	r pointing dev	ices	
-	Monitors	0.000		
	Metwork adap			
1.5	Ports (COM &	(PD)		
-	Processors	A second second second		
2.2	ALEDIPLE	and the second se	2	
	VIA VT642		New York Company of the Second S	
-	5 Sound, video			
	Storage volum			
	System device			
	Universal Seria		ers	
101.23	V50 devices		678.H)	
(4) (4)				

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## Right Click the VIA 6421 RAID Controller (may report as 3249 if using 550b drivers or above) and select **Disable**



### Acknowledge the warning by clicking Yes



It should now show as disabled in Device Manager like so:



Now, to remove drivers we must navigate to where relevant file is

mine were located, and most will be: C :\WINDOWS\system32\drivers\ XXXXXX.sys file -

Depending on your motherboard and OS

For XP normally called **viamraid.sys** For Vista/Win 7 normally called **vsmraid.sys** 

Once found, delete this file.

Once deleted, go back to device manager using the same steps outlined above.

Find your disabled VIA 6421 Card, right click and select enable



It should now show as the image below



If so, reboot your PC

Upon reboot, verify VIA 6421 still has a Yellow Exclamation Mark in Device Manager

You have successfully removed VIA drivers from your machine

### **CLICK HERE TO RETURN TO STARTING POINT**
## **Manual Spoofing**

Hopefully the excellent key, OSIG and serial spoofing of FirmwareTool32 should satisfy your needs, but sometimes you need the manual method for whatever reason.

Located in FirmwareTool32

#### You need the firmware you wish to Spoof loaded into the target buffer



#### Once loaded, Click Manual Spoofing

#### **Changing Drive Keys**

Here you can manually type a Drive Key – It must be in Hex-Decimal format. It should **ONLY EVER** really be used if you have your Drive Key in a text file or email.

If you have a key.bin or 'Original Firmware' you can save to key.bin as shown above in the **Save key to file** section and use the **Load key.bin** option

Load key.bin			

Just click load key.bin and navigate to your key.bin file, select it then it will automatically load it into the **Manual Spoof Window.** 

#### Changing Drives OSIG (String ID)

Simply select the drive you want your new drive to report to the console as, from the drop down list and click **OK**.

If Changing OSIG to a Lite-On PLDS DG-16D2S this will activate the Lite-On Barcode section of Manual Spoofing, please see below for instructions.

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#### Spoofing Lite-On Barcode into Inquiry String

This is for Spoofing a drive in place of a Lite-On manually, once Drive Key is inserted, you will want to spoof as PLDS DG-16D2S, next you want to load your identify.bin by clicking **Load Inquiry.bin** and navigating to **Inquiry.bin**, upon selecting it, JungleFlasher will load it into the window, now you can click **OK** to finish spoofing the firmware.

If you don't have the **Inquiry.bin** file, JungleFlasher will let you manually type the barcode (located on the top of the Lite-On) into the cox, in the format of **17 Alpha-Numberic Characters followed by 3 spaces. You MUST include the spaces manually.** 

e.g.



D608CG82690600G2W\_

#### Then, click **Ok** to finish Spoofing the Firmware

## VIA Ports only & Include Non IDE ports

Found under DVDKey32 tab,

	_
VIA ports Only 🗌	1
Include non-IDE Ports	1

#### VIA Ports Only

This feature suits those who have quirky onboard Sata Cntrollers (SIL, JMicron) and a VIA6421 PCI Sata Card.

Checking the box removes all **non-via** sata ports, this will stop you trying to Inquire / DVDKey a drive on your non-via SATA/IDE ports. Some chipsets don't like the Inquiry and will hang the system.

\*\*NOTE\*\* If you do not actually have any VIA ports, JungleFlasher will itself uncheck the box and re-enable the non VIA ports

#### Include non-IDE Ports

This option allows you to scan port for contollers Classed as SCSIAdapter. Some newer chipset use the Class rather than hdc (aka IDE). However this will also show actual SCSI contoller which are obviously of no use for flashing. Please avoid this function unless you know what you are doing.

