

## Re: Modem Install Problems

**Source:** <http://linux.derkeiler.com/Newsgroups/comp.os.linux.setup/2003-09/0123.html>

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**Date:** 09/03/03

Date: Wed, 03 Sep 2003 19:34:35 GMT

On Tue, 2 Sep 2003 21:25:35 +0200, "Peter T. Breuer"  
<ptb@oboe.it.uc3m.es> wrote:

*>I don't understand what you are trying to ask. What is the difference  
>between doing by hand and doing by hand (i.e. by starting an  
>installation by hand)? Is not one simply a more roundabout way of doing  
>the same thing?*

I don't know. I have to discover it or somebody will tell me. I am not quite sure I'm understanding what you are trying to say..

*>Are you asking for some kind of blessing? Moral support? It won't make  
>any difference to the result!*

No, I don't ask neither of blessing nor moral support. Sorry because of misunderstanding. English is not native language of mine.

*>No. I mean the output from "dmesg". Maybe the kernel buffer that you  
>see in dmesg is saved in messages, maybe not. That's up to you and your  
>configuration of syslogd. More likely it's in boot.log or kernel.log or  
>syslog or something like that. But it's not improbable that it's in  
>messages (too). Often messsages is configured as a catch-all.*

dmesg output is (sorry for the length of this message, I know that this is not appropriate from the Usenet's FAQ viewpoint, but I want to give all the people asked from me in order to get help)  
dmesg

```
Kernel command line: BOOT_IMAGE=linux ro root=306 devfs=mount
hdc=ide-scsi acpi=off quiet
ide_setup: hdc=ide-scsi
Found and enabled local APIC!
Initializing CPU#0
Detected 1531.039 MHz processor.
Console: colour dummy device 80x25
Calibrating delay loop... 3053.97 BogoMIPS
Memory: 515096k/524224k available (1410k kernel code, 8740k reserved,
1118k data, 136k init,
```

0k highmem)  
Dentry cache hash table entries: 65536 (order: 7, 524288 bytes)  
Inode cache hash table entries: 32768 (order: 6, 262144 bytes)  
Mount cache hash table entries: 512 (order: 0, 4096 bytes)  
Buffer-cache hash table entries: 32768 (order: 5, 131072 bytes)  
Page-cache hash table entries: 131072 (order: 7, 524288 bytes)  
CPU: L1 I Cache: 64K (64 bytes/line), D cache 64K (64 bytes/line)  
CPU: L2 Cache: 256K (64 bytes/line)  
Intel machine check architecture supported.  
Intel machine check reporting enabled on CPU#0.  
CPU: After generic, caps: 0383fbff c1c3fbff 00000000 00000000  
CPU: Common caps: 0383fbff c1c3fbff 00000000 00000000  
CPU: AMD Athlon(tm) XP 1800+ stepping 00  
Enabling fast FPU save and restore... done.  
Enabling unmasked SIMD FPU exception support... done.  
Checking 'hlt' instruction... OK.  
POSIX conformance testing by UNIFIX  
enabled ExtINT on CPU#0  
ESR value before enabling vector: 00000000  
ESR value after enabling vector: 00000000  
Using local APIC timer interrupts.  
calibrating APIC timer ...  
..... CPU clock speed is 1531.0402 MHz.  
..... host bus clock speed is 266.2678 MHz.  
cpu: 0, clocks: 2662678, slice: 1331339  
CPU0<T0:2662672,T1:1331328,D:5,S:1331339,C:2662678>  
mtrr: v1.40 (20010327) Richard Gooch (rgooch@atnf.csiro.au)  
mtrr: detected mtrr type: Intel  
ACPI: Subsystem revision 20030122  
ACPI: Disabled via command line (acpi=off)  
PCI: PCI BIOS revision 2.10 entry at 0xfb9c0, last bus=2  
PCI: Using configuration type 1  
PCI: Probing PCI hardware  
PCI: ACPI tables contain no PCI IRQ routing entries  
PCI: Probing PCI hardware (bus 00)  
PCI: Discovered primary peer bus ff [IRQ]  
PCI: Using IRQ router default [10de/01e0] at 00:00.0  
isapnp: Scanning for PnP cards...  
isapnp: No Plug & Play device found  
Linux NET4.0 for Linux 2.4  
Based upon Swansea University Computer Society NET3.039  
Initializing RT netlink socket  
apm: BIOS version 1.2 Flags 0x07 (Driver version 1.16)  
Starting kswapd  
VFS: Disk quotas v"6.5.1  
devfs: v1.12c (20020818) Richard Gooch (rgooch@atnf.csiro.au)  
devfs: boot\_options: 0x1  
vesafb: framebuffer at 0xd0000000, mapped to 0xe0800000, size 65536k  
vesafb: mode is 1024x768x16, linelength=2048, pages=41  
vesafb: protected mode interface info at c000:56e3  
vesafb: scrolling: redraw

