

Debian / Ubuntu Linux Installation Guide for eBox-33xx/33xxA/PDX-057T v1.3

The Vortex86DX chipset of the eBox 33xx/33xxA and PDX touch panel series, require some special attention for installing Linux (Debian/Ubuntu). Before kernel 2.6.28.3 there is no build in support for the LAN and IDE controller.

As of Linux kernel 2.6.28.3 the eBox 33xx / 33xxA and PDX IDE and LAN controller are supported natively.

This guide gives some information and help to successfully install Debian or Ubuntu on the eBox 33xx/33xxA and PDX series.

How to install Linux on eBox33xx/33xxA/PDX057/089-T?

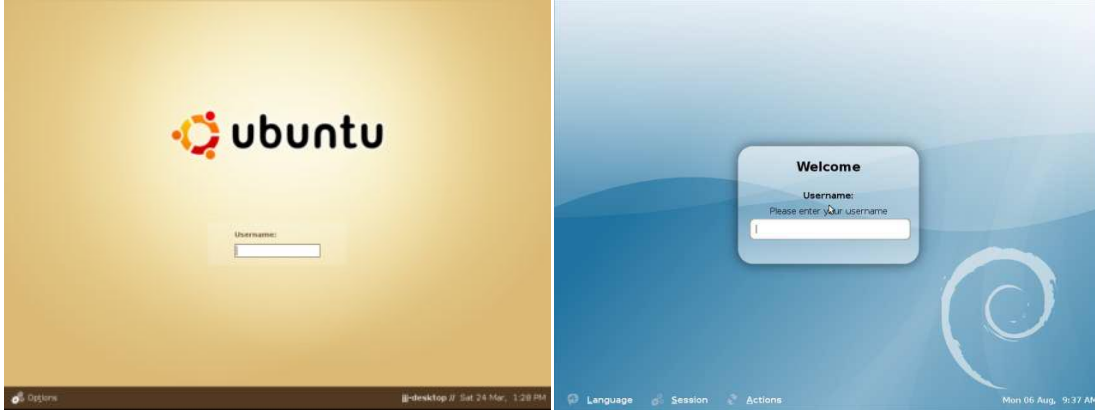
Requirements and preparation:

1. The Linux installation DISC (Ubuntu7.10, 8.04, 9.04, Debian4.0, 5.0)
2. A completely formatted storage (CF, DOM or Harddisk)
3. A USB stick (>256MB)
4. A temporary or old Intel/AMD platform Personal Computer for some preinstallation tasks.
5. Connect your eBox or PDX and additional devices.
6. Confirm below BIOS settings in eBox or PDX (press DEL on startup):
 - **Advanced**
 - **IDE Configuration\ IDE mode >> Native mode**
 - **USB Configuration\ USB 2.0 Controller Mode >> Fullspeed**
6. The 2.6.30 kernel package Glomos provides (download at <http://www.glomos.com>)
7. Check de storage media for errors before installation. This will eliminate some unknown install errors.

If above preparation is finished, follow below steps to install Unbuntu or Debian:

Step1

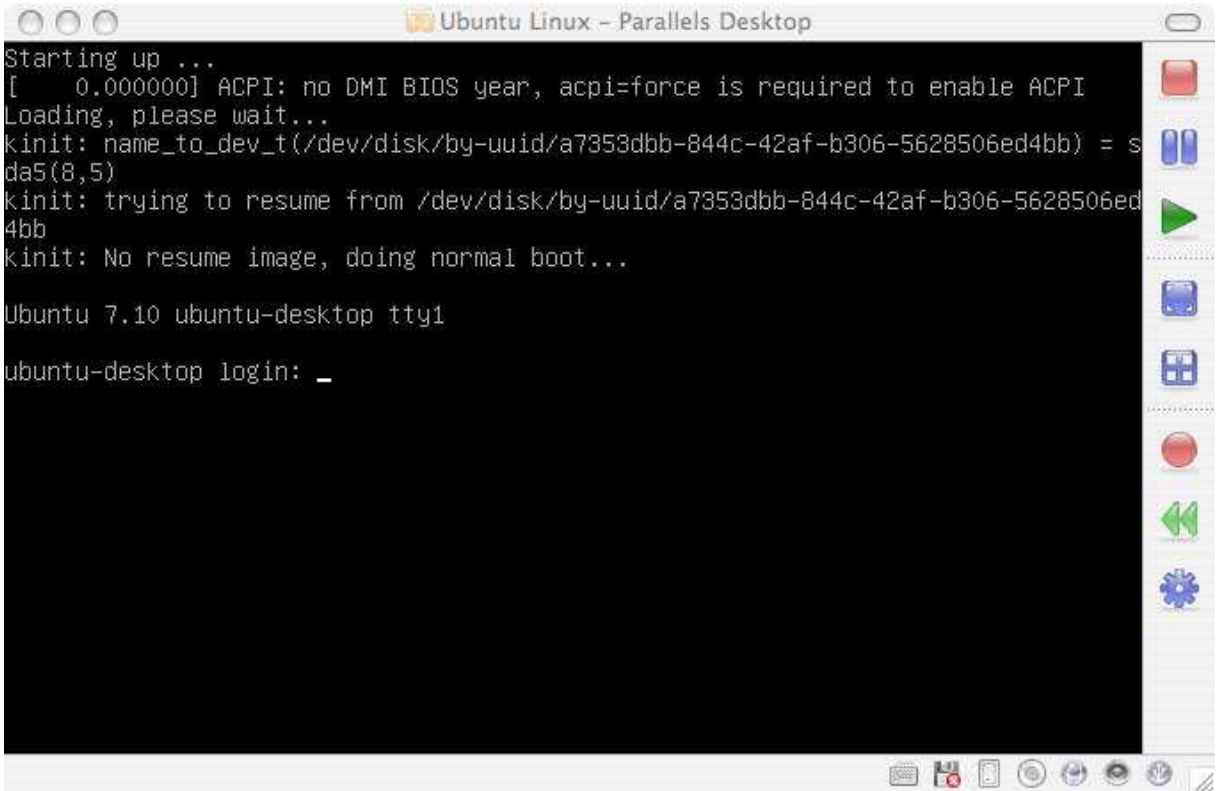
Please follow the standard procedure to install Debian or Ubuntu to an **Intel or AMD** machine first, and make sure your Linux installation will boot without errors. Write down the username and password you provided during setup.



Ubuntu and Debian login screen

Step2

- 1 Please copy the .deb file ([linux-image-2.6.30-vortex86mx_1.0_i386.deb](#) kernel package) that Glomos provided to your USB key storage.
- 2 Press Ctrl+Alt+F1 keys to enter standard Linux text console. Login with the username and password you provided during setup.



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- 3 Plug on the USB pen driver and try to mount it as **mnt**.

```
#sudo su  
  
#mount /dev/sda1 /mnt  
  
#cd /mnt
```

- 4 unpack the kernel package and update your initramfs

```
# dpkg -i linux-image-2.6.30-vortex86mx\_1.0\_i386.deb  
  
# update-initramfs -k 2.6.30-vortex86mx -c  
  
# update-grub
```

Note that devicename **sda1** may differ for your hardware

5. When these three procedures completed, shutdown the system.

```
# shutdown
```

Step3

Move the storage media from the temporary PC to your eBox or PDX.

Step4

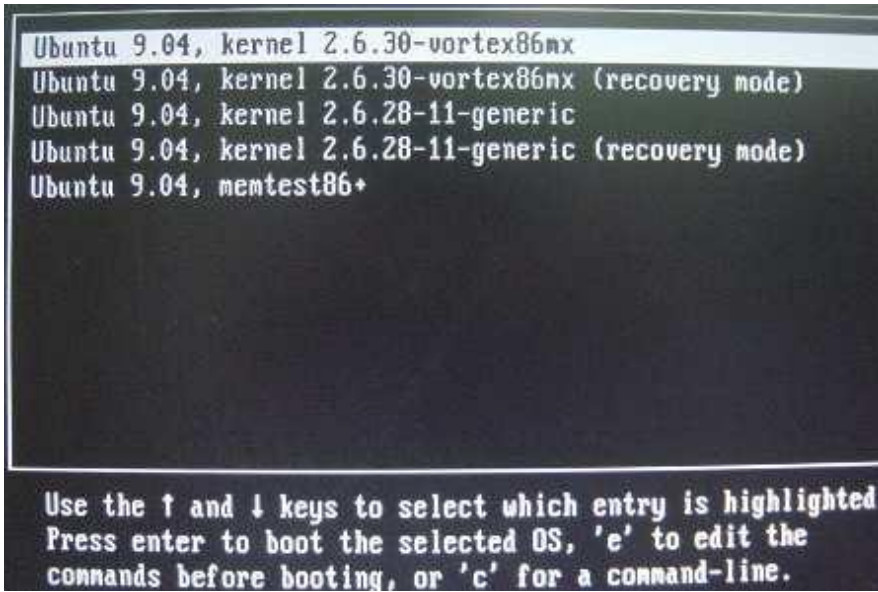
Turn on the eBox33xx/eBox33xxA/PDX057-T power.

Then For Ubuntu:

Press the Esc during boot to manual select Grub boot list.

Confirm the Grub list first.