## LiteOn 'Serial Fixer'

If you are prompted that serial data is missing in an error similar to this:



To fix proceed, click Yes.

JungleFlasher will then, ask if you wish to repair this data (only possible if you have original source liteon available).



Click yes to rebuild data.

JungleFlasher will then pop up the Serial Rebuilder Applet

Update Serial Info	
Cover	Laser
??????????????????????????????????????	
	2222
PCB HW Ver	????
??????????????????????????????????????	????
2222222	Cancel

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To rebuild the **Serial Data** you must copy the information from the **physical drive itself**, into the boxes in the applet shown.

The data required is located in 4 places:

- 1. The Drive Chassis / Shell
- 2. The Hardware Revision of the drive
  - 3. The Laser
  - 4. The PCB of the drive itself

#### 1. The Drive chassis / Shell

Located on the top of the drive, and 17 Characters long



Insert into the cover area on the Serial Rebuilder

#### 2. <u>Hardware Revision</u>

Possibly the easiest of the four, located on the top sticker of the drive and usually A0A1 or A0A2



Insert this data into the HW Ver section of the Serial Rebuilder

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#### 3. The Laser

Self explanitory, located on the base of the laser.



#### Insert this into the Laser area of the Serial Rebuilder

#### 4. The PCB of the Drive

You will need to remove the top of the Drive Case to see this data and it is sometimes obscured

by pen. The Data will start **S4P.....** It's the 2<sup>nd</sup> and 3<sup>rd</sup> Line you require



Insert this data to the PCB section of the Serial Rebuilder Once done, click Ok, and save Dummy\_fixed.bin when prompted

**CLICK HERE TO RETURN** 

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## Spoofing as a different type of drive

Apart from spoofing a hitachi drive(as another type), the technique is very simple! To begin with you should have a original dump from the drive you wish to "clone" – so, you should have a pre dumped bin file from the donor drive!

> for LiteOn a Dummy.bin for Samsung a Sam-OFW.bin for Benq a Ben-OFW.bin for hitachi a Hit-OFW.bin

Now follow the tutorial to unlock (follow the tut for that specific drive up to the point you would write to the drive) for whichever drive you are going to spoof as the donor drive.

For instance you have a spare samsung drive you want to test a liteOn key with before you erase your LiteOn! (you have already dumped the drive and saved the Dummy.bin)

So you take your samsung, unlock it in accordance with the tutorial!

FirmwareTool 32   DVDKey 32   MTK Flash 32   Hitachi GDF	33120
I/0 Port       0xCF00       Port Properties       I/0 Address:     0xCF00	360 Tools Beng Sammy Lite-On UnLock UnLock
Type: SATA Channel: Primary Postion: Master Device: VIA VT6421 RAID Controller	Flash Chip Properties Vendor ID: 0x8F Device ID: 0x86 Name: SST(SST39SF020) Size: 262144 bytes
Drive Properties Vendor: Drive in Vendor Model Name: F/W Rev: Reserved:	Type: Parallel flash with Status 0x70 Flashing Tasks Intro / Device ID Outro / ATA Reset Read Erase Write
Sending Vendor Intro to port 0xCF00 Parallel flash found with Status 0x70 Sending Device ID request to port 0xCF00 Manufacturer ID: 0xBF Device ID: 0xB6 Flash Mame: SST(SST39SF020) Flash Size: 262144 bytes	

Which would then be in vendor mode ready to write firmware to!