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```
vesafb: directcolor: size=0:5:6:5, shift=0:11:5:0
Looking for splash picture.... no good signature found.
Console: switching to colour frame buffer device 128x48
fb0: VESA VGA frame buffer device
pty: 256 Unix98 ptys configured
Serial driver version 5.05c (2001-07-08) with HUB-6 MANY_PORTS
MULTIPOINT SHARE_IRQ

SERIAL_PCI ISAPNP enabled
ttyS00 at 0x03f8 (irq = 4) is a 16550A
ttyS01 at 0x02f8 (irq = 3) is a 16550A
RAMDISK driver initialized: 16 RAM disks of 32000K size 1024 blocksize
Uniform

Multi-Platform E-IDE driver Revision: 7.00beta-2.4
ide: Assuming 33MHz system bus speed for PIO modes; override with
idebus=xx
NFORCE2: IDE controller at PCI slot 00:09.0
NFORCE2: chipset revision 162
NFORCE2: not 100% native mode: will probe irqs later
  ide0: BM-DMA at 0xf000-0xf007, BIOS settings: hda:DMA, hdb:DMA
  ide1: BM-DMA at 0xf008-0xf00f, BIOS settings: hdc:DMA, hdd:DMA
hda: Maxtor 6Y080L0, ATA DISK drive
blk: queue c03cb420, I/O limit 4095Mb (mask 0xffffffff)
hdc: ASUS CRW-5224A, ATAPI CD/DVD-ROM drive
ide0 at 0x1f0-0x1f7,0x3f6 on irq 14
ide1 at 0x170-0x177,0x376 on irq 15
hda: host protected area => 1
hda: 160086528 sectors (81964 MB) w/2048KiB Cache, CHS=9964/255/63,
UDMA(33)
Partition check:
/dev/ide/host0/bus0/target0/lun0: p1 p2 < p5 p6 p7 >
md: md driver 0.90.0 MAX_MD_DEVS=256, MD_SB_DISKS=27
md: Autodetecting RAID arrays.
md: autorun ...
md: ... autorun DONE.
NET4: Linux TCP/IP 1.0 for NET4.0
IP Protocols: ICMP, UDP, TCP, IGMP
IP: routing cache hash table of 4096 buckets, 32Kbytes
TCP: Hash tables configured (established 32768 bind 65536)
Linux IP multicast router 0.06 plus PIM-SM
NET4: Unix domain sockets 1.0/SMP for Linux NET4.0.
RAMDISK: Compressed image found at block 0
Freeing initrd memory: 107k freed
VFS: Mounted root (ext2 filesystem).
Mounted devfs on /dev
Journalled Block Device driver loaded
kjournald starting. Commit interval 5 seconds
EXT3-fs: mounted filesystem with ordered data mode.
Mounted devfs on /dev
Freeing unused kernel memory: 136k freed
```

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Real Time Clock Driver v1.10e  
usb.c: registered new driver usbdevfs  
usb.c: registered new driver hub  
PCI: Setting latency timer of device 00:02.0 to 64  
usb-ohci.c: USB OHCI at membase 0xe483b000, IRQ 11  
usb-ohci.c: usb-00:02.0, PCI device 10de:0067 (nVidia Corporation)  
usb.c: new USB bus registered, assigned bus number 1  
hub.c: USB hub found  
hub.c: 3 ports detected  
PCI: Setting latency timer of device 00:02.1 to 64  
usb-ohci.c: USB OHCI at membase 0xe483d000, IRQ 5  
usb-ohci.c: usb-00:02.1, PCI device 10de:0067 (nVidia Corporation)  
usb.c: new USB bus registered, assigned bus number 2  
hub.c: USB hub found  
hub.c: 3 ports detected  
PCI: Setting latency timer of device 00:02.2 to 64  
ehci-hcd 00:02.2: PCI device 10de:0068 (nVidia Corporation)  
ehci-hcd 00:02.2: irq 10, pci mem e4856000  
usb.c: new USB bus registered, assigned bus number 3  
ehci-hcd 00:02.2: USB 2.0 enabled, EHCI 1.00, driver 2002-Dec-20  
hub.c: USB hub found  
hub.c: 6 ports detected  
usbdevfs: remount parameter error  
EXT3 FS 2.4-0.9.19, 19 August 2002 on ide0(3,6), internal journal  
Adding Swap: 1180736k swap-space (priority -1)  
SCSI subsystem driver Revision: 1.00  
scsi0 : SCSI host adapter emulation for IDE ATAPI devices  
Vendor: ASUS Model: CRW-5224A Rev: 1.35  
Type: CD-ROM ANSI SCSI revision: 02  
NTFS driver 2.1.1a [Flags: R/O MODULE].  
NTFS volume version 3.0.  
MSDOS FS: IO charset utf8  
inserting floppy driver for 2.4.21-0.13mdk  
Floppy drive(s): fd0 is 1.44M  
FDC 0 is a post-1991 82077  
Attached scsi CD-ROM sr0 at scsi0, channel 0, id 0, lun 0  
sr0: scsi3-mmc drive: 52x/52x writer cd/rw xa/form2 cdda tray  
Uniform CD-ROM driver Revision: 3.12  
CSLIP: code copyright 1989 Regents of the University of California  
PPP generic driver version 2.4.2  
Installing knfsd (copyright (C) 1996 okir@monad.swb.de).  
Intel 810 + AC97 Audio, version 0.24, 15:29:58 Mar 14 2003  
PCI: Setting latency timer of device 00:06.0 to 64  
i810: NVIDIA nForce Audio found at IO 0xe800 and 0xe400, MEM 0x0000  
and 0x0000, IRQ

5i810\_audio: Audio Controller supports 6 channels.  
i810\_audio: Defaulting to base 2 channel mode.  
i810\_audio: Resetting connection 0  
ac97\_codec: AC97 Audio codec, id: ALG32 (ALC650)  
i810\_audio: AC'97 codec 0, new EID value = 0x05c7

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```
i810_audio: AC'97 codec 0, DAC map configured, total channels = 6
parport0: PC-style at 0x378 [PCSPP,TRISTATE]
lp0: using parport0 (polling).
hamcore module init
ham: device not found.
hamcore module cleanup
spurious 8259A interrupt: IRQ7.
```

```
>> Speaking about it is there a way to save the whole history of messages
>
> What messages?
>
>> as 1 file, instead of saving each display?
>
> I don't understand what you mean. What messages? What display?
```

