

# **Package USB**

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# 1 Documentation Of Package USB

## 1.1 USB - Support For USB Devices

**OPT\_USB** Supprt for USB devices in general is activated here. Only if 'yes' is entered here USB devices will get usable at all. If you have chosen an USB device in base.txt entering 'yes' here is mandatory. Otherwise the device can't be used. This activates support for USB sticks, external USB drives and USB keyboards as well.

Default setting: OPT\_USB='no'

**USB\_EXTRA\_DRIVER\_N** Number of drivers to load.

Default setting: USB\_EXTRA\_DRIVER\_N='0'

**USB\_EXTRA\_DRIVER\_x** Driver that should be loaded.

Possible values at the moment

- printer - support for USB printers
- belkin\_sa - USB Belkin Serial converter
- cyberjack - REINER SCT cyberJack pinpad/e-com USB Chipcard Reader
- digi\_acceleport - Digi AccelePort USB-2/USB-4 Serial Converter
- empeg - USB Empeg Mark I/II
- ftdi\_sio - USB FTDI Serial Converter
- io\_edgeport - Edgeport USB Serial
- io\_ti - Edgeport USB Serial
- ipaq - USB PocketPC PDA
- ir-usb - USB IR Dongle
- keyspan - Keyspan USB to Serial Converter
- keyspan\_pda - USB Keyspan PDA Converter
- kl5kusb105 - KLSI KL5KUSB105 chipset USB->Serial Converter
- kobil\_sct - KOBIL USB Smart Card Terminal (experimental)
- mct\_u232 - Magic Control Technology USB-RS232 converter
- omninet - USB ZyXEL omni.net LCD PLUS
- pl2303 - Prolific PL2303 USB to serial adaptor
- visor - USB HandSpring Visor / Palm OS
- whiteheat - USB ConnectTech WhiteHEAT

Default setting: USB\_EXTRA\_DRIVER\_x=""

**USB\_EXTRA\_DRIVER\_x\_PARAM** Parameters for the driver. Usually you won't need this.

Default setting: `USB_EXTRA_DRIVER_x_PARAM=""`

**USB\_MODEM\_WAITSECONDS** Default setting: `USB_MODEM_WAITSECONDS='21'`

Unfortunately Speedtouch USB Modems need a long time to get ready. In most cases the default setting of about 21 seconds is sufficient for initialisation. Sometimes the value can be halved and the Speedtouch USB modem is ready after 10 seconds. If this is the case you could set the value to 10 seconds. If you are unlucky the value has to be raised. Only testing can help you here.

### 1.1.1 Problems With USB Devices

There may be problems with some USB devices. This can have different causes, for example the driver software or the USB controller.

### 1.1.2 Hints For Use

It is important to ensure that the hardware USB support is enabled. Especially with onboard USB controllers that is important. For example a WRAP is shipped without USB port. USB is added only by an additional module and is therefore disabled in the BIOS by default.

### 1.1.3 Mounting Of USB Devices

Plugged USB devices will be detected automatically but must be mounted and unmounted 'by hand'. When plugging an USB stick it is recognized as a SCSI block device. For this reason is accomplished via device `sd#` for SuperFloppy devices or `sd#<Partition-number>` for devices with a partition table. USB drives are treated as hard disks and addressed as `sda1` and `sdb1` if plugged in two USB ports. USB floppies are addressed via `sda` or `sdb` without specifying a partition number.

Thus a first USB stick can be mounted to `/mnt` by executing

```
mount /dev/sda1 /mnt
```

A second one at the same would need

```
mount /dev/sdb1 /mnt
```

to be mounted. Devices are numbered in the sequence of plugging - first USB device = `sda`, second USB device = `sdb` a.s.o. This means that device numbering is not fixed but depending on the sequence of plugin. Unmounting is done via

```
umount /mnt
```

If using more than one USB device never mount all devices to the same directory. Create directories under `/mnt` for each device to be mounted. Make the directories by executing:

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```
mkdir /mnt/usba  
mkdir /mnt/usbb
```

Then specify the directories as destinations when mounting:

```
mount /dev/sda1 /mnt/usba  
mount /dev/sdb1 /mnt/usbb
```

The content of the USB devices can be found at /mnt/usba res. /mnt/usbb. Unmounting can be done via

```
umount /mnt/usba  
umount /mnt/usbb
```

If an USB device has more partitions the device directories under /mnt have to reflect this structure in subdirectories.

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