#### Now go to firmwaretool 32 tab

FirmwareTool 32 DVDKey 32 MTK Flash 32 Hitachi GDR3120

Load your dummy.bin as source -

#### decline any auto load ix messages!

Load target firmware – (you are about to flash a samsung so choose ix firmware for a samsung drive)

Source Inquiry Identify Driv	e Serial		User Guide
D:\BACKUPS - my xbox\Dum	imy.bin		Save Drive
Vendor Model Rev	Firmware Type	DVD Key @ 0xA030	Key
Lite-On DG-16D2S 83850	) LO83info Extract	61DBCE929789A349FAF1334FFAB118A2	
OSIG: PLDS DG-16D2S	8385		Open Source Firmware
Advanced View	Spoof Sourc	e to Target   Donate	
Target Inquiry Identify Drive	e Serial		Open Target
			Firmware
D:\JFBeta.0.1.66(50S)\Fimw	are \ix16-samsung.bin		Manual
Vendor Model Rev		DVD Key @ 0x40EC	Spoofing
Samsung TS-H943A ms28	iXTREME1.6-12x-FI -TS-H943A	N. L 77777777777777777777777777777777777	
OSIG: TSSTcorpDVD-ROM	1 TS-H943Ams28		Save to File
rmware type is: iXTREM	E1.6-12x-FINAL-T	S-H943A	
ading Source File D:\B			
quiry string found	ACKUPS - my xbox	(Dummy.Bin	
entify string found D key found @ 0xA030 k	ey is 61DBCE9297	89A349FAF1334FFAB118A2	
rmware is a Lite-On Du	mmy OSIG:		

## Now click **Spoof Source to Target**!

Spoof Source to Target	
open bearer to target	

Notice the difference in the target firmware now!

immwareTool 32 DVDKey 32	MTK Flash 32	Hitachi GDR3120		
Source Inquiry Identify Drive Se	rial			User Guide
D:\BACKUPS - my xbox\Dummy.b	in			
Vendor Model Rev Fi Lite-On DG-16D2S 83850 L	rmware Type	DVD Key @ 0xA030 61DBCE929789A349FAF13	24554011042	Save Drive Key
	3385	61DBCE323783A343FAF13	34FFAB I I 6AZ	Open Source Firmware
Advanced View	Spoof Source	ce to Target	Donate	
Target Inquiry Identify Drive Ser	ial			Open Target Firmware
D:\JFBeta.0.1.66(50S)\Firmware\	ix 16-samsung.bin			1
	rmware Type TREME1.6-12x-FI	DVD Key @ 0x40EC INAL 61DBCE929789A349FAF13	34FFAB118A2	Manual Spoofing
-T OSIG: TSSTcorpDVD-ROM TS	S-H943A -H943Ams28 Sp	poofed As: PLDS DG-16D2	6 8385	Save to File
rmware type is: LO83info )	Extract			
oofing Target				
D Key copied to target quiry string copied from :	Source to Tar	get		
entify string copied from	Source to Ta			
entify string copied reve rget spoofed as: PLDS	rsed DG-16D2S	8385		

Then all you have to do is Write to the drive the same way as you would for that type of drive! In a samsungs case – click **Write** when on the **MTK** tab!

The same method applies to all drives apart from Hitachi which is covered HERE

#### Advanced User Info

## **Advanced Ctrl+Fkey Functions**

Ctrl + F1 key, Enable context menus Ctrl + F2 key,**Disable context menus** Ctrl+ F3 key To Send Vendor Intro to currently selected Port Ctrl + F4 key To open iXtreme from firmware folder to Target Ctrl + F5 key, Set Modder mode backup directory, clear folder to disable it Ctrl + F6 key, Hitachi read block size 100 --> 2000 (78 and 79 FK models will fail on this) Ctrl + F7 key, Set working folder in Modder mode... clear all tabs and save log Ctrl + F8 key, Enable Hitachi Expert Mode! Ctrl + F10 key To add/update key database from Source tab info Ctrl+ F11 key To create .csv from key database Ctrl + F12 key To open key database in Notepad

#### **Registry Settings**

## Only really for troubleshooting and debugging and should only be attempted by those confident enough to play about in the systems registry settings

#### Click **Start**, click **run**, type **regedit** and press **enter** Navigate to **HKEY\_CURRENT\_USER** Click on **JungleFlasher**