The messages in /var/log/messages  
There is a possibility to save just the content of currently shown window (I don't know how to express it clearer, I tried not to use this word in Linux group, but it seems that "display" is more confusing:). I wondered is there any chance to save all of the messages of this dir with 1 command instead of PageDown-Save History, PgDown-Save History and so on some several hundred times....

```
> Run depmod -ae and let's have a look at what the missing symbols are.
```

```
# depmod -ae
depmod: *** Unresolved symbols in
/lib/modules/2.4.21-0.13mdk/kernel/drivers/char/ham.o
depmod: schedule_timeout
depmod: __wake_up
depmod: tty_unregister_driver
depmod: __generic_copy_from_user
depmod: tty_std_termios
depmod: __release_region
depmod: tq_immediate
depmod: tty_register_driver
depmod: pci_enable_device
depmod: vfree
depmod: pcibios_present
depmod: free_irq
depmod: free_pages
depmod: __ioremap
depmod: bh_task_vec
depmod: request_irq
depmod: tty_flip_buffer_push
depmod: pci_find_device
depmod: __tasklet_hi_schedule
depmod: jiffies
depmod: printk
depmod: ioport_resource
```

```
depmod: get_zeroed_page
depmod: *** Unresolved symbols in
/lib/modules/2.4.21-0.13mdk/kernel/drivers/char/hamcore.o
depmod: enable_irq
depmod: schedule_timeout
depmod: __wake_up
depmod: schedule
depmod: __udelay
depmod: create_proc_entry
depmod: interruptible_sleep_on_timeout
depmod: del_timer
depmod: interruptible_sleep_on
depmod: disable_irq
depmod: remove_proc_entry
depmod: schedule_task
depmod: proc_root
depmod: jiffies
depmod: printk
depmod: add_timer
depmod: __const_udelay
```

