

TFTP upgrade instructor

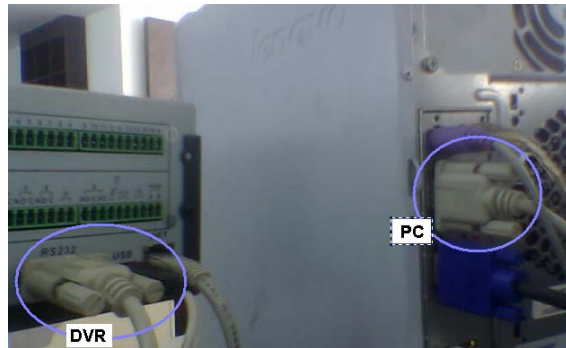
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1、 Hardware Environment & Connections

- 1) For RS232 operation, the devices are as follows:
PC, RS232 Cable, DVR, network cable
If there is only laptop computer, USB to RS232 cable is required.
- 2) Connection Mode is as follows:
PC --- RS232 cable --- DVR
PC--- through network --- DVR
DVR to laptop computer



DVR to pc



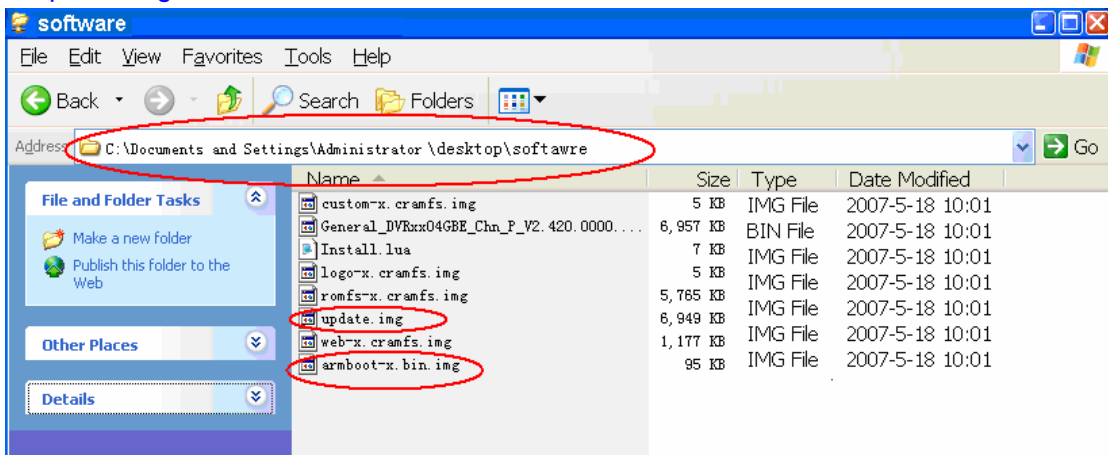
2、 TFTP Upgrade

1) Unzip the upgrade software to you PC

make sure there are this two files

[armboot-x.bin.img](#)

