

# Linux installation guide For Debian7.0/Ubuntu10.04

Regarding the system installation of Debian7.0/Ubuntu10.04, please follow the steps and suggestions below to complete the system installation on the EB-333x, 336x, 33xxMX, 33xxA, DIN PC-333x and 336x platform. In following contents, we provided is a brief instruction, users can configure it based on their needs.

## 1. Configuration of BIOS.

- The first step is to ensure BIOS has correctly configured that necessary function was enabled for IDE device. (for Debian7.0 especially)

```
Advanced
*****
* IDE Configuration                               * Options
*****
* OnBoard PCI IDE Controller      [Both]         * Disabled
*                               * Enabled
* * Primary IDE Master            [Not Detected] *
* * Primary IDE Slave            [Not Detected] *
* * Secondary IDE Master         [Not Detected] *
* * Secondary IDE Slave         [Not Detected] *
*                               *
* Hard Disk Write Protect        [Disabled]      *
* IDE Detect Time Out (Sec)     [35]            *
* ATA(PI) 80Pin Cable Detection [Host & Device] *
* IDE Operate Mode              [Legacy Model]  *
* PCI IDE BusMaster             [Enabled]       *
* Primary IDE Pin Select        [Parallel IDE]  *
* Hard Disk Delay               [2 Second]     *
* Standard IDE Compatible       [Enabled]       *
* IDE Compatible Selection       [808624DB]    *
*                               *
*                               *
*****
v02.69 (C)Copyright 1985-2010, American Megatrends, Inc.
```

- Keep pressing the key <Del> can assist entering BIOS when the power turned on. The BIOS functions you need to check locate Advanced \ IDE Configuration \ Standard IDE Compatible. Set as Enabled.
- For EB-336x and DIN PC-336x Series, there is no IDE Compattble setting in BIOS menu, please ignore the above steps.

## 2. Basic system installation.

- For Debian7.0, after booting from the installation CD, moving straight to install system would get a text only system, please choose Graphical Install if GUI is necessary for your application.



- The system would start to ask questions for basic configuration. Such as the language, keyboard map and time zone...etc.
- Then the system information appears for something about the detecting of network hardware, system requires users to load the firmware files for network device rtl8168, just answer no for this inquiry and move forward.
- Then the system would inform you that multiple network interfaces were detected on the corresponding EBOX platform, and the user to choose the one as primary network interface, both of them all could be chosen. And the Ethernet cable must be plugged in this period.

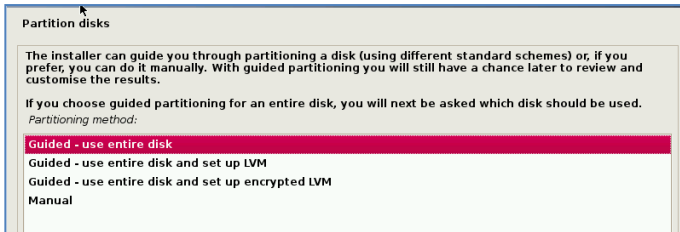
**Configure the network**

Please enter the hostname for this system.

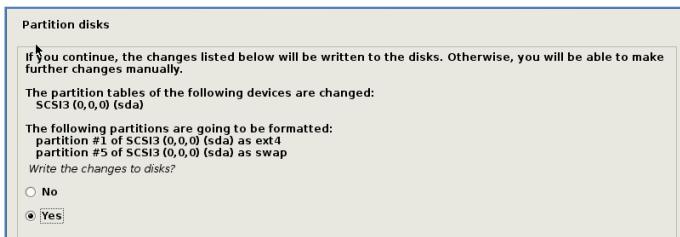
The hostname is a single word that identifies your system to the network. If you don't know what your hostname should be, consult your network administrator. If you are setting up your own home network, you can make something up here.

