

Installation Instruction

d-lab.1 IPU mother board

Replacement

Dear valued MiniLab Factory customer. Thank you for purchasing original spare parts. When buying original spare parts you are entitled to receive help from us and therefore we wrote this document. We are well aware that this document will be copied and distributed throughout the world, even to the people who are buying substandard spare parts, but expect to receive the same kind of help. For those who do not purchase the original spare parts from MiniLab Factory or their authorised dealers, be warned copyright law throughout the world prohibits you from using this document. It can and will be punished to the fullest extent of the law. As well as you are entitled to receive **free** replacement license keys for your original purchased licenses. Please see the enclosed license key unlocking sticker, which has to be sent in with your license key replacement request.

This document is intended for technical personal and not the normal d-lab 1 operator or owner. This document does describe to some extent the replacement of an IPU (gigabyte 1000 Pro) with a Siemens Fujitsu (D2156-S) motherboard after a mother board crash.

IPU hardware Kit: Part No.: 10+9.8070.9060.0

Hardware modifications:

Main board:	Siemens D2156-S Intel D945G ATX board for industrial applications
Processor:	Intel P IV 3 GHz LGA-775 EMT64 with heat sink and fan
Memory:	IPU: 2 x 1024 MB DIMM DDR2 certified for MB D2156-S
NIC:	IPU: 1 x LAN (RJ45) 1000BaseT Broadcom BCM5751 1 x Intel network interface card Intel EXPI9300PT
Serial Board:	1. Moxa C104H 4 COM card incl. quadruple breakout cable 2. Sunix 4056A 4 COM card incl. quadruple breakout cable
Hard disc:	IPU: 2 x IBM/Hitachi 3.5", SATA-II 80,0GB
Framegrab.:	IPU: mvTITAN-LVDS/A V. 1.00 PCI
Graphic:	IPU: Asus Extreme AX300SE-X TD PCI-Express
Cooling Fans:	IPU motherboard cooling fans 3 Fans

Replacing the IPU mother board :

Tools required: **Note:** Switch off the MAIN breaker
Phillips screwdriver, straight screwdriver, side cutter, some cable ties.

1. Remove the white cover behind the monitor (this will expose the MPU and IPU PC's connections)
2. Remove all cables from both PC's, by unplugging them or using the screwdrivers to loosen the screws.
3. Remove now the 6 Phillips screws, which hold the PC frame in place.
4. Pull the unit forward, about 2-3 inches. Be careful do not pull too hard.
5. Disconnect now the MPU and IPU from the power connections.
6. Remove the IDE cables from both units, (use the paper tabs to pull on the plug)
7. Remove the 10 pin gray plug from the ON / OFF (timer light) switch.
8. Remove the USB cable from the card reader (File Print option).
9. Pull out the unit carefully.
10. You do not have to remember the positions of the cards, new motherboard / new layout.
11. Remove the Network card from the IPU motherboard.
12. Remove the Graphics card from the IPU motherboard.
13. Remove the LVDS card from the IPU motherboard.
14. Disconnect the little green plugs on the bottom left of the MPU motherboard.
They are labelled on the plug (LED power on, HD-Led, PWD on, reset).
15. Remove the IPU motherboard from the mounting bracket using a Phillips screwdriver.
16. Mount now the NEW Siemens motherboard, using the Phillips screwdriver.
17. Mount now the two DIMM's (Memory). (Blue sockets, the black once are not used)
18. Mount now the NEW CPU to its socket by lifting the lever.
19. Mount now the NEW Cooling fan (you might have to loosen the locking pins first).
20. Mount now the new IPU cards (LVDS, LAN, and Graphic) to the new IPU motherboard. Please see diagram of IPU mother board on the following pages.
21. Connect now the little green plugs to the mother board (power on, HD-Led, PWD on, reset). (see diagram below) (Make sure that the ribbon cable is routed in a save manner).
22. Remove now the OLD IPU IDE hard disks from the mounting bracket by loosening first the black plastic screw, between the three hard disks.
23. Exchange now the old IDE hard disks with NEW STA hard disks supplied with the kit.
24. Connected the two red STA cable to the hard disks.
25. Mounted the NEW hard disks to the machine. Use the black thumb screw to secure the two hard disks.
26. Inset now the PC main frame into the guide rail and push it half way in.
27. Plug now the MPU ATX power (20 pin) cord into the board, the MPU-CPU fan (yellow, black)
28. Connect now the IDE MPU hard disk into the IDE port 1 red the CD ROM into the IDE 2 white port.
29. Plug now the IPU ATX power (20 pin, four pins will be left open) cord into the board, the IPU-CPU fan (yellow, black)
30. Connect now the STA hard disk 1 into the STA port 1, the STA IPU hard disk 2 into the STA port 2,
31. Reconnect the 10 pin gray plug to the ON / OFF switch (timer light).
32. Reconnect the USB cable to the USB port on the mother board (see diagram following pages). [File print option](#).