<u>E</u> dit <u>V</u> iew F <u>a</u> vorites <u>H</u> elp Computer	Name	Туре	Data
HKEY_CLASSES_ROOT	ab (Default)	REG SZ	(value not set)
HKEY_CURRENT_USER	ab AdvView	REG_SZ REG_SZ	(value not set)
110265407		100.00 - TT 200.00	
	ab BackupFolder ab COMPort	REG_SZ	D:\BACKUPS - my xbox\
	50	REG_SZ	-1
	ab Delay32	REG_SZ	0
	ab Delay79	REG_SZ	500
	ab DoCom	REG_SZ	1
	ab DoDevID	REG_SZ	0
	ab DoDrives	REG_SZ	1
AppEvents	ab DoIO	REG_SZ	1
	ab HitAPi	REG_SZ	1
Console	ab HitRev	REG_SZ	47
De Lontrol Panel	ab HitTran	REG_SZ	1
Environment	abioport	REG_SZ	0
D- EUDC	abLeft	REG_SZ	177
Identities	ab Mods	REG_SZ	0
D JF_KeyDB	ab OnlyDummy	REG_SZ	1
	ab ScsiPorts	REG_SZ	1
Keyboard Layout	ab Top	REG_SZ	95
	ab ViaPortsOnly	REG_SZ	1
Printers	ab Xswitch	REG_SZ	1
SessionInformation			
SlySoft			
System Volatile Environment			
HKEY_LOCAL_MACHINE			
HKEY_USERS			
		III	

#### You will see something similar to this:

- Adview Remembers whether Advanced View was selected or not
- BackupFolder Contains the location set for backup folder for modder mode (blanked if modder mode not set
  - COMPort Remembers last COM Port selected, number represents position in drop down menu
- Delay32 timed delay between clicking dvdkey32 and running the command, to allow time to probe r707 (milli-seconds)
  - Delay79 a set time delay used in the 79unlock command (milli-seconds)
    - DoCom Enumerates comports, for debug use only
    - DoDevID Will send Intro if drive reports as in Vendor Mode
      - DoDrives Enumerates drive letters, for debug use only
      - **DoIO** Enumerates I / O ports, for debug use only
      - HitAPi Remembers if WinAPi is selected (1 yes, 0 no)
        - HitRev Remembers last drive revision selection
      - HitTran Remembers last Tranfer Method selection
  - IOPort Remembers last IO Port selected, number represents position in drop down menu
    - Left Remembers postion of JungleFlasher window (left hand side)
      - Mods Counter for CTRL + F7 operations
      - OnlyDummy Remembers if Dummy.bin only is enabled
      - ScsiPorts enumerate SCSIAdapter IO ports also (NON-IDE)
      - Top Remembers postion of JungleFlasher window (Top
  - ViaPortsOnly enumerate only Via IO ports, for safety (Value 1) Lists all if removed or Value 0
    - Xswitch Remembers if USBxtractor switch is enabled

## In addition to the above registry settings – the key database is also stored in registry!

In the same area of registry is a a folder called JF\_KeyDB which if selected looks something like this! Page 121 of 134

<u>E</u> dit <u>V</u> iew F <u>a</u> vorites <u>H</u> elp				
	*	Name	Туре	Data
D - 🔐 EUDC		(Default)	REG_SZ	(value not set)
Identities		ab Created	REG_SZ	Fri Aug 07 00:17:13 2009
JF_KeyDB		ab Index	REG_SZ	28
1		ab JobName	REG_SZ	N/A
10		ab Key	REG_SZ	61DBCE929789A349FAF1334FFAB118A2
11		ab KeyLoc	REG_SZ	0xA030
13		ab Model	REG_SZ	DG-16D2S
14		ab Osig	REG_SZ	PLDS DG-16D2S 8385
15		ab Rev	REG_SZ	83850
		ab Type	REG_SZ	Dummy from LO83info.bin.key
		ab Updated	REG_SZ	Mon Sep 14 12:48:04 2009
		(Wendor	REG_SZ	Lite-On
	II.	ab WorkingDir	REG_SZ	N/A
23				
3				
31				
	-		III	

If you select a numbered folder it will display all the details of that particular dumped/loaded FW file. The entrys are fairly self explanitery.