*>What driver? Tell us the site. Tell us the file. Show us the commands  
>you used. Precisely. Line by line.*

The driver was from [www.sweex.com](http://www.sweex.com) site. The manufacturer of my modem.  
The file is Intel-v92ham-453.tgz

*>> /tmp dir.  
>  
>Why?*

I read in some online article that is preferable to put an archive in  
this dir. Is there any other suggestion maybe?

*>What procedure? Where did you get this procedure from? What did it  
>consist of? Show us what you did, step by step, and what happened  
>at each step.*

*>> at linmodems:  
>> in the range from Intel-536ep-448.tgz up to Intel-536ep-453.tgz (I  
>> suppose that in the driver's name should be the string from lspci  
>> "536ep".  
>  
>Those look like newer and newer versions. Go for the newest.*

I've just tried it and this is what I got:  
[root@localhost XX]# cd /tmp  
[root@localhost tmp]# tar -zxvf Intel-536ep-453.tgz  
Intel-536ep-453/  
Intel-536ep-453/536ep-boot  
Intel-536ep-453/536ep-inst

```
Intel-536ep-453/coredrv/  
Intel-536ep-453/coredrv/clmmmain.c  
Intel-536ep-453/coredrv/coredrv.c  
Intel-536ep-453/coredrv/rts.c  
Intel-536ep-453/coredrv/task.c  
Intel-536ep-453/coredrv/uart.c  
Intel-536ep-453/coredrv/wwh_dflt.c  
Intel-536ep-453/coredrv/makefile  
Intel-536ep-453/coredrv/536epcore.lib  
Intel-536ep-453/inc/  
Intel-536ep-453/inc/hamdefs.h  
Intel-536ep-453/inc/hamcore.h  
Intel-536ep-453/inc/rts.h  
Intel-536ep-453/inc/uart.h  
Intel-536ep-453/inc/wwh_dflt.h  
Intel-536ep-453/inc/tasker.h  
Intel-536ep-453/inc/sys_ver.h  
Intel-536ep-453/license.txt  
Intel-536ep-453/makefile  
Intel-536ep-453/readme.txt  
Intel-536ep-453/serialdrv/  
Intel-536ep-453/serialdrv/gpl.txt  
Intel-536ep-453/serialdrv/clmdrvr.c  
Intel-536ep-453/serialdrv/makefile  
Intel-536ep-453/hamregistry  
Intel-536ep-453/config_check  
[root@localhost tmp]# cd Intel-536ep-453  
[root@localhost Intel-536ep-453]# make clean  
cd coredrv; make clean  
make[1]: Entering directory `/tmp/Intel-536ep-453/coredrv'  
rm -f *.o *~ core  
make[1]: Leaving directory `/tmp/Intel-536ep-453/coredrv'  
cd serialdrv; make clean  
make[1]: Entering directory `/tmp/Intel-536ep-453/serialdrv'  
rm -f *.o *~ core  
make[1]: Leaving directory `/tmp/Intel-536ep-453/serialdrv'  
rm -f *.o  
rm -f *.o  
[root@localhost Intel-536ep-453]# make ham  
make: *** No rule to make target `ham'. Stop.  
[root@localhost Intel-536ep-453]# make install  
bash 536ep-inst  
running kernel 2.4.21-0.13mdk  
installing hamregistry, used for persistant storage  
installing 536EP module  
install: cannot stat `536ep.o': No such file or directory  
installing 536ep core module  
install: cannot stat `536epcore.o': No such file or directory  
mandrake 536ep-boot script  
starting module and utilities  
error loading 536epcore
```

done

[root@localhost Intel-536ep-453]#

>You have a tgz. So likely when you untar it there will be instructions  
>in a README. Show us the instructions. Show us what you did. Show us  
>the results.