Hostname:

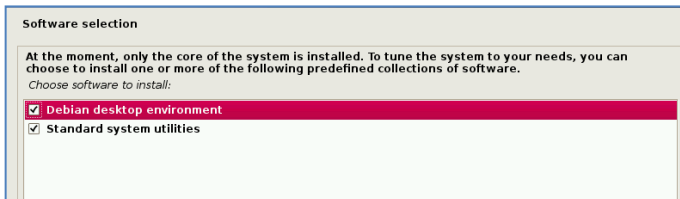
- As installation processing, the system would need you to make decisions about how the partitions your disk for the system? Following the default option is using entire disk, for the beginner. Then choose the “all files in one partition. Other allocation is also available, depends on customers’ needs.



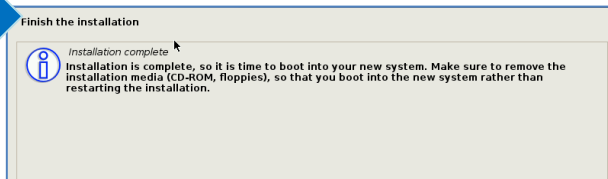
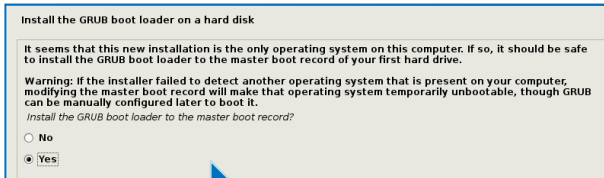
- In the final, remember to write the change to disk.



- Then the system would keep asking you few questions for configuration, suggestions were attached as follow.
- When system asking you to choose the software to install for system, you can remark both the Debian desktop environment and standard system utilities, then to continue following procedure. It would start the package installation, around hundred packages would be installed, please be patient until system informed you for the next step.



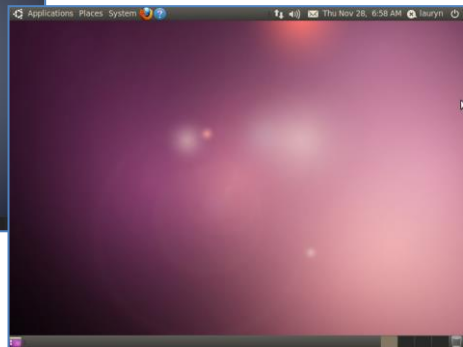
- The next question is about the agreement of the installation of the GRUB boot loader to the MBR area? Answer YES and wait system to complete the installation as last procedure.



- When it's completed, the disc tray will eject and inform you, then press continue to restart and be ready to enjoy the new system!



The Debian7.0



The Ubuntu10.04

### 3. Setting adjustment for 1G LAN (RTL-8111/ 8168 for EBOX-333x, 336x and DIN PC)

- Press <E> to edit the commands before booting.
- Add the parameters "pci=noms1" in the line of GRUB as example below.

```
GNU GRUB  version 1.99-27+deb7u1

setparams 'Debian GNU/Linux, with Linux 3.2.0-4-486'

load_video
insmod gzio
insmod part_msdos
insmod ext2
set root='(hd0,msdos1)'
search --no-floppy --fs-uuid --set=root 16dcc3b2-7d16-4b1e-9f79-bb79\
a94af682
echo 'Loading Linux 3.2.0-4-486 ...'
linux /boot/vmlinuz-3.2.0-4-486 root=UUID=16dcc3b2-7d16-4b1e-9f79-bb\
79a94af682 ro pci=noms1
echo 'Loading initial ramdisk ...'
initrd /boot/initrd.img-3.2.0-4-486

Minimum Emacs-like screen editing is supported. TAB lists
completions. Press Ctrl-x or F10 to boot, Ctrl-c or F2 for
a command-line or ESC to discard edits and return to the GRUB
menu.
```

- Then press F2 to excute and F10 to reboot.
- After the system reboot, user will find the connected 1G LAN working properly .