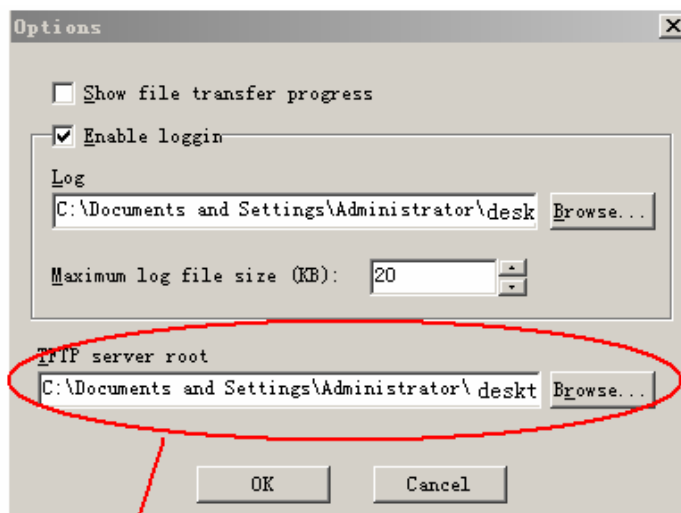
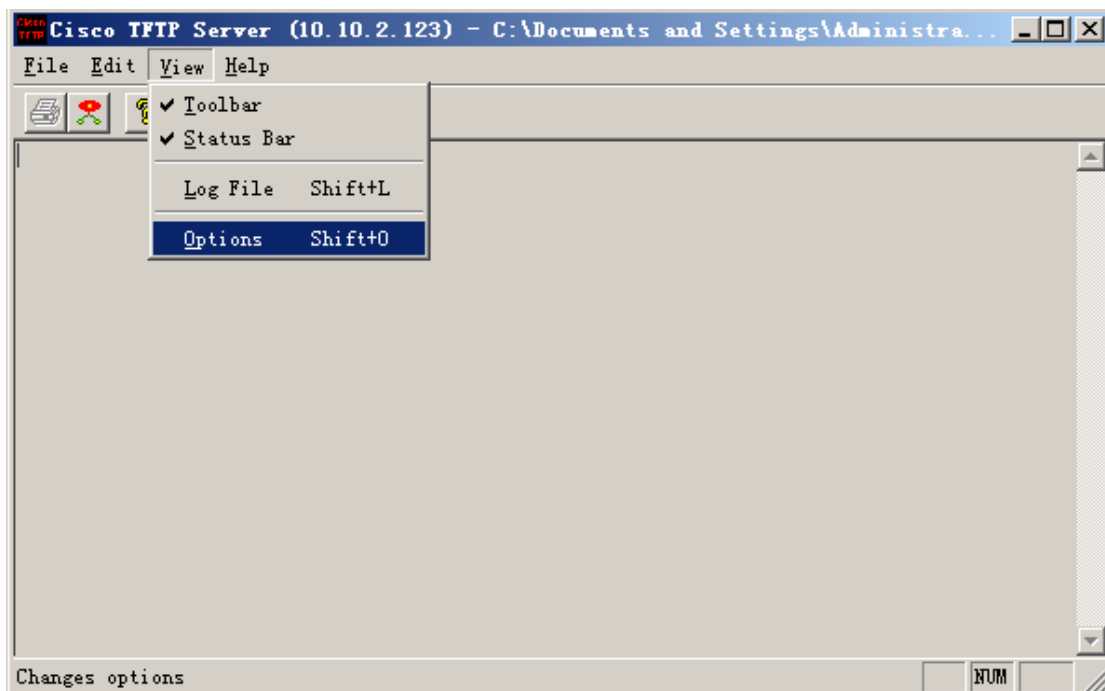
[update.img](#)



2) Run TFTP server

A、 Run TFTP server: [TFTPServer_En.exe](#)

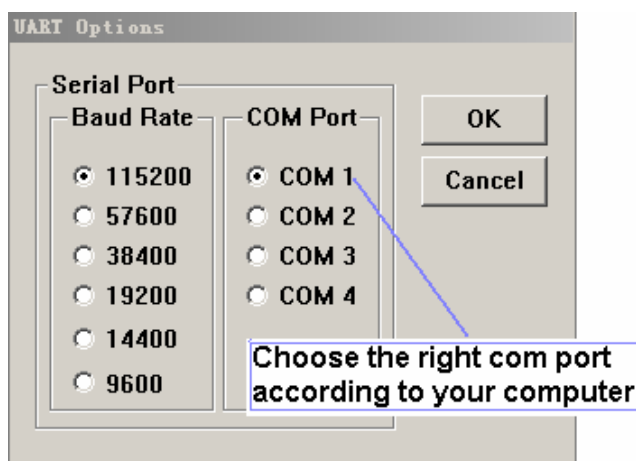
B、 Set the upgrade route in the TFTP server, please see the picture below



C:\Documents and Settings\Administrator\desktop\software

