

Step by Step  
**Installation Manual**



**MATRIX**

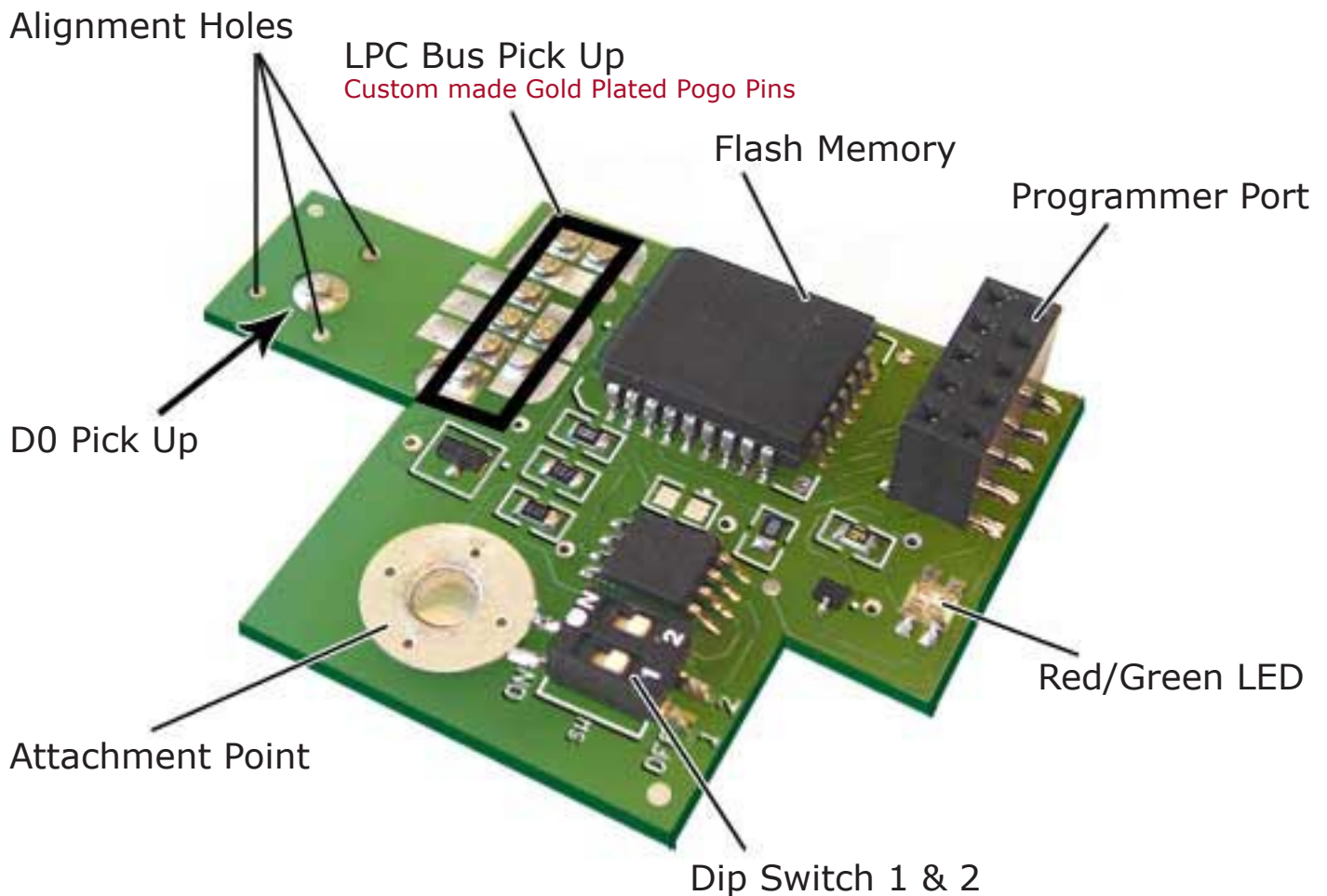
*developers kit*

Rev 1.1



# MATRIX

*developers kit*



We would like to thank you for purchasing what we believe is the most advanced development kit for the gaming industry to date. Please note this device is shipped free of any bios for legal reasons.

This manual covers the use and installation of the Matrix Chip.

The programming device supplied with this kit is based on the brilliant work of Mr. Andy Green whose GPL project "CheapLPC" can be found at:  
<http://www.warmcat.com/milksop/cheapLPC.html>.

At the time of writing, we are still in beta testing of our version of Mr. Green's `wmilk.exe` (<http://www.warmcat.com/milksop/milk.html>), we will be releasing the full documentation concerning the programming of the Matrix once our GPL software is ready. For the first few days after release it is recommended that the user obtain "`wmilk.exe`" for windows or "`lmilk.exe`" for Linux and use the command:

```
wmilk -c -a ffc00000 -v -p myfile.bin
```

where "`myfile.bin`" is the file name of your desired 256k bios image.

In accordance with Mr. Green and with GPL we will be publishing the designs of the programmer on our site.

## STEP 1

**PLEASE MAKE SURE ALL CABLES AND CONNECTORS ARE REMOVED PRIOR TO START**

Locate and remove the six torx screws as shown in Fig.1 (Note: for easier replacement of the rubber feet it is recommended to bend the feet back rather than removing them fully)



## STEP 2

Remove top cover, locate 2 torx screws (Fig.2 red arrows) and remove, detach Hard drive power plug and unclip the power cable from the plastic housing (Fig.2 blue arrows). The plastic tray containing the DVD Rom and Hard drive may gently be lifted to reveal the IDE and yellow DVD Rom power connector on the motherboard, gently detach these connectors (Fig.3 yellow and blue)

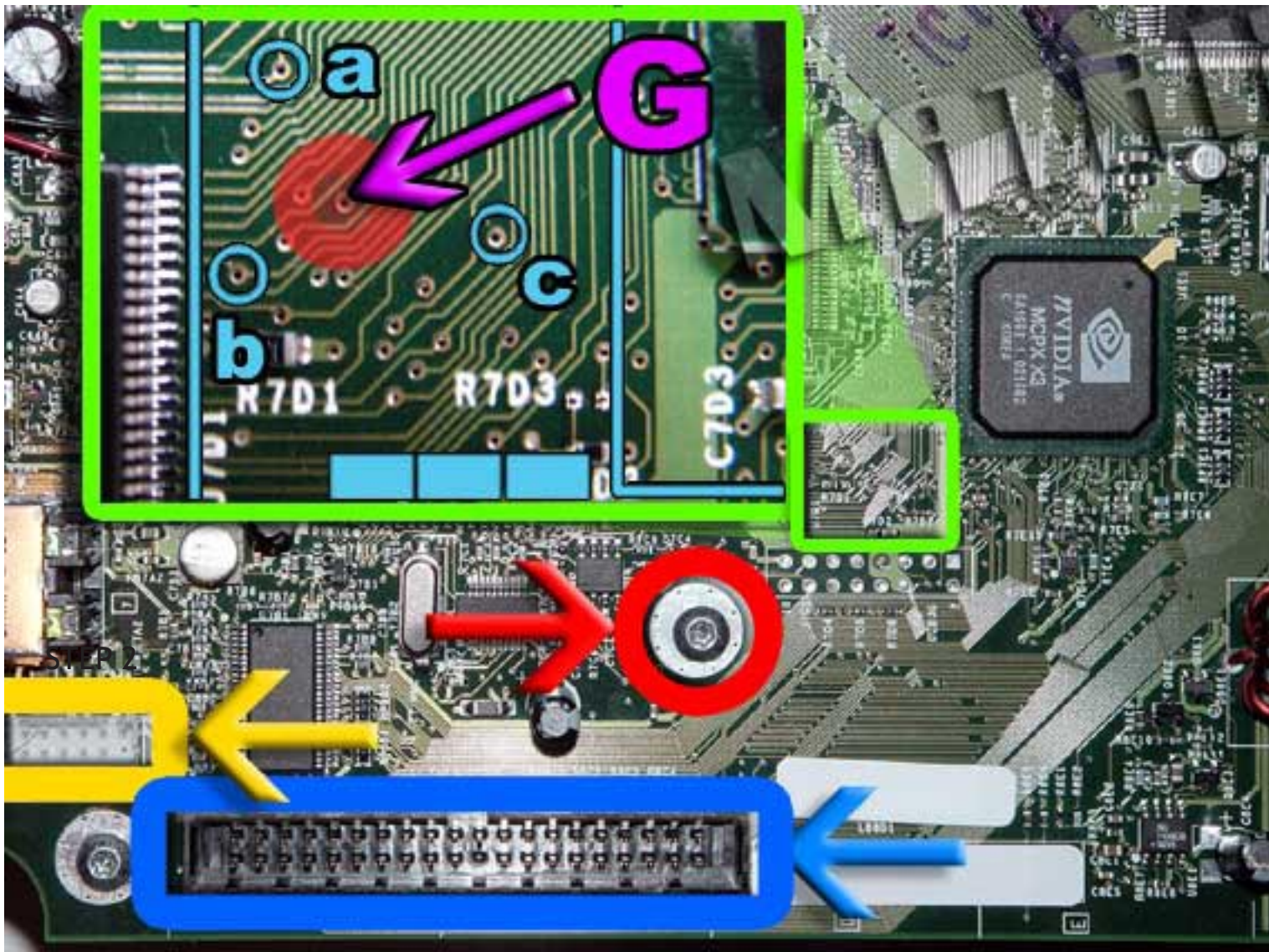




## STEP 3

Locate and remove torx screw marked with red circle in Fig.3. Observe points a, b, c, (light blue) These points will be used to align the Matrix, in such a way that the pogo pin will make physical and electrical contact with the spot marked G.

Fig.3





## Step 4

**NOTE:** The correct installation of the supplied spacer is essential to the safety of both your console and the Matrix.

Please use the supplied tape to secure the spacer in the correct position as shown in Fig.4

**NOTE:** The tape is solely used to keep the spacer/washer in the correct position. It is not meant for any insulating purposes.

A small hole can be punched in the centre of the washer (as shown) using a sharp instrument.

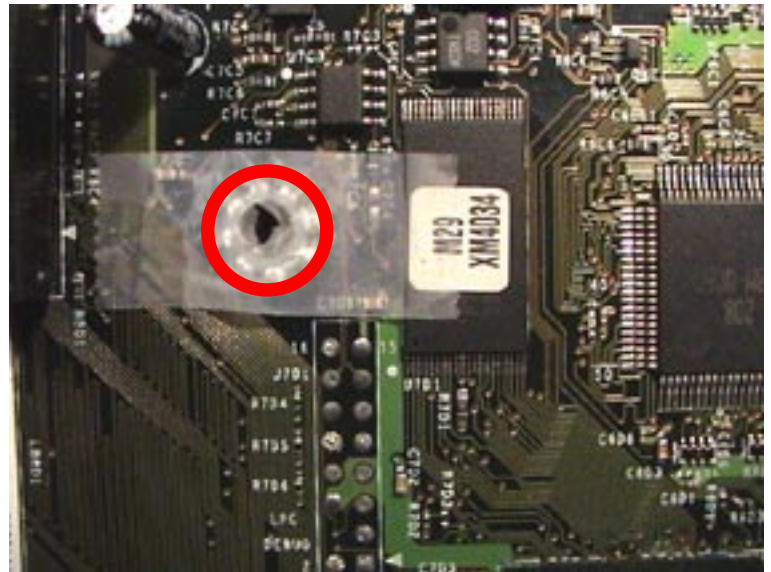


Fig.4

## Step 5

Place the Matrix as shown in Fig.5 and align points a, b, c, as can be seen in Fig.6. Replace torx screw making sure the spacer remains centred, tighten the screw whilst pressing down on the LPC pogo pins, and still maintaining the correct alignment. Please note the base thread the screw attaches to is plastic DO NOT OVER TIGHTEN THE SCREW, due to the sharpness of the pins the Matrix will lock into the position you set with relatively little force.