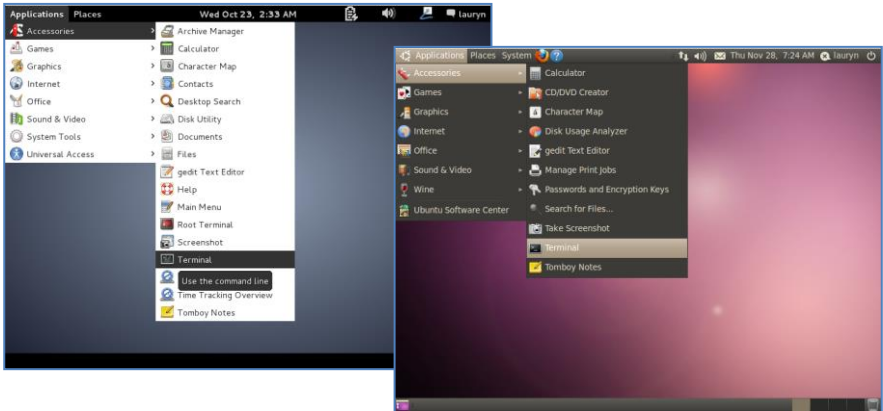
**Note:**

The MSI/ MSI-X set as disabled for the application of 1G LAN (RTL-8111/ 8168) on the units, and it could be set permanent by edition of file /boot/grub/grub.cfg.

## 4. Kernel and graphic driver installation.

Install the Kernel Package (Console mode).

- For Debian7.0, you can skip this procedure for kernel installation; Because system could work with default kernel version (3.2.0).
- Clicking the icon of the terminal from the application. And download the kernel 2.6.32-21 from below link then to store the kernel package.

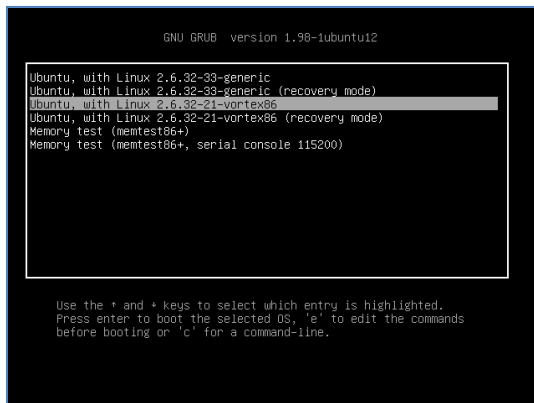


- Follow the instructions to complete the kernel installation, get into the folder that kernel file stored, and switching as the root before command executed.

```
# dpkg -i linux-image-2.6.32-21-vortex86_2.6.32-21.32_i386.deb
```

Kernel Package (click [2.6.32-21-Vortex86](#) )

- When download completed, restart the system and to choose the kernel 2.6.34.10 to boot when GRUB boot loader was loaded. You can keep pressing the key "Shift" when the system from booting, then the boot loader would show the option of kernel for you. Then find the "Ubuntu, With Linux 2.6.32-21-vortex86" to execute.



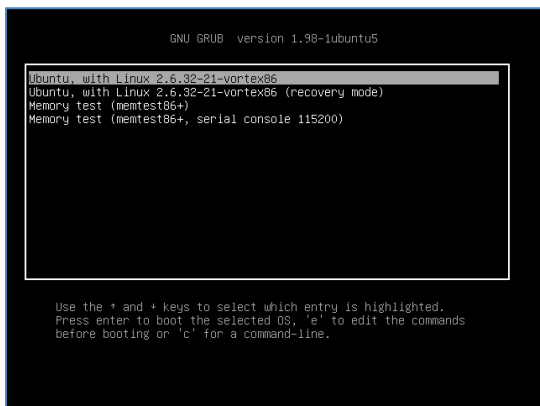
- Or you can remove the default kernel 2.6.32-??-generic that be arranged as a higher priority than the kernel we installed for the mating EBOX platform, with the instruction below through the terminal.
- First, check what version be installed as default in the system:

```
# grep -w linux-image-2.6.32 /var/log/dpkg.log
```

- To find the last two numbers as location of question marks that the system shows on screen "linux-image-2.6.32-??"
- Then execute it with the correct numbers that you found in previous, and to replace the question mark with correct version numbers shown below.

```
# apt-get remove linux-image-2.6.32-??-generic
```

- Then you would see only one kernel on the GRUB list.



