

D21 Mic/Line In Card

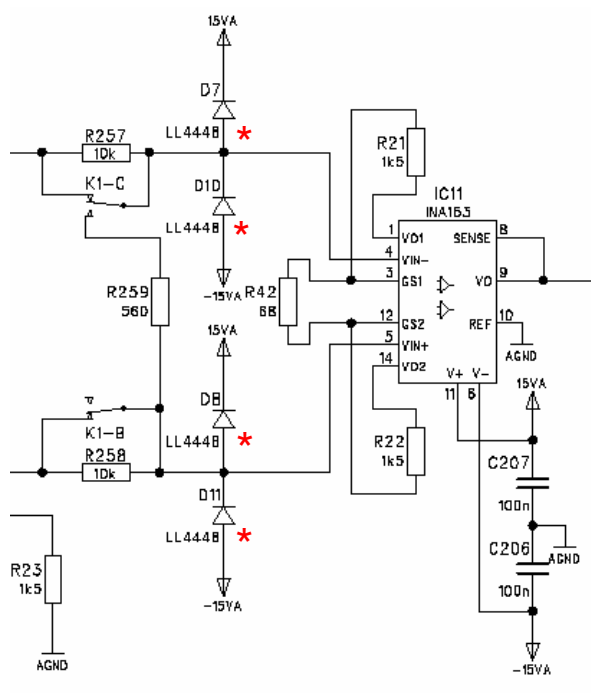
1.949.427.00/81

The input of The Mic/Line In Card may be damaged when phantom power is switched on and the input signal is short circuited. This may e.g. happen when using patch bays with connectors causing a temporary short circuit during the plugging of the connector (was reported from bantam connectors).

A first modification (Index 00 Rev "B" and Index 81) improved the problem, a later second modification (Index 00 Rev "C" and Index 81 Rev "A") fixes a resulting problem with clicks at a particular gain position.

Studer ships Index 00 rev "B" cards since 10.10.2005
 Index 00 rev "C" and Index 81 rev "A" cards since 30.1.2006.

In applications where the phantom conditions can't be avoided, the index 00 boards should be modified. Please contact the Studer Customer Support in such a case, for arranging a modification.



Modification of 1.949.427.00

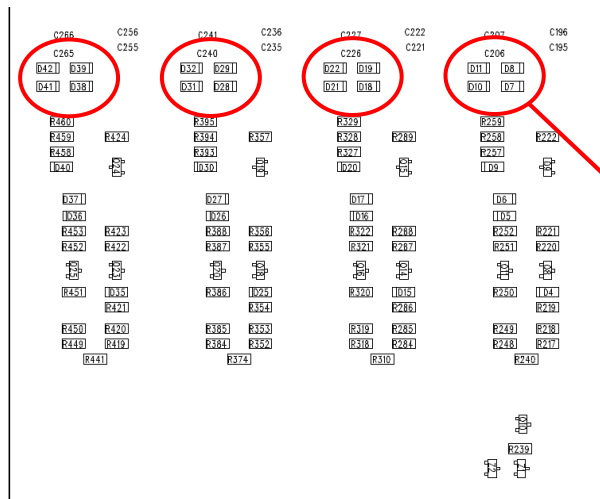
(00A -> 00B -> 00C)

There are 2 diodes to be replaced for each of the 4 inputs (see D10, D11 for CH1 at left).

Modification of 1.949.427.81

(81 -> 81A)

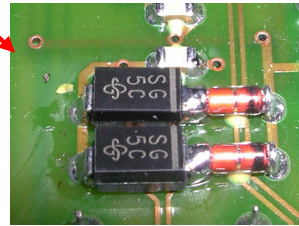
All 4 diodes of an input are replaced (see D7/10 and D8/11 for CH1 at left)



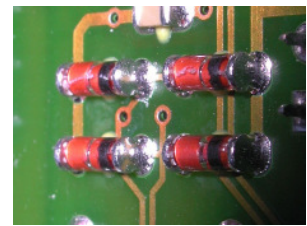
1.949.427.00 Bottom/Front

Version 1.949.427.00 Revision B/C

Upgrade with 8 diodes / board
 Rev. "B" with new diodes SS14
 Rev. "C" with new diodes S1B (Order No 50.60.8003)



Rev B/C

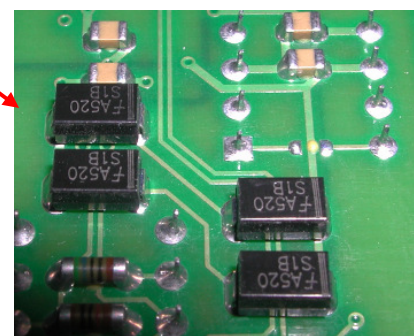


original 4448 diodes

Please note : The new diodes are larger and need to be soldered to the 4448 diode next to it.



1.949.427.81 Bottom/Front

Version 1.949.427.81 Revision A

Upgrade with 16 diodes S1B (Order No 50.60.8003) / board

Vista 8 Keyboard 1.949.155

In a few Vista 8 systems, illegal characters or sequences were created when fast typing in names and numbers. The problem source is the keyboard layout of the illumination, which can lead to crosstalk to the keyboard matrix. The new index 82 keyboard with new layout fixed the problem.

The workaround at the right (Revision A cable) will fix it for the older index 00/81 boards → cutting the illumination supply on cable pins 5 and 6



Keyboard Replacement

The Vista 8 keyboard 1.949.155 is mounted in a drawer and is attached to the control bay with a flat ribbon cable 1.023.102.99. If the keyboard needs to be replaced, the drawer needs to be unmounted as follows.

