# Linux on Sony VAIO mini−HOWTO

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# Linux on Sony VAIO mini−HOWTO


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*This document explains installation of Linux on Sony VAIO computers.*


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## 1. Introduction

## 1.1 Notes

This document first appeared in "Hideki Saito's Homepage" at

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http://ryoohki.anime.net/~hideki/
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. This version of HOWTO is rewritten for updated information. HTML version is found in http://ryoohki.anime.net/ hideki/VAIO+Linux.html. You may distribute this document freely. When you publish it, please drop me a note; I just want know how this documents are used :)

## 1.2 Notes about different systems

I've recently received some mail stating that some of contents in this document is incorrect. It is because some reason, hardware installed on more recent systems are slightly different than older systems. I will start covering those information. But since of course, I don't have every system in here, I would like to ask Sony VAIO owners to tell me more information about it. This would help me a lot if you can put [VAIO Information] in the beginning of the subject, so I can take extra attention to it. Also, please include model number of the system. If it is notebook, please include that information in a content, or in a subject. I would like to apologize to ones that got confused by this document. (Addition: 12/29/98)

## 1.3 Update History

12/29/98 Added several updates

## 1.4 Disclaimer

Also most of procedures in this document is tested, I will take no responsibilities for any problem caused by using any information in this document. As like in GPL, please try anything in your own risk. I am not native English writer, and you will find many mistakes in this document. Please excuse me on those. Any corrections and clarifications are welcome; please send those to hideki@chatlink.com.

## 1.5 What this document all about?

In this HOWTO, I will go over how to use Linux under Sony VAIO computers. The VAIO computers are great, but was not very friendly to Linux. But this isn't mean that you cannot use it, actually you can! Throughout this document, I will assume that you own either PCV 70 or 90. Since almost all VAIO models are similar in their architecture (although newer ones have larger disks, updated video card, more RAM, etc), many of contents in this document should apply to all VAIO models.

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# 2. Hardware compatibilities issue

## 2.1 Hardware that not compatible with Linux

Most of hardwares installed in the system are compatible under Linux. However there are exceptions of modem, USB Port and MPEG decoder. Please be aware that you cannot use modem, which should be problem for some of you. Modems installed in the VAIO is called DSVD modem, which is the variant of the "Winmodem."

(Addition: 12/28/98) Newer model seems to have normal modem instead of Winmodem.

## 2.2 Partially compatible hardwares

The soundcard and the Video card installed are partially compatible.

### Soundcard

Soundcard is compatible under Linux with supports of Microsoft Sound System + Sound Blaster, if you want to use MIDI under Linux, you need to compromise your sound input capabilities. For this case, cancel out the Sound Blaster. If you need MIDI, and sound input, you may want consider buying OSS/Linux, which you can use all of its capabilities under Linux. The soundcard equipped with the VAIO is Yamaha OPL3SA, and OSS/Linux has full support to it. It seems like that the wavetable synthesis mentioned in the specification is really the soft synthesizer, so you are not missing hardware capabilities on it. As the time I am writing this, there is the OSS/Free 3.8, which supports this soundcard under Yamaha OPL3−SA1 audio controller. Please note that this is not initially installed on 2.0.x. You will need to download from OSS site. 2.1.x comes with updated version of OSS/Free, but I haven't tested compatibility with it. If you see that it is working with this soundcard, please let me know.

### Video Card

Videocard is partially supported under Linux. You will have no problem using it under Linux console mode. If you wish to use it under X Window, get 3.3.1 or later XFree86, which has support to ATI Rage. Other commercial X Window system should support this, too. However, 3D acceleration of this video card will not work under Linux, as there is no driver for this. (Update 12/29/98) For model number 505, ALSA drivers on XFree86 V3.3.3 or later is compatible.

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## 3. How to install Linux?

Installing Linux on the system will not be big problem. However, you need to aware that initially, there are one non−DOS partition on the system. I have no idea what that partition is. It is 400MB partition, and it is visible by running fdisk. I simply deleted this partition to allocate it for Linux. And I don't have any problem, so probably it must be something to do with software installation. (Update 12/29/98) This 400MB partition is only on older models, it really supporsed to be another 400MB DOS partition, but Sony made mistake on it. Please refer to other instruction for general installation of Linux. The VAIO has nice support that you can boot directly from CD−ROM, if CD−ROM is bootable. Since the BIOS supports it, it is what you can use in some distribution. This is nice, because you can perform floppyless installation. Particularly, Redhat could boot from CD−ROM. Other distribution like SUSE also claims that it can boot from CD−ROM. But as I have not checked those yet, I cannot be sure on that. If that this way of booting does not work with yours, try checking boot option in the BIOS. Kernel configuration shouldn't be big problem except for the part to setup soundcard. But as I covered that issue earlier, I will not talk about it in this section. The VAIO computer is equipped with APM BIOS, or Advanced Power Management BIOS, I personally don't recommend that you enable support to it under Linux. I had problem when I enabled it. (Update 12/29/98) I have received report that with 505, CD−ROM install is difficult and network install is much easier.

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## 4. After all...

Everything went well? I hope it did. Now your Sony VAIO computer is one of the best Linux workstation. If you have any problem, I may have answer to your questions. Please just send those to hideki@chatlink.com anytime. I will try to answer those as soon as possible.

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# 5. Little Legal notes



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# 6. Special thanks

I would like to thank to following people, not in any particular order: Daniel Nunes. If you feel that your name should be on this section, please let me know by mail. (recentlly I lost big portion of my mail spool by accident, so it maybe the case)

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