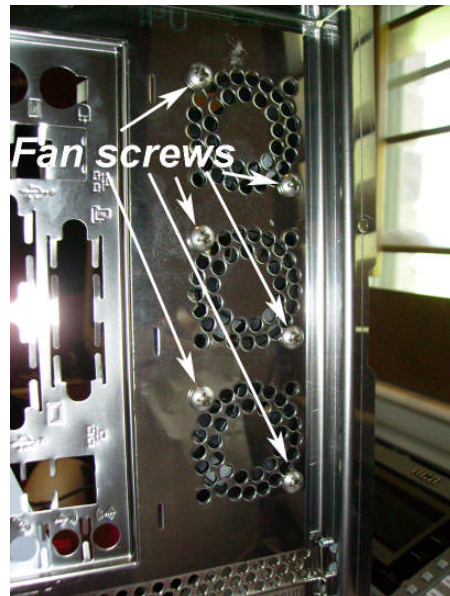
Note: Because we had to upgrade some of the cards from PCI to PCI express the labels might not correlate to the actual position of the card. Please make sure that you plug in the right cables to the correct card on the IPU PC. Please re-label the connections.

Cooling Fans IPU:

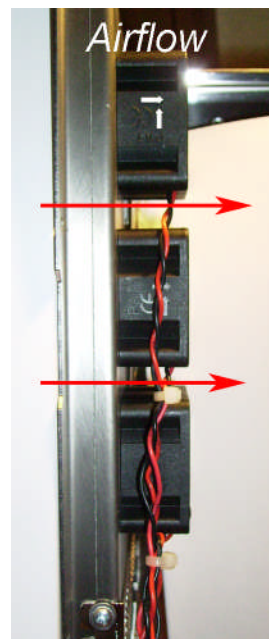
Please see below pictures how to mount the cooling fans. Please make sure that the air blows **into** the PC (pic no.3) shown direction. Cooler air should be blowing INTO the PC, from the side. While the hot air vents at the top. It is important that we create airflow through the PC housing. Please note that some machines have already the below fans installed therefore they do not have to be re-installed. Only the new Siemens / Fujitsu mother board might require the cooling fans.



Pic 1



Pic 2



pic 3

Quick check:

MPU: All cables are marked MPU

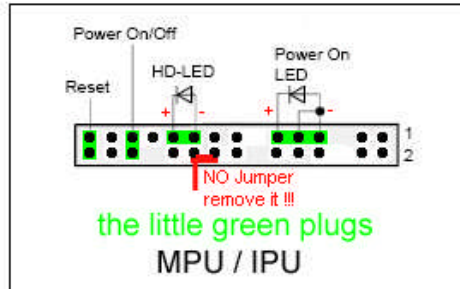
1. Insert the four (4) pin plug (yellow black)
2. Insert the ATX power supply plug (Note: the plug is shorter than the socket). You will end up with four (4) open sockets on the top! Plug uses the lower part of the socket. (new style)
3. Or insert the ATX power supply plug (old style)
4. Plug now the STA (red) hard disk cable into port 1 on the motherboard. While the CD-Rom drives cable will be inserted into the blue socket on the mother board. (new MPU style)
5. Or Insert the IDE hard disk into the red socket and IDE CD drive cable in the white IDE socket. (Old style motherboard).
6. Insert the USB cable from the optional card reader into the ext. USB port on the motherboard. (New style).
7. or insert the USB cable from the optional card reader into the top yellow USB socket (old style)
8. Cooling fans connected