1. Switch off the desk and open the Control Bay above the keyboard drawer (Fig 1)
2. Disconnect the flat ribbon cable from the Controller Board, remove the cable attachment (1a) and the screws (1b) which fix the drawer to the desk chassis. Take care to hold the drawer !
3. Place the drawer onto a flat surface (Fig 2) and remove the keyboard cover with the board with the top and bottom screws (2a)
4. and finally unmount the keyboard from the cover (Fig 3a).

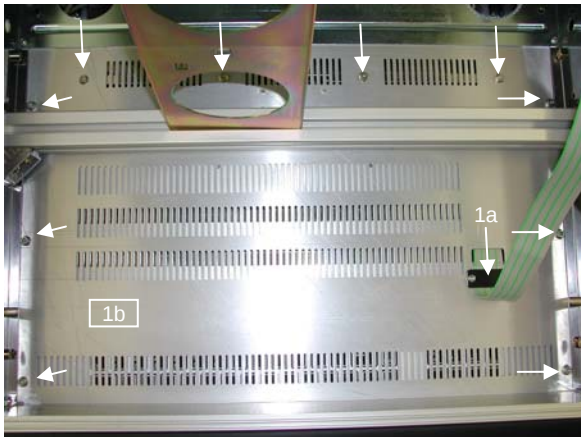


Fig.1 Top view with open bay

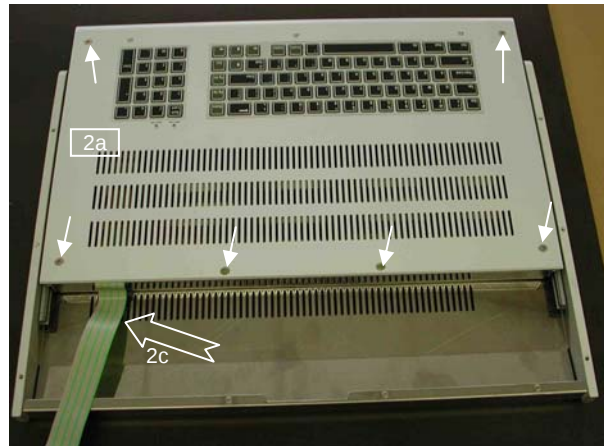


Fig.2 Keyboard drawer

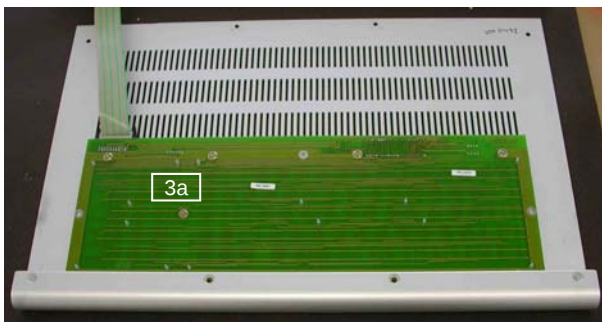


Fig.3 Keyboard mounted on cover

5. Proceed in reverse order after replacing / repairing the keyboard. Take care that the flat ribbon cable is properly laid into the drawer.

Please note : there were a few drawer bottom frames with mirrored cutouts, so that the ribbon cable is moving over the edges (fig 2c). It is recommended to attach an isolation sheet on the bottom to protect the cable. Suitable sheets are available from Studer product support on request.

DSP Core Configuration

The D950 Dsp Core is currently shipped with a combination of the following boards :

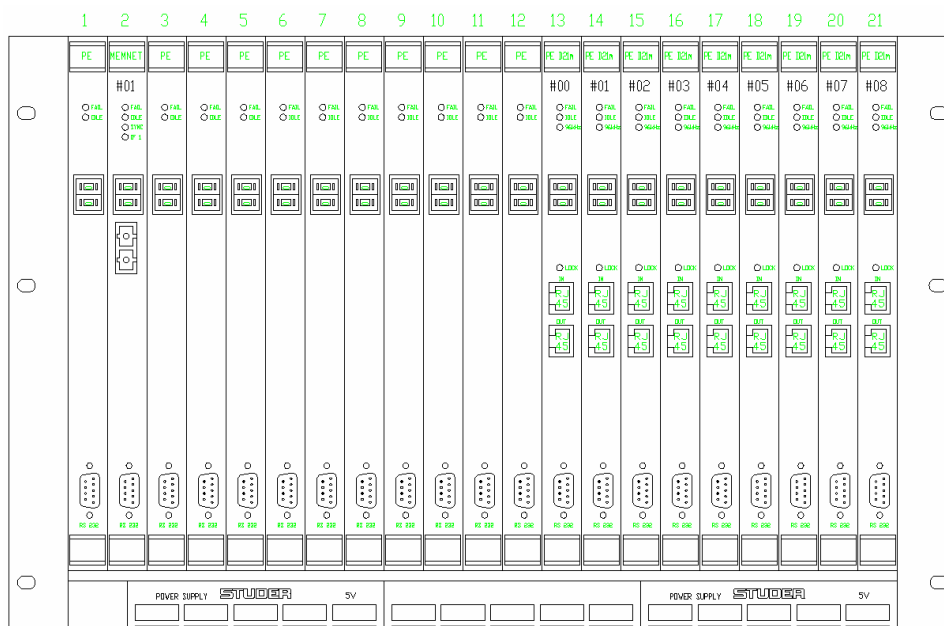
- PEAES Board 1.950.605.26
- PE21 1.950.606.22
- PE Board 1.950.610.26
- Memnet Board 1.950.620.26 / 1.950.621.20
- Madi Board 1.950.615.27 / 1.950.616.20