## **Common problems and Frequently Asked Questions**

#### JungleFlasher tells me "No Com ports found during enumeration"

The LiteOn DG-16D2S 74850c Drive requires the utilization of an RS232 Serial Adapter to obtain the DVD Drives key. Unless you are doing one of these drives, simply ignore it and proceed.

#### JungleFlasher warns me of "No VIA Ports Found"

Due to quirky issues with some VIA Motherboards with VIA PCI SATA Cards, causing JungleFlasher to fail to load, we've forced via ports only as default. This, for those without a VIA PCI SATA card, or VIA motherboard will get this warning.

If you do not have a VIA PCI card or a VIA Motherboard, proceed to the **DVDKey32 Tab**, and ensure **Non-IDE Ports is checked**. You will no longer get the warning when running JungleFlasher.

#### JungleFlasher cannot see my drive

Ensure you have installed Portio32! – <u>CLICK HERE!</u>

There are multiple causes to this, so first of all ensure **VIA Ports Only** is unchecked and **Non-IDE** is checked under the **DVDKey32 Tab**.

If using RAID, it will cause issues. Set it to Native IDE / Disable AHCI (Intel) / Raid in your computers BIOS.

Use a Primary SATA port where possible.

If using a VIA card ensure you use the correct port



If problems persist, please join us in the support channel HERE

#### JungleFlasher doesn't see my DVD Drive (cont)

Quite a few users believe JungleFlasher will report their Xbox 360 DVD Drive being Present in the Running Log:



JungleFlasher will only show drives that have been assigned a drive letter in windows.

The only 360 DVD Drive that has this during the process is the Hitachi Drives (Once in mode-b) and using WinAPI. Please, don't be surprised if JungleFlasher doesn't enumerate your DVD Drive.

## I keep getting \*\*Warning Serial Data is Bad\*\* Errors when trying to DVDKey my LiteOn

Is it definitely a **74850c** version? The **83850c** uses **LO83Info** instead.

If this is the case, there are several things you will need to check.

Are you probing the R707 hole?

Using the USB connection from your CK3/Xtractor? if so check their websites for installation instructions (ie installing usb etc)

Using the Serial cable, double check this is connected properly.

Is the tray half in? You can check the <u>User Guide</u> on how to do this. Without the tray half in, you will get this error.

Is the Probe/Spear connected properly, have the correct lights? Double check these connections.

Using a home-made? Well unfortunately we can't troubleshoot this for you, if you choose the home-made method it's your responsibility.

Never rule out the possibility of one of these cables being faulty. If you have tried all of the other checks, then try using alternative cables.

## My Maximus power adapter doesn't eject

This is a common one and deceives every user of the kit. You must keep eject pushed in for the drive to eject. Letting go will close the tray back over.

## I don't know what SATA Chipset I have

Download this program **CPU-Z** <u>HERE</u> and install it. Once installed, run the application, click on the **Mainboard Tab.** Your SATA Chipset is listed under **Chipset**.

## I got an x/y when reading/writing/verifying my drive.

One, or a couple of instances is fine, JungleFlasher retries and as long as you have the **16 dots** and **Write Verified OK!** It's fine.

#### I have an xxxxxxx Drive but JungleFlasher sees it as yyyyyyyy

This is more than likely a Spoofed Drive. This is where a manufacturer of one drive, is used in place of a different manufacturer's drive.

The Xbox 360 checks what DVD Drive is in there using the drives OSIG. If this doesn't match, the console will report E66.