## 5. Install the VGA driver (Console mode)

- Switch to console mode by pressing key <Ctrl> + <Alt> + <F1>, then copy the VGA driver `rdc_drv.so` to the driver folder `/usr/lib/xorg/modules/drivers/`, before that, you can download the driver from links below for Debian7 and Ubuntu10.04 individually.

The Ubuntu10.04 Xorg Version is **1.7.6**  
The Debian 7.0 Xorg Version is **1.12.4**

VGA Driver (click [M2012\\_R0.04](#) to download) for Ubuntu 10.04  
VGA Driver (click [M2012\\_T0.0.9.1](#) to download) for Debian 7.0

Note:

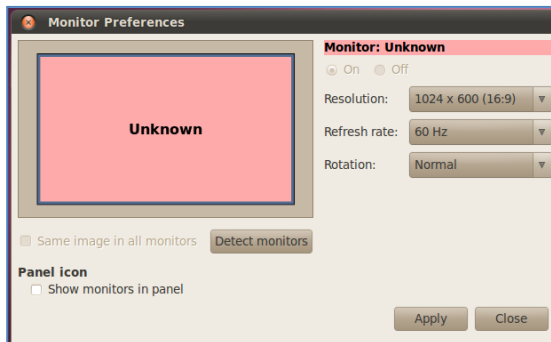
1. Above drivers were based on EBOX-333x Series platform.
2. For other model types, please fine the mating drivers at [EBOX Linux support page](#).

- Follow instruction below to execute.

```
#/etc/init.d/gdm stop
#X -configure
#cp /root/xorg.conf.new /etc/X11/xorg.conf
#/etc/init.d/gdm restart
```

※Please click [xorg.conf](#) to download for your system, if the display is out of range.

- Reboot and make sure all the display is normal then set the resolution as requested.



The supported resolutions:

1920x1200 (16:10)	1400x960	1280x768 (16:10)
1920x1080 (16:9)	1280x1024 (5:4)	1280x720 (16:9)
1600x1200 (4:3)	1440x900 (16:10)	1024x768 (4:3)
1680x1050 (16:10)	1280x960 (4:3)	800x600 (4:3)
1400x1050 (4:3)	1366x768 (16:9)	640x480 (4:3)
1440x960 (3:2)	1360x768 (16:9)	

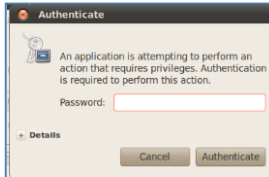


## 6. The system configuration:

### Enable the Auto login

#### System / Administration / Login Screen

Execute the utility “Login Screen” and enter the password to process it

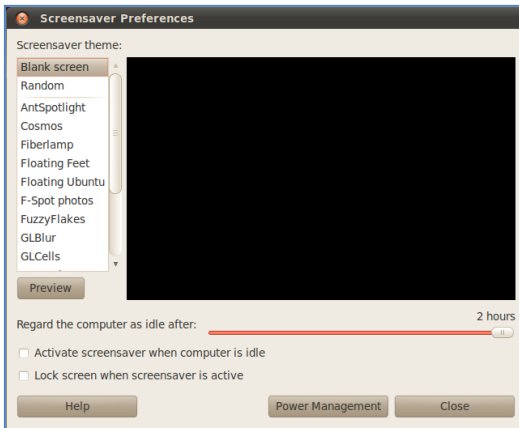


Set the Log in as “user account” automatically.



### Disable the power saving mode when system idle, System / Preference / Screensaver

Unmarked the option “Active the screensaver when computer is idle”



Now, it is a workable Linux system.