Card Configuration

The following card configuration is recommended, from left to right:

- PE in slot 1, only for PE card in full core configurations, else empty
- Memnet : in slot 2
- MADI following Memnet card, if possible in every second slot for better cooling
- PE following MADI cards
- PEAES, PE21 following PE cards

Example :



Compatibility Issues

- The new Madi and Memnet Boards 1.950.616 / 621 require D950 V3.0 software revision and configurations built with mn020522.exe.
If used with V2.5 at least the Mn020522 library has to be used for building configurations. Please note that in this situation the boardtype of 1.950.616 / 621 will not be displayed correctly in the surveyor..
- PE21 boards require D950 V3.1 software revision (configurations built with mn020809.exe), as well as Boot Firmware 1.950.930.26
Index 26 Boot Firmware is also shipped on all other boards since January 2003 for manufacturing reasons, but there is no need to upgrade boards with index 25, as they are compatible.
- PE and PEAES cards revision 25 and 26 are equivalent in specifications - the only difference is a modification for an IC which had to be replaced with a new version.

DSP Board Revisions

PEAES Board 1.950.605.26

Index 24	minimum revision since Dec 1998	with Boot Firmware 1.950.930.24 CC Firmware 1.950.922.22
Index 25	Jan 2000 - Hardware modification : pulldown resistors for address switches	
Index 26	Nov 2002 - Layout redesign for compatibility with particular new IC revisions	with Boot Firmware 1.950.930.25

PE21 1.950.606.22

Index 20	initial release	
Index 21	Nov 2002 - general improvements and redesigned board	with Boot Firmware 1.950.930.26
Index 22	Jan 2005 - Layout redesign for reliable 96kHz operation in large systems	

PE Board 1.950.610.26

Index 24	minimum revision since Dec 1998	with Boot Firmware 1.950.930.24 CC Firmware 1.950.922.22
Index 25	Jan 2000 - Hardware modification : pulldown resistors for address switches	
Index 26	Nov 2002 - Layout redesign for compatibility with particular new IC revisions	with Boot Firmware 1.950.930.25

Madi Board 1.950.615.27 / 1.950.616.20

Index 24	minimum revision since Dec 1998	with Boot Firmware 1.950.930.24
Index 25	Jul 1999 - fixes ‚MADI shifting bug‘, allows sync configurations up to 300m	with MADI A Firmware 1.950.928.22 with MADI B Firmware 1.950.929.22
Index 26	Jan 2000 - Hardware modification : pulldown resistors for address switches	
Index 26 A	Mar 2000 - Bug Fix (muted MADI out) with R33 100 -> 33 ohms	
Index 27	Apr 2001 - Improved MADI Input reliabilty	with MADI A Firmware 1.950.928.23 with MADI B Firmware 1.950.929.23

1.950.616.20 Layout redesigned, improved reliabilty in large systems

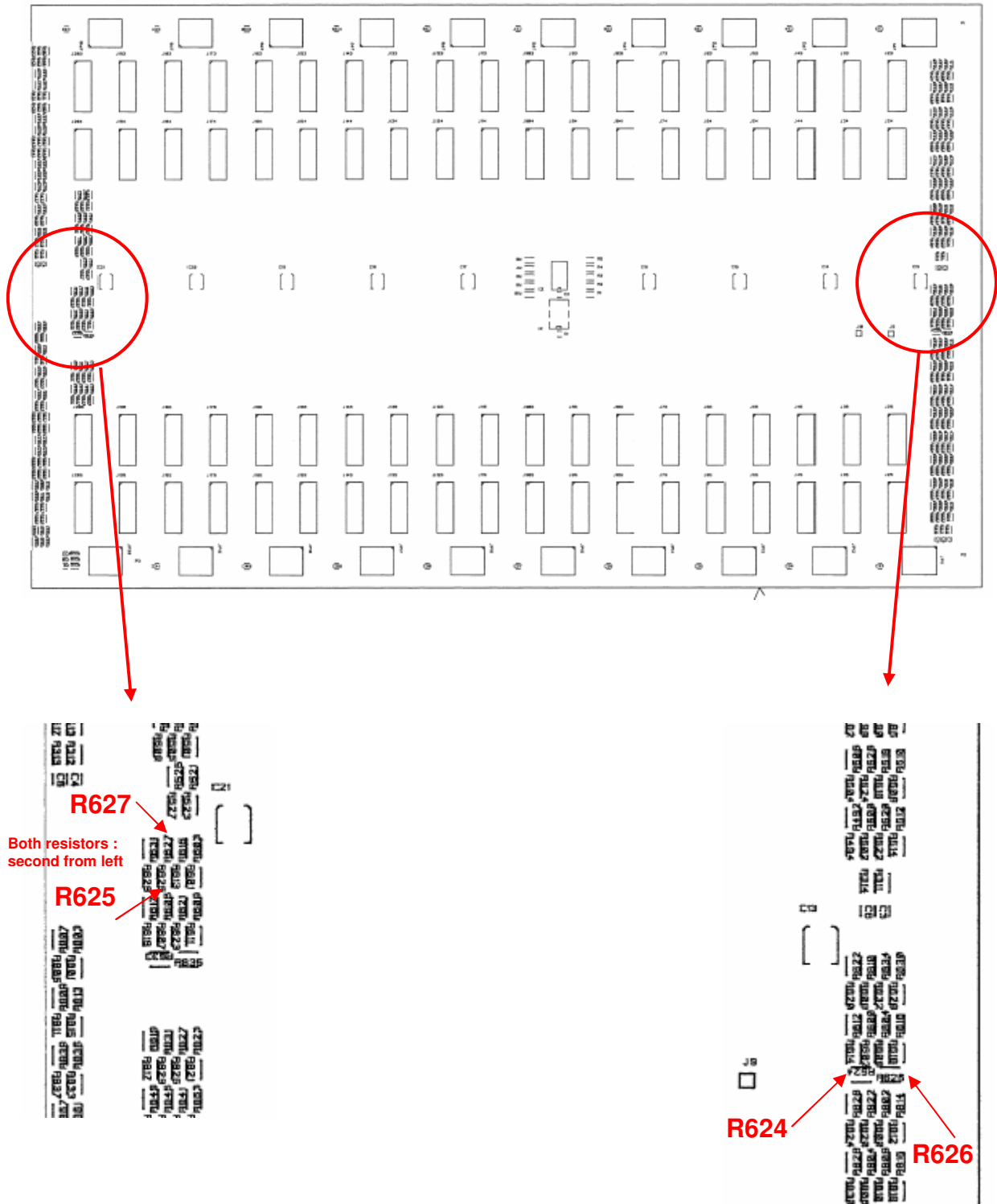
Memnet Board 1.950.620.26 / 1.950.621.20

Index 24	minimum revision since Dec 1998	with Boot Firmware 1.950.930.24
Index 25	Jul 1999 - Improved reset and resync	with LINK B Firmware 1.950.926.22
Index 26	Jan 2000 - Hardware modification : pulldown resistors for address switches	

1.950.621.20 Layout redesigned, improved reliabilty in large systems, 96kHz proof, incl. Redundancy Supply Powerfail support

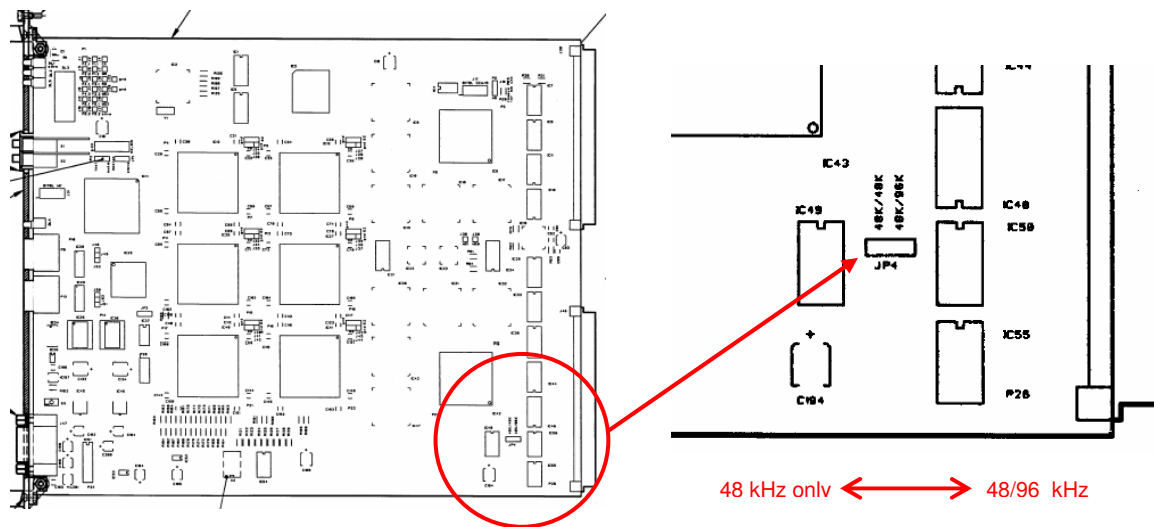
Core Backplane 1.950.650.00

- When using more than 1..2 PE21 cards in a DSP Core, the backplane needs to be modified to 1.950.650.00 Rev A (shipped since Jun 2003) :
R 624 and R 625 change from 330R to 220R
R 626 and R 627 (470R) are removed
- A revision "B" modification (Sept 2004) improves reliability in fully equipped DSP cores by reducing pulldown resistors. Backplane and DSP Rack 1.950.692.81 are arked with a revision "B" label.



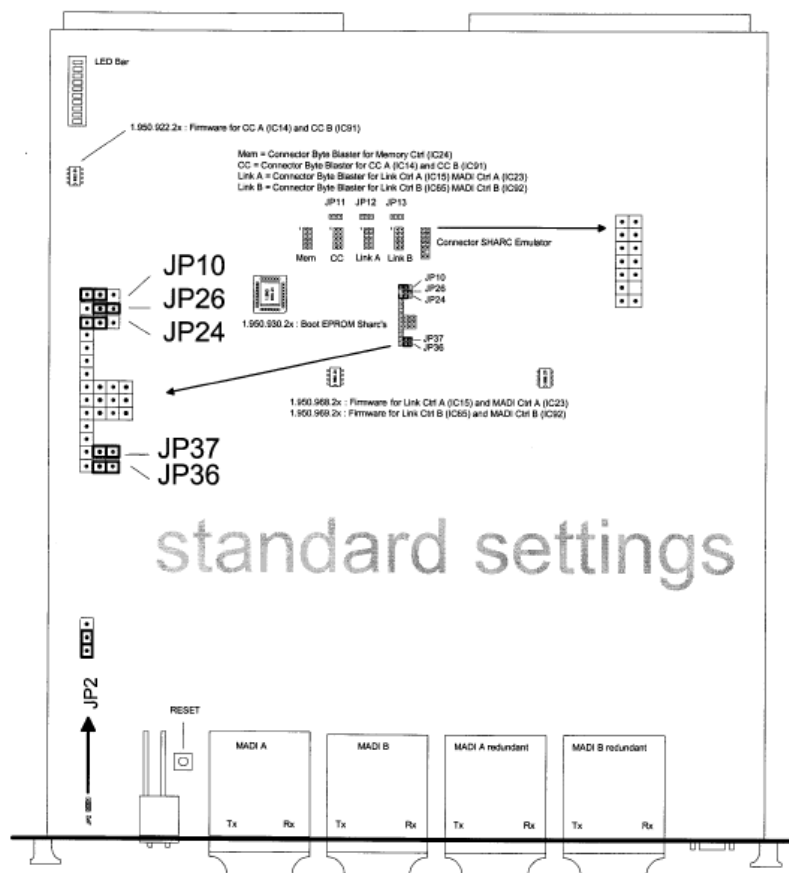
PE21 Board 1.950.606.22 Operation Mode Jumpers

The PE21 DSP card can be configured to work with 48kHz sampling rate only, or allow 48/96 kHz operation. The mode is set with the indicated jumper JP4 :



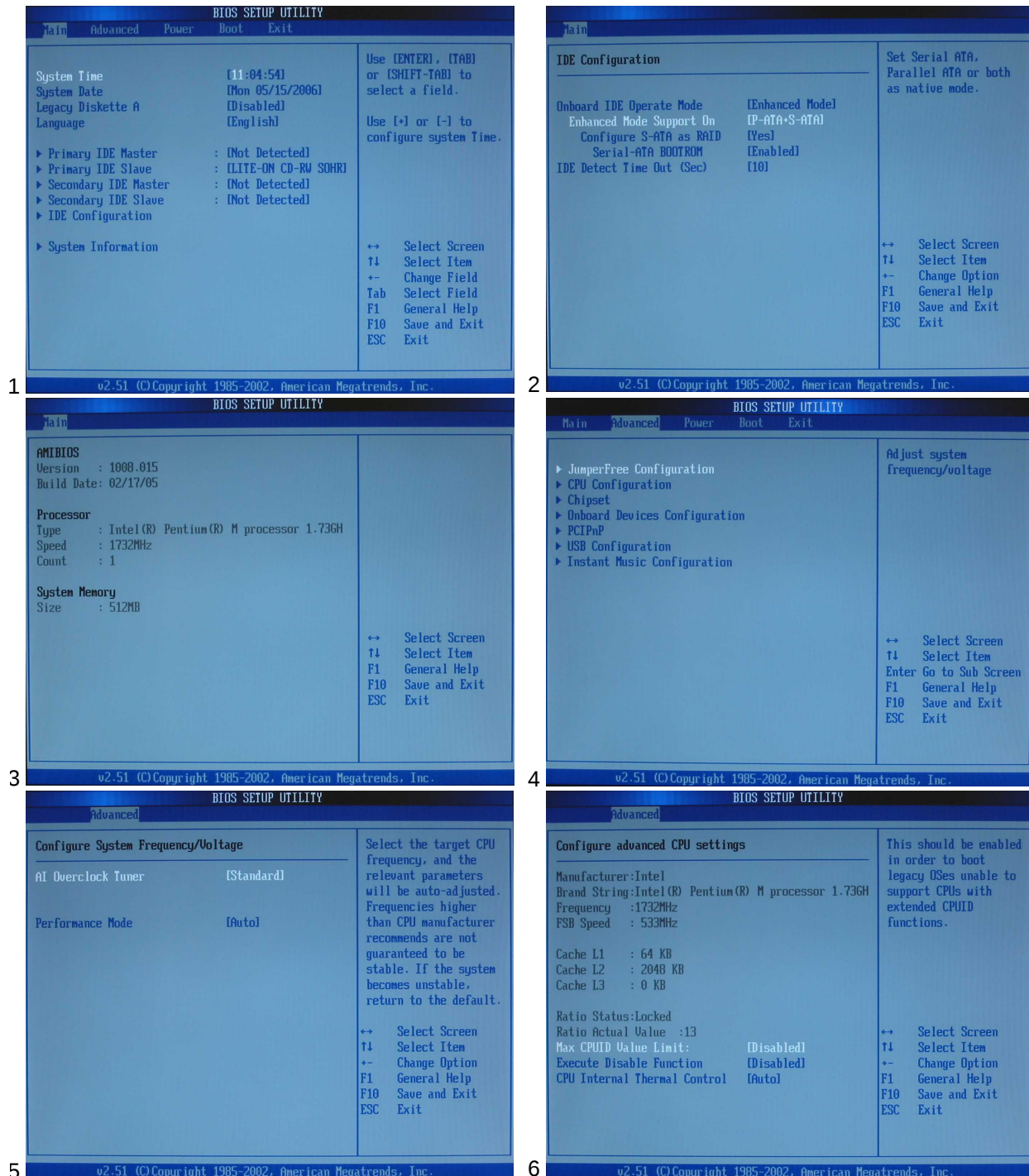
MADI Board 1.950.616.20 Standard Jumper Settings

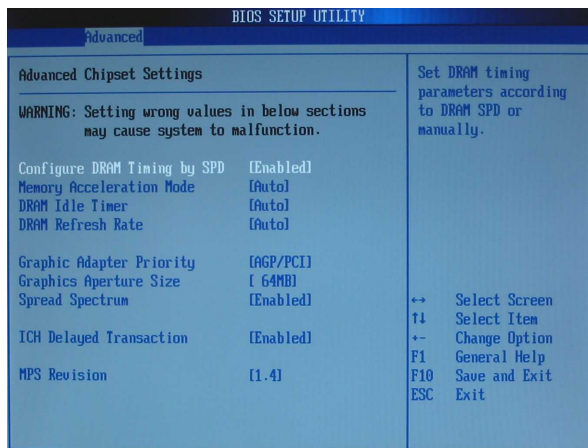
There are no user settings for operation, all settings are fixed as shown below. The position of JP2 is not important in standard operation.



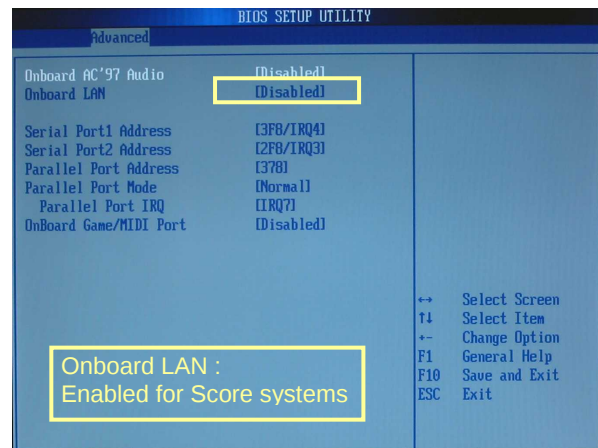
BIOS Settings for PC Type 2 - ASUS P4P800 SE

Please note that after a full reset, some pages might look different until the RAID has been configured in screen 2. Store the settings, leave the BIOS and re-enter it to complete the final BIOS settings as shown on screen 1 - 20.

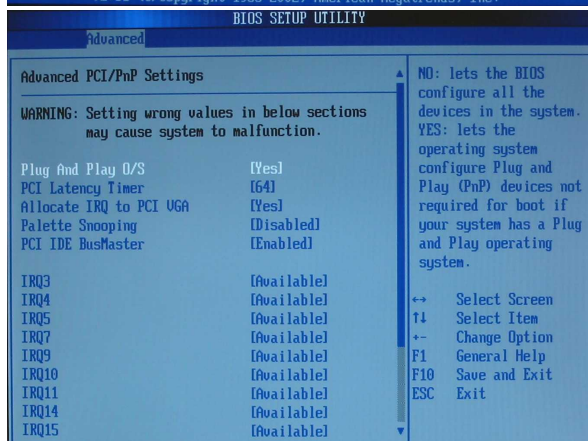




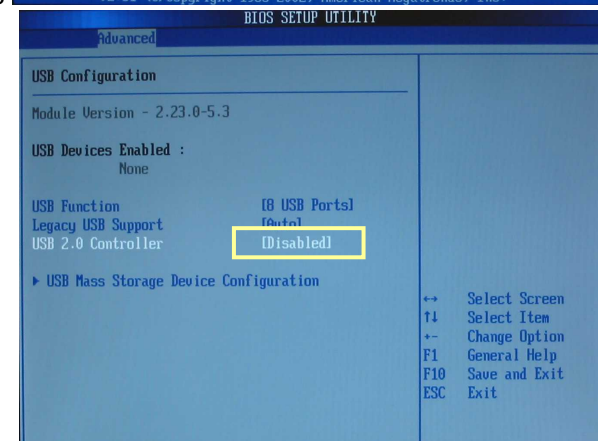
7 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.



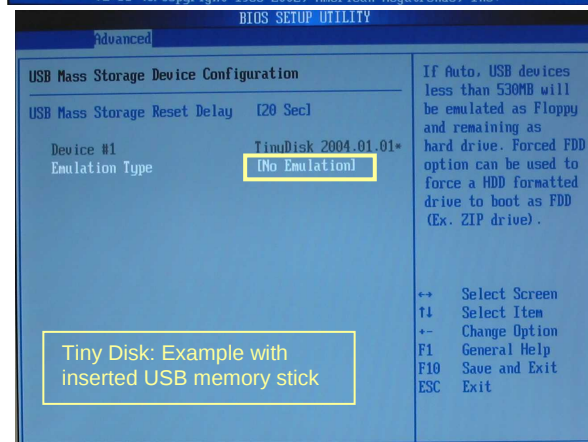
8 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.



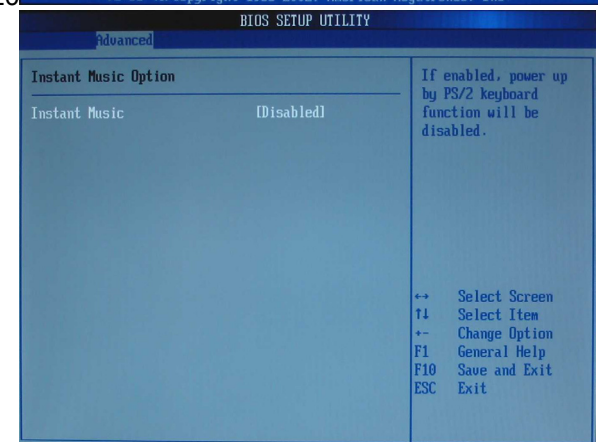
9 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.



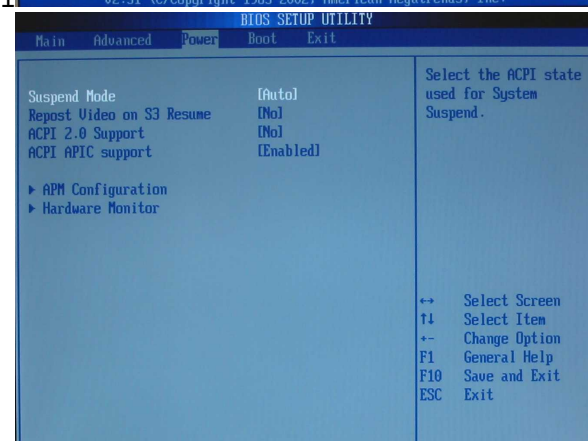
10 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.



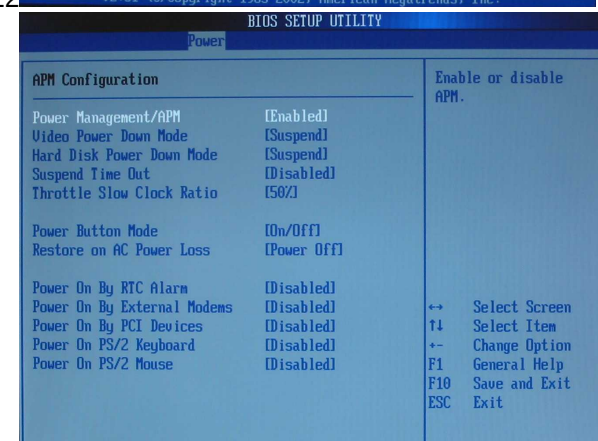
11 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.



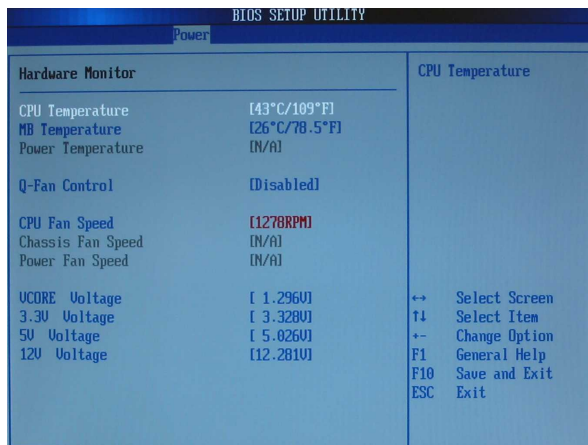
12 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.



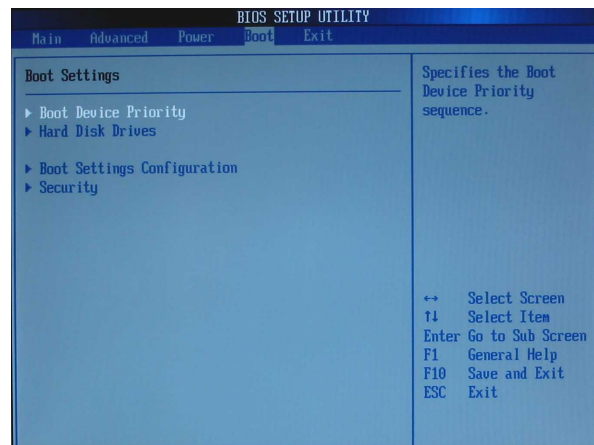
13 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.



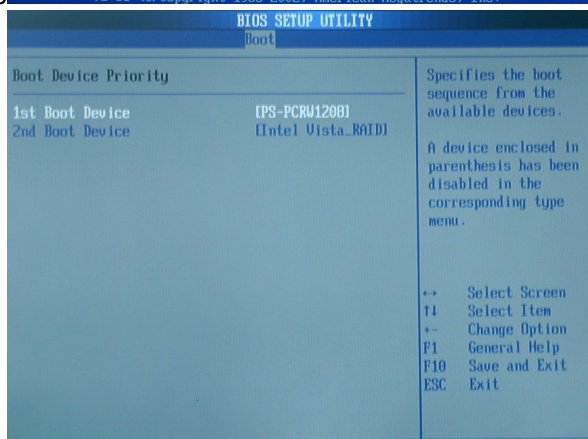
14 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.



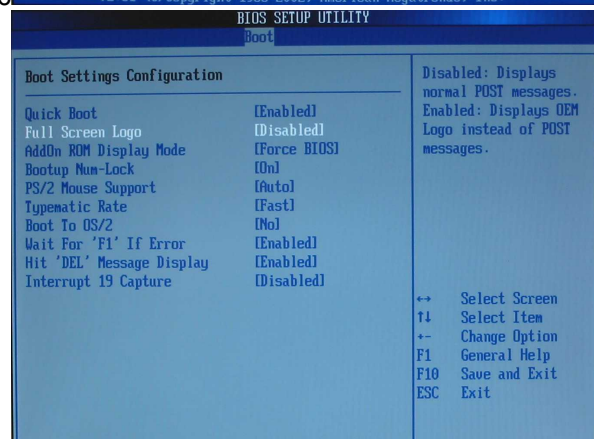
15 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.



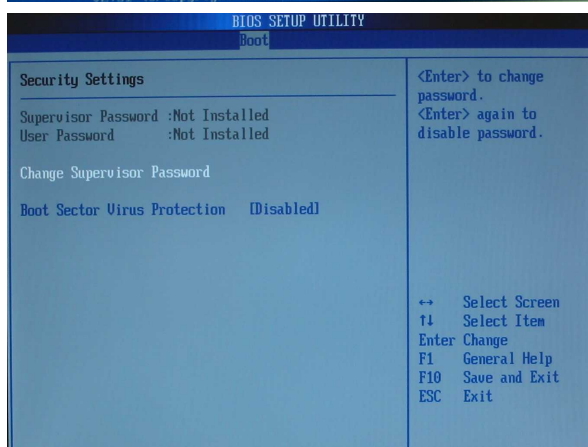
16 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.



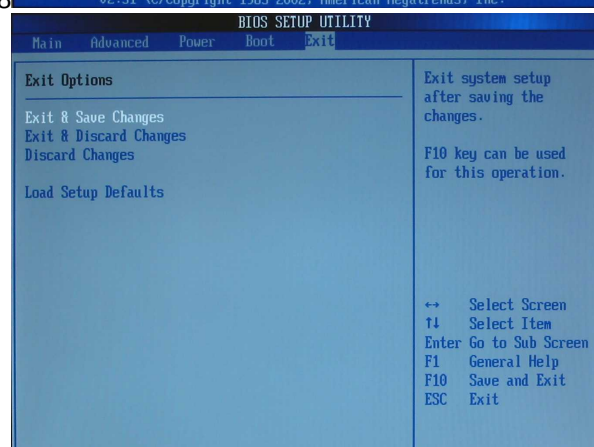
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18 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.

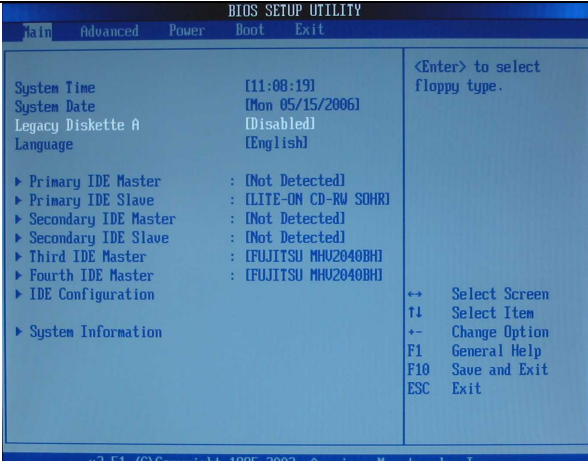
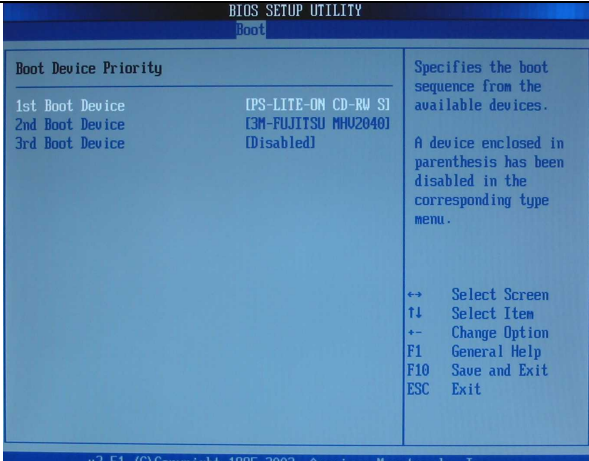
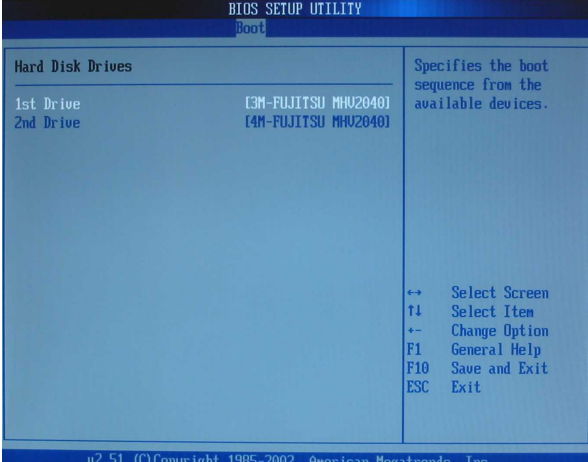


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20 v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.

Before configuring the RAID-1 array in screen 2, some BIOS pages will show different values :

 BIOS SETUP UTILITY Main Advanced Power Boot Exit System Time [11:08:19] System Date [Mon 05/15/2006] Legacy Diskette A [Disabled] Language [English] ▶ Primary IDE Master : [Not Detected] ▶ Primary IDE Slave : [LITE-ON CD-RW SOHR] ▶ Secondary IDE Master : [Not Detected] ▶ Secondary IDE Slave : [Not Detected] ▶ Third IDE Master : [FUJITSU MHU2040BH] ▶ Fourth IDE Master : [FUJITSU MHU2040BH] ▶ IDE Configuration ++ Select Screen F4 Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.	 BIOS SETUP UTILITY Boot Boot Device Priority 1st Boot Device [PS-LITE-ON CD-RW S] 2nd Boot Device [3M-FUJITSU MHU2040] 3rd Boot Device [Disabled] Specifies the boot sequence from the available devices. A device enclosed in parenthesis has been disabled in the corresponding type menu. ++ Select Screen F4 Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.
1A Disks will appear as single drives	17A Boot Device Priority without RAID entry
 BIOS SETUP UTILITY Boot Hard Disk Drives 1st Drive [3M-FUJITSU MHU2040] 2nd Drive [4M-FUJITSU MHU2040] Specifies the boot sequence from the available devices. ++ Select Screen F4 Select Item +- Change Option F1 General Help F10 Save and Exit ESC Exit v2.51 (C) Copyright 1985-2002, American Megatrends, Inc.	Save BIOS after configuring RAID and re-enter BIOS to enter the final RAID settings as shown on screen 1 - 20.