To overcome this, we can change one string in the drives Firmware, making one drive, report as the other, this fools the Xbox 360, but has an adverse affect with JungleFlasher as it will also report as the "other" drive.

Just treat it as the drive it really is, so if it is physically a Samsung, unlock it like a Samsung, write Samsung Firmware too it (with spoofed OSIG)

## I LiteOn Erased my LiteOn and it failed / Device Intro Failed, now JungleFlasher won't detect my drive!

Calm down, your drive isn't bricked! JungleFlasher tries to automate as much of the process as possible, making it seamless. This time, sadly, it didn't work.

All you need to do is manually do the process again, power cycle the Drive, then send a MTK Intro to the drive.

JungleFlasher Will **not** see the Drive (No Drive Detected) as it is actually, now erased.

## I get "Drive Rev Undetermined... Aborting!" When trying to dump my Hitachi

There are two main causes for this, the main one being a user trying to dump the drive using **WinAPI** but not having the correct drive selected in the **Top Right** drop down box. Try closing JungleFlasher, scanning in Device Manager and reopening JungleFlasher.

The second is caused by trying to dump a v79 that hasn't been 79unlocked

#### I've set Mode-B but my drive won't show in the drop down box.

If using Windows Vista, or Windows 7, please close JungleFlasher, scan in Device Manager and re-open JungleFlasher, if this doesn't help, please leave your drive tray Ejected, and reboot your PC with **drive still powered and in Mode-B.** If the problem persists, please feel free to join the support channel and seek further assistance. <u>HERE</u>

If you are using PortIO option in Hitachi tab – It's not meant to!

## My Xbox keeps turning itself off while I'm trying to flash my drive

If you are using the Xbox to power your drive during flashing, you **MUST** have the AV cable plugged into the Xbox (other end does **NOT** need to be connected to TV), otherwise it will power down after a few minutes (disaster if you are flashing a Hitachi). The HDMI cable can be used instead but it **MUST BE** connected to the TV!

## It keeps saying serial data missing? OMG what do I do?

There is the option to rebuild the serial data from the serial numbers on the LiteOn case, laser and PCB. You can proceed and fill this data in IF YOU WISH! Go <u>HERE</u> for instructions on how. But – remember if the data is missing from the drive, do you really want to add it now? If it's a brand new drive that's not been touched before then it may be advisable to leave it!

# I am trying to insert the unlock79 CD but I press twice to close and it opens again!

This is fairly common, in mode B some drives take 3 presses of eject button instead of 2 to get the drive to stay closed!

#### Every time I connect my drive to my VIA card my PC slows down or freezes

Try **reading** the tutorial.....! Remove your drivers for the card! Instructions for how to do it properly are <u>HERE</u>. OR in the less likely event that you have already correctly removed the drivers from the card and it still freezes – try moving your card into another PCI slot! (you may be required to reinstall drivers then remove using same method as before)

#### I just flashed my LiteOn – placed in a game and it doesn't work – OMG!

Before you panic – try ejecting then closing, and then reboot the console! It's possible the tray wasn't fully closed when the console booted and 0800 mode was activated – causing an error!

## I downloaded the Liteon FW for my 74850C– I put it in the firmware folder, BUT Jungleflasher wont auto load it WHY?

If your LiteOn iXtreme firmware is called **ix16-liteon-repack.bin** – rename it **ix16-liteon.bin**, this was a mistake when they released the original ix16-liteon.bin (which was the wrong file!) hence the release of the repacked version! So renaming as above will allow the file to auto load in JungleFlasher.

#### In what sequence should I switch things on/connect things?

Generally (apart from the occasional stubborn Hitachi drive) you should boot the pc, then connect the SATA, then power on the drive (by which ever method you're using, Xbox or kit!) then open JungleFlasher.

#### My VIA 6421 Raid Controller is showing up as a VIA 3249 controller?

You installed the wrong drivers for the card! Go to <u>HERE</u> download the correct drivers install those – the drive will now show as VIA 6421 (now reboot) – Now return to <u>HERE</u> and remove them as previously instructed!

#### JF has hung on Outro ..... JF just says sending Outro to port 0x????

As per the User Guide, Once sending an Outro / ATA Reset check under Drive Properties the drive should re-inquire (as opposed to being in vendor mode). If it doesnt inquire, you can try Outro again (Samsungs are particulary tetchy due to the way in which they are flashed). If you have spoofed the drive as another Manufacturer, please be aware it will inquire as the "spoofed drive"

#### I've been banned from the <u>JungleFlasher support channel</u> wtf?

You have obviously been bashing noobs, talking piracy or generally being obnoxious – the support channel doesn't tolerate that sort of thing! Start groveling and change your ways!

## **Installing Portio32**

#### If you are using XP try running the Portio32.exe installer

Include in library	with  Burn New folder		•
Name	Date modified	Туре	Size
🗼 manual_install	13/08/2009 11:32	File folder	
PortIO32.exe	19/02/2009 18:03	Application	24 KI

#### If you get an error like this (or any error saying it's not installed)



Then return to the manual install folder for instructions in the README file

Organize • Include in	library • Share with • Burn	New folder		H • 1	6
Recently Changec *	Name	Date modified	Туре	Size	
D Searches	devcon.EXE	15/11/2002 02:32	Application	55 KB	
Public     Desktop	PortIO32.dll	14/07/2004 16:51	Application extens	20 KB	
Documents	portio32.inf	13/01/2009 04:15	Setup Information	3 KB	
A Downloads	portio32.sys	14/07/2004 16:51	System file	2 KB	
Recent Places	Read_Me.txt	31/12/2008 04:27	Text Document	7 KB	

Follow instructions in that file!

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YES, YES, YES! I know, there are **NO** instructions for Vista! Basically, follow the ones for XP! Works just the same!

## Now for Win 7 ( x86 only)

Basically – open device manager, right click on the top icon!(i.e. your pc) Select "add legacy hardware"

The Device Manager	
file Action View Help	
** []]]]][]]][]]]	
4 3 Andrike	
<ul> <li>Scan for hardware changes</li> </ul>	
Add legacy hardware	
Duplay adapters	
DVD/CD-RDM drives	
Digit Human Interface Devices	
IDE ATA/ATAPI controllers	
# IEEE 1304 Bus host controllers	
Imaging devices	
) 🚍 Keyboards	
I I Mice and other pointing devices.	
> 🜉 Monitors	
Network adapters	
Portable Devices	
Port3032 - Xbox 360 \$0 Device Drivers	
Pocessors	
Sound, video and game controllers	
▲ Q <sup>2</sup> Storage controllers	
VIA V18421 RAID Controller	
Q- Virtual CloseDrive	

Then

What do you want the wizard to do?

Search for and install the hardware automatically (Recommended)

Install the hardware that I manually select from a list (Advanced)

-
=
=

< Back	Next >	Cancel

Then

Add Hardware					
Select the device driver you want to install for this hardware.					
1	Select the manufacturer and model of your hardware device and then click Next. If you have a disk that contains the driver you want to install, click Have Disk.				
(Retrieving a list of all devices)					
	Have Disk				
	<back next=""> Cancel</back>				

Click browse then give it the **portio32.inf** inside manual install folder!

🚔 Locate File	and the same is not		<b>—</b> X—
Look <u>i</u> n:	📜 manual_inst	all 🗸	G 🦸 🖻 🖽 🔻
e.	Name	~	Date modified
Recent Places	oprtio32.in	f	12/01/2009 23:15
Desktop			
Libraries			
Computer			
Network	•		
	File <u>n</u> ame:	".inl	▼ Open
	Files of type:	Setup Information (*.inf)	Cancel

## Click open then install the file!

JungleFlasher v0.1.66 beta

Thanks to:

## **Team Jungle**



(long live the Dice!)

## **CLICK HERE TO RETURN TO STARTING POINT**

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