The instructions are:

ReadMe file for the  
Intel MD563X-HaM V.92 chipset Linux driver

contents:

1. License
2. Release Notes
3. Installation
4. File Descriptions
5. International

Users

6. Beta Tester appreciation
7. Security issues
8. Compilation issues
  - a.

Instructions for Debian Users

- b. Kernel Source
9. What is the Hamregistry?
10. what's

v92 and v44?

11. The Hamregistry tool (for persistence)
12. Known Bugs/Issues
13. Comments,

ideas, problems, fixes

Release Notes

This release supports 2.4.x kernels.

This release is not compatible to 2.2.x kernels, please use  
the 333-5 Linux HaM driver.

The HaM corecode binary was compiled with gcc version 3.2

v92 support added: modem on hold AT command set,  
PCM upstream, v44, and quick connect are implemented.

Linux Compatability tests are performed on the latest or  
previous

versions of the following distributions: Mandrake, RedHat, and  
SuSE

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### 3. INSTALLATION

Prerequisites:

Re: Modem Install Problems

1. root access
  2. bash shell to run install scripts
  3. a HaM modem
  4. KERNEL SOURCE HEADERS FOR THE KERNEL YOU ARE RUNNING  
(found on your distribution's CD)
- 6 steps to install
1. login as ROOT
  2. extract the archive into a directory with "tar -zxvf  
<archivename>.tgz"
  3. cd into the directory it created.
  4. Type: make clean
  5. Type: make ham
  6. Type: make install

The driver is split in two. A ham serial driver and core driver.  
The core driver must be loaded first since the serial driver depends on it.

The serial driver registers itself as character device  
major number 240, minor number 1.

The serial driver takes one argument right now, which is a number to  
override the default major number if you need to.

ATTENTION: if the driver compiles but the script just wont work for  
you.

Here are the bare minimum steps to get your modem to work.

0. log in as root.
1. insmod -f hamcore.o 2. insmod -f ham.o
- 2a. you can start "hamregistry" at this point if you wish.
3. rm /dev/ham
4. mknod /dev/ham c 240 1 (note "240" is the default, if it does  
not

work see what /proc/devices says ham's major number is)

5. ln -s /dev/ham /dev/modem
6. start a comm application like minicom and use the modem.
7. see section 3 (International Users) for info on setting the  
correct

> *country settings.*

After I tried these commands I can see during the system booting this  
message:

Finding module dependencies:

depmod:\*\*\* Unresolved symbols in  
/lib/modules/2.4.21-0.13mdk/kernel/drivers/char/ham.o

depmod:\*\*\* Unresolved symbols in  
/lib/modules/2.4.21-0.13mdk/kernel/drivers/char/hamcore.o

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#### 4. FILE DESCRIPTIONS

haminst installation script to install HaM modules and supporting  
files

files copied to /lib/modules/(kernel-version)/misc

hamcore.o driver core code module

ham.o pseudo serial driver for HaM, depends on  
hamcore.o

files copied to /etc/rc.d/... (path differs per distribution)

hamboot boot scrip to start and stop HaM modules

files copied to /usr/sbin

hamregistry hamregistry is the "registry" like tool that the modem  
uses to

get and store persistant data such as county info and profile  
strings.

files copied to /etc

hamregistry.bin file that stores the initial persistant data  
for modem.

>

I tried to find these files (ham.o, hamcore.o, hamboot, hamregistry  
and hamregistryr.bin) and hamregistry is the only one I could find at  
the place where they say it should be..

>7. *Security*

<

issues

the haminst and hamboot file install the files and device nodes as  
root for the

owner and group.

this will cause problems for those who want to user the modem to

dialout

using an account other than root.

In SuSE, "dialout" is the group used to install

the files and device node.

This way, anyone belonging to the "dialout" group can use the

modem to dialout.

(take a look at /etc/group)

I did not want the script to allow full

access of the modem to everyone without  
"root" knowing.

Edit the hamboot and haminst

scripts to fit your needs.

>8. *Compile*

issues

- a. this driver will now compile with the this path:  
/lib/modules/<kernel

version>/build/include

the 2.4.4+ kernels says to copy the /boot/vmlinuz.version.h

over to the kernel build path. I have the makefile do this  
if this file exists. You

must install the kernel source

code anyways. It should be on your distribution's CD.

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Thank you for your time.

Best regards D. Djakovic

djakovic NO\_SPAM at uns.ns.ac.yu