IPU: All cables are marked IPU

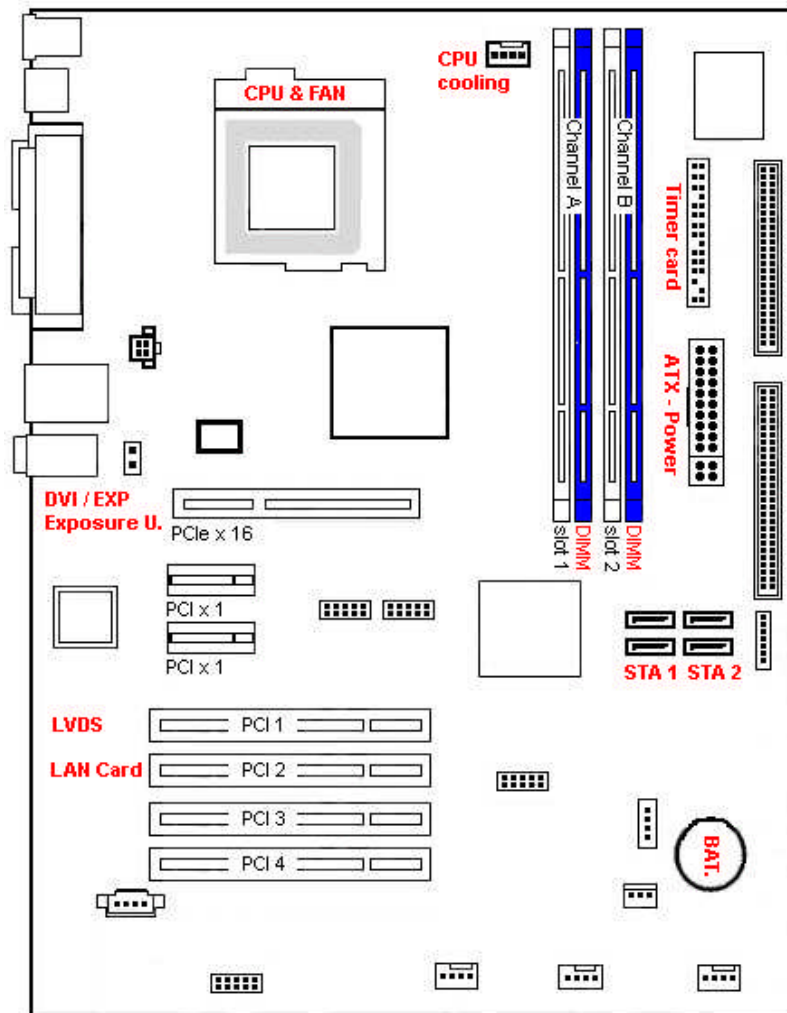
1. Insert the four (4) pin plug (yellow black)
2. Insert the ATX power supply plug (Note: the plug is shorter than the socket). You will end up with four (4) open sockets on the top! Plug uses the lower part of the socket.
3. Plug now the two STA (red) hard disk cables into port 1 and 2 on the motherboard.
4. The blue IDE socket remains open on the mother board.
5. Connect now the grey 10-pin timer card cable into its socket behind the on reset switch.
6. Cooling fans connected..

Diagrams:

IPU mother board / timer card connectors:



IPU mother board connections:



Switching on the d-lab1:

Note: The new mother board and its new hardware require different drivers. We have to believe the MPU was in working order before we had the IPU mother board failure. Therefore we can assume that the file system is intact, and does not have to be reloaded. If this is the case we can / have to delete all the old ***.done** files from the MPU hard disk. As mentioned before we have to add some new drivers for the graphic / LVDS and network card. The new drivers can be found on the Root directory of the enclosed Version 3.10 H. It has been noticed that sometimes not all files are loaded into the correct directories. The new drivers are backwards compatible therefore you do not have to load V 3.10 H.

If the d-lab 1 will not start up, you might have to reload the whole software package MPU / IPU using the installer V 2.02 A and the new V 3.10H. Please make sure that you have a current back up and LUT files as well as your machine (FP.dat, PA.dat and PP.dat) data files and your License keys before you reload the software.

d-lab. 1 start up:

Tools required: keyboard, mouse either USB or serial, V 3.10 H d-lab 1 software disk, or CD with treiber.exe loaded.

Switch on the machine, using the main breaker. You might have to press the ON button to start the machine. You should see the MPU come to live, the CD-ROM drive will light up as well as the monitor.

1. Wait until you see the two little girls eating ice cream. Now press the **<ALT>** and **<F12>** key a window should pop up and ask you if you what to disable the Auto Int. function. Press **<YES>**
2. now press both **<ALT>** keys (left and right of the space bar) this will open the watchdog window.
3. Now click on **<control>** this will expand the watchdog window.
4. Now click on **<explorer>** and push the **<execute>**, this will open the standard windows explorer window.
5. Delete the *.done files **C:\d-lab1\.....\export_imagepc*.done** (see repair manual 6.5.1.2)
6. Insert now the CD-ROM marked V 3.10 H into the CD-ROM drive.
7. Double click on **<Treiber_Update.exe>**, the files should be copied to the below directories.

File locations:

Please check!!

bzImage	C:\ExportImagePC \ tftproot\ bzImage
allocator.o	C:\.....ExportImagePC \ export_imagepc \ L010-TitanKernelModules \ allocator.o
titan.o	C:\.....ExportImagePC \ export_imagepc \ L010-TitanKernelModules \ titan.o

8. Close now the explorer window, the watchdog should be still running the background.
9. Press the **<ALT>** and **<F12>** key a window should pop up and ask you if you what to **enable** the Auto Int. function. Press **<YES>**
10. The d-lab1 software should reboot now. If not hit the ON-reset button.