**HINT:** Hold the Matix as shown. Applying force with your forefinger once aligned helps when replacing the screw.

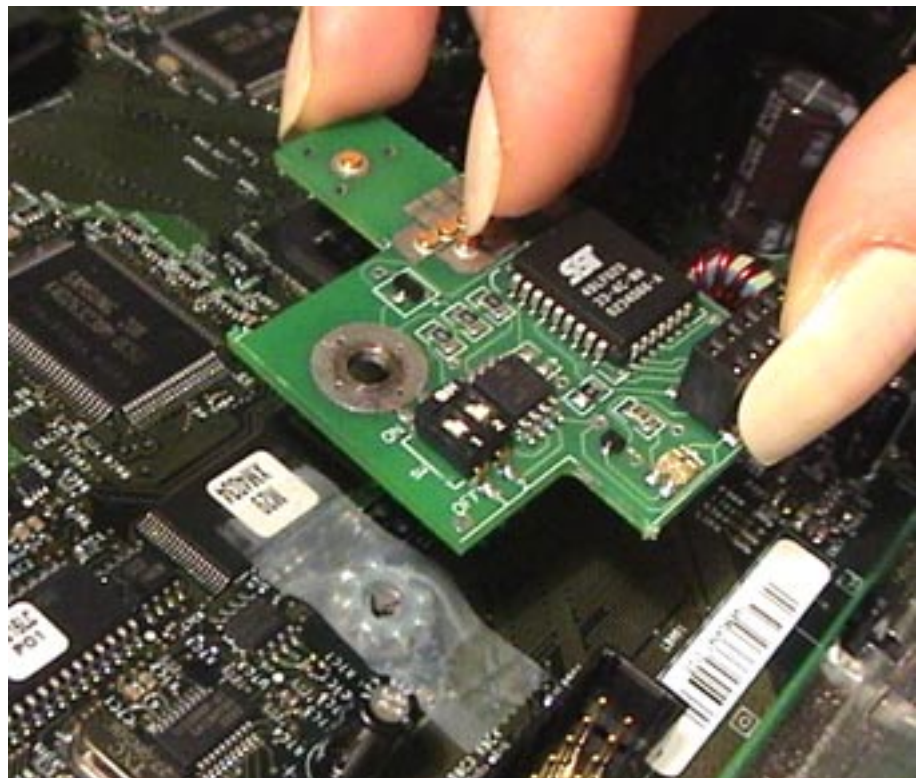




Fig.6



The above picture shows the correct alignment of the points a, b, c.

## Step 6

**IMPORTANT: WHILST OPEN THE CONSOLE HAS BARE LIVE POINTS. IT IS STRONGLY RECOMMENDED TO DETACH THE HARD DRIVE HOUSING SECTION BY REMOVING THE TORX SCREW IN THE AREA MARKED WITH THE BLUE ARROW IN FIG.2. THE HARD DRIVE HOUSING MAY BE PLACED BACK IN THE CONSOLE, THEREBY COVERING THE POWERSUPPLY AREA AS SHOWN IN FIG.7.**

Fig.7



Insure both dip switches are set to the ON position (Test/Disable mode default shipping mode). Replace the power cord (**TAKE CAUTION LIVE AREAS!!**) Turn on the power; if the alignment is correct the LED will start flashing GREEN proceed to mode selection/step 7. If incorrect it will flash RED.

### **Incorrect alignment (red flashing)**

Turn off the power and try realigning points a, b, c Fig.6 this time by looking directly above the points. Turn on the power again, if you still misaligned you may attempt to align the Matrix with the power still on, by holding it down (as shown in Fig.5) with your right hand and slightly loosening the screw with your left hand, then twisting the Matrix slightly up and down. **PLEASE USE EXTREME CAUTION WHEN DOING THIS, A SLIP OF THE SCREW DRIVER OR MOVING THE MATRIX TO FAR MAY DAMAGE YOUR CONSOLE.** When the G spot is reached the LED will flash green immediately, hold firmly and tighten the screw.



## Step 7 -MODE SELECTION

The Matrix has 4 user modes and 1 programming mode, the programming mode is automatically entered when the Matrix is attached to the supplied programming device. This mode is independent of the dip switches.

It is recommended to set the desired mode whilst in mode 1 (green LED flashing) and the power to the console on. This will insure that the Matrix remains aligned while you change mode. The mode change will only take effect on the next power up.

Mode 1 (Dip switch 1 & 2 ON)(LED: Red or Green flashing) Test/Disable

This mode is primarily used for the alignment of the Matrix during installation. It may also be used to fully disable the Matrix while in circuit.

Mode 2 (Dip switch 1 OFF, 2 ON) (LED: Green) Always On

This mode enables the Matrix to take over the original bios at all times.

Mode 3 (Dip switch 1 ON, 2 OFF) (LED: Green =Matrix, Red =Original) Swap mode  
This mode works as follows:

On every power up the Matrix "bios" is loaded indicated by the Green LED. To switch to the original bios the user must load a game and then press eject, at this time the LED will turn Red indicating that the original bios is active. To switch back the user may either turn off and on the console or repeat the above.

Mode 4 (Dip switch 1 OFF & 2 OFF) (LED: Orange flashing) Write enable

In this mode the Matrix is always active but has the ability to be flash updated via DVD Rom. We do not recommend you leave this mode on permanently, a bad update of the flash will mean you will have to reprogram the Matrix via the programmer.

Yours faithfully

The Xodus\_Team

[www.Xodus-chip.com](http://www.Xodus-chip.com)