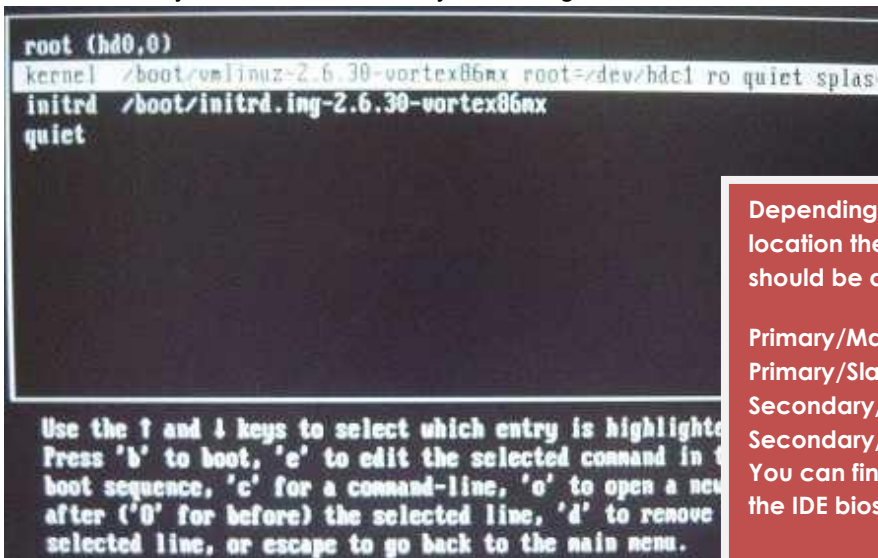
Included in the list there should be your **2.6.30 vortex86mx** kernel. Select it and press enter.



For Debian

Press the Esc during boot to manual select Grub boot list.

Press the E key to confirm and modify the storage's codename.



Depending on your storage bus location the physical storage path should be adjusted to:

- Primary/Master = /dev/hda1
- Primary/Slaver = /dev/hdb1
- Secondary/Master = /dev/hdc1
- Secondary/Slaver = /dev/hdd1

You can find the correct location in the IDE bios settings.

Note: After installation you can manually modify the grub config file in /boot/grub/menu.lst for both Ubuntu and Debian installations.

How to install the VGA driver of eBox33xx/33xxA/PDX057-T?

Prepare

1. Download the correct Display driver file from <http://www.glomos.com> in the eBox33xx download section. Filename: XGI_Z9S_R2_Xorg.zip

Step1

1. First extract the file and copy the extracted folder to your USB key.
2. Confirm the current Xorg version of your system.

Ubuntu8.04	X Server 1. 4
Ubuntu9.04	X Server 1. 6
Debian4.0	X Server 1. 3
Debian5.0	X Server 1. 4.2

If unsure, check the Xorg version from `/var/log/xorg.0.log`

3. Plug in the USB key and mount it (if not mounted automatically), then navigate to the xorg driver folder of your Xorg version.

Step2

Copy the correct version to your system:

```
#sudo su

#mount /dev/sda1 /mnt

#cd /mnt/.../1.X/2.xx.xx/IA32/xgipkg_Xorg8_i386/

(note the correct xorg version number)

#sh install.sh

(this will install the driver)

#/etc/init.d/gdm restart

(restart the gdm session after installation)
```

How to install the Touch Panel driver for PDX057-T?

Preparation:

1. The touch panel driver for eBox 33xx/PDX057-T platform

Driver Files: <http://home.eefi.com.tw/web20/eGalaxTouchDriver/linuxDriver.htm>

Step1:

1. Download the Touch driver and copy it to USB key.
2. Mount the storage and enter navigate to the extracted touch driver folder.
3. Execute the **setup.sh**

```
#sh setup.sh
```

4. Follow the steps to choose the touch interface:

```
(* ) Linux driver installer for eGalax Touch controller
(I) Check user permission: root, you are the supervisor.
(I) Begin to setup the eGalax Touch driver.
(I) Extract eGalax Touch driver archive to
/usr/local/eGalaxTouch32.
(I) Create eGalaxTouch utility shortcut in /usr/bin.
(I) Create TKCal tool shortcut in /usr/bin.
(I) Check X window version: 1.6.x
(I) Copy X module: x16/egalax_drv.so to
/usr/lib/xorg/modules/input.
(Q) Which interface controller do you use?
(I) [1] RS232 [2] PS/2 [3] USB : 3 << enter 3
```

5. After successful completion, return to the desktop and navigate to the touch driver folder on your USB key or local storage. Start eGalaxTouch to calibrate the touch panel.

Technical Support

For more technical support, please visit <http://www.glomos.com> or mail to info@glomos.com