Note: because we delete the *.done files, this forces the IPU to be re-imaged. We are loading the whole Linux image to the IPU hard disks. This reload can be seen when you either connect a monitor to the graphic card on the IPU (VGA port) or move the d-lab 1 monitor connection from the MPU to the IPU. This reload can take up to 30 mins.....

Errors during a software load.

MPU:

It has been reported that the int. and ext. Network (LAN) card might have the wrong address assigned to it. Please see in the below software installation instruction, how to set the Network (LAN) address.

It has been reported that some mother boards will not boot. Due to an error in the BIOS settings, the **<halt on keyboard>** or **<halt on all errors>** had been set to on.

IPU:

It has been reported that some mother boards will not boot. Due to an error in the BIOS settings, the **<halt on keyboard>** or **<halt on all errors>** had been set to on.

Hard disk:

A Linux image file load could not be loaded, because one or more files had been set to read only. Therefore re-format the hard disk. To re-format use the MPU PC, you will have to delete the done files again.

Switch off during boot:

If your IPU switches on, but after 15 to 25 sec it switches off. Make sure that you reverse the plug on the Power on LED socket. The polarity is important on this plug! Most of the time both wires are grey, therefore we do not know for sure which end is Plus(+) while the other is (-).

BIOS :

It has been reported that an incorrect BIOS setting had been loaded on mother boards. Due to the nature of our business we never know which BIOS we have to load. Please insert the 1st boot CD (MPU disk 1), after the boot you will see the boot menu. Select the BIOS settings (2) and load the correct mother board BIOS.

Please note: not load the IPU BIOS to the MPU or the MPU settings on the IPU mother board. No harm will occur, but your system will not boot correctly.

Installing the d-lab. 1 windows operating system.

The d-lab. 1 installer software comprises of 2 CD-ROMs. The new V 2.02 A installer supports the current system configuration and is downward compatible.

Booting from CD.

1. Connect a keyboard and a mouse to the MPU PC. To start the installation, use the 1st CD-ROM disk. When using a new Siemens motherboard, you can select the boot menu by pressing the **<F12>** key where you have to select the CD-ROM as the 1st boot device

You might be prompted to enter a password, if so use “ **AGFA** “ to enter the boot menu.

2. Booting from the 1st CD.

After a successful boot from the installation CD-ROM, a menu is displayed from which you can select from the following items:

1. **Installation of the operating system**
2. **Updating of the BIOS and the BIOS settings**
3. **Cancel installation**

3. Installing the operating system (windows 2000).

After selecting menu item.

<1...Windows installation>

Installation is started.

4.

A Ghost system screen is displayed.

Note: You cannot enter any data using the keyboard, until prompted.

The progress bar will not MOVE (blank).

Note: There will be a message displayed, in German approx. 10 minutes later, which will prompt you (in German) to insert the 2nd CD-ROM disk.

5. Insert now the second installation disk and confirm the message by using the **<Enter>** key, the installation will continue.

After the completion of the installation of the 2nd installation disk, the system will automatically restart.

6. Windows will restart. Windows will now run some script files and detect all new hardware and will install the required drivers.

After completion of the set up phase, the system will restart and reboot into the d-lab 1 desktop screen.

7. Check the TCP/IP setting of **each** Network card!

LAN int. (Single Network Card)
(Example, *Intel(R) Pro/1000 MT Desktop.*)

TCP/IP settings: 192.168.64.1
Subnet mask: 255.255.255.0

LAN Ext. (On board Network Card)
(Example, *Broadcom Nexttreme Gigabit.*)

TCP/IP settings: 192.168.1.10
Subnet mask: 255.255.255.0

Confirm any changes with “**YES**” you want to **overwrite** any existing adapter. It has been noticed that wrong IP addresses have been assigned to the installed network cards. This will cause the IPU not load.

Installing the d-lab. 1 main software V 3.10 H or V 10.00 H

1. Insert your main d-lab. 1 software into the CD-ROM drive.
2. Select now the **<run>** command via the start menu.
3. Use the browse function
4. Look for the CD-ROM drives normally (E:\..)
5. go to E:\version\MainSW\instal\DLAB1_10.00(C to G)_setup8\setup.exe
6. Click on **<open>**
7. Click now on **<okay>**
8. This will now start the installation process.
9. Click on **<Next>**, then on **<Next>**, make sure that *release* is checked, then on **<Next>**
10. make sure that *dlab PC* is checked Click on **<Next>**
11. When asked do you what to copy the *firmware* click on **<YES>**
12. make sure that *DB Install* is selected in the radio button Click on **<Next>**
13. You should see now the programs, which will be downloaded. Click on **<Next>**
14. You will see now a progress bar loading the software.
15. A windows window will be displayed requesting you to restart the PC, Click on **<Finish>**
16. The d-lab.1 PC will shut off and restart.
17. The program will stop at the Windows desktop. Click now on the **<Yellow U-turn>** sign.

After pressing the yellow U-turn sign the main software will be loaded. Again you will see some scripts running. Like the SCM card reader will be detected (if installed). You will see the two little girls with the ice cream screen again. You will notice the ++++++ connecting to image PC ++++++
You might have to wait for up 30 min before you see another screen. If you used a different main Software it is necessary for the Image PC (IPU) to be reloaded from scratch and this can take a little time. So be pertained and let the machine does its magic.

After the Image is up and running you might see some firmware downloads again wait until the d-lab.1 has finished the software downloads.

At the end you will be rewarded with the normal AGFA GUI interface.

Now take your safely stored back up CD-ROM and load the machine data and the configuration files.

Call up the service screen:

Note: You will have to import the Index layout files via the explorer window. The same applies for the Lut files and the combi print layout files.

1. load the index print layouts from your back up CD to the index folder on **D:\data\index**
2. load the combi print layouts from your back up CD to the combiprint folder on **D:\data\combiprint**
3. Copy now the all the LUT files (9) from your backup CD to the Luts folder on **D:\data\luts**
4. Copy the same (9) files to the **D:\sv_in_dir** folder.
5. Copy one more time the same (9) files to **C:\d-lab.1\%current version%\export_mainPC\Luts** folder. Windows will ask you if you want to over write some files, confirm with **<YES>**.
6. Close now the service GUI.

Loading the machine and product configurations:

Note: your backup CD-ROM is still in the CD-ROM drive. We will now recover the old machine data as well as your old print channel data. If you know how to do it you can skip this part, if not please follow the steps below. Remember a machine back should always be done when you have made a major change. Therefore we recommend doing a back up at least once a month. You should alternate between a CD-ROM and the local PC backup.

Reloading your settings:

1. click on **<settings>**
2. click on **<load settings>**
3. check the **<machine settings>** and **<Product config>** button
4. Click on the **<CD icon>** on the left. Your back up data will be displayed within the backup window.
5. click now on the last know good back up.(selection will be high lighted)
6. click now on **<load>**
7. confirm the over write with **<YES>** this will prompt an info screen (settings being loaded)
8. you will have to confirm the next info screen with **<OK>**
9. The machine should automatically restart. If not press the **<ON Reset>** button behind the monitor

Your print channels and all your machine setting should be loaded. You should be able to use your machine with film in standard mode, reorder, and networking mode.

If you use an image box or other programs which communicate with the d-lab.1, you will have to configure the Network settings under **<settings>**, **<machine settings>**, and **<network settings>**. If you need help please contact one of our service departments throughout out the world.

License keys reissued, only in a case where the MPU hard disk had to be replaced:

Note: We had to replace the MPU hard disk, all of your license keys became void and therefore have to be reissued. Please use the enclosed form and send it either via fax or e-mail to our head quarters in Germany. We will be glad to reissue the license key, which you already have purchased in the past. This is another reason why to purchase genuine spares from us.

We hope that this document was helpful. If you have a questions or comments please feel free to share them with us.

Your,

Technical Service Team

License Key Request

Note:

When purchasing original spare parts from MiniLab Factory or there authorized distributors your are initialed to receive your previously purchased license keys for free. If you are not using original spare parts from MiniLab Factory you will not have receive the special parts seal. Therefore we reserve the right to charge a handling fee for your replacement license keys. We believe that you will understand that only original spare parts will unsure that your machine will work in its designed specifications.

Lab Name: _____

Address: _____

Address: _____

City: _____

Return Fax No.: _____

Machine ID: _____

Machine FN: _____ Model: d-lab. 1 d-lab. 2 or 3

Standard license keys (US only) Check here

Index import
Combi / Passport

Optional license keys:

FilmonCD_ON_board (d.lab 1 only)
Fileprint_on_board (d-lab 1 only)
Scratch_corr_slide
Slide_Film_unmounted
Click_rate_enable
Red_eyes_correction

Manufacture seal sticker (part of the original CPU kit)

Without this sticker we reserve the
Right to charge a handling fee for
Issuing the license keys.

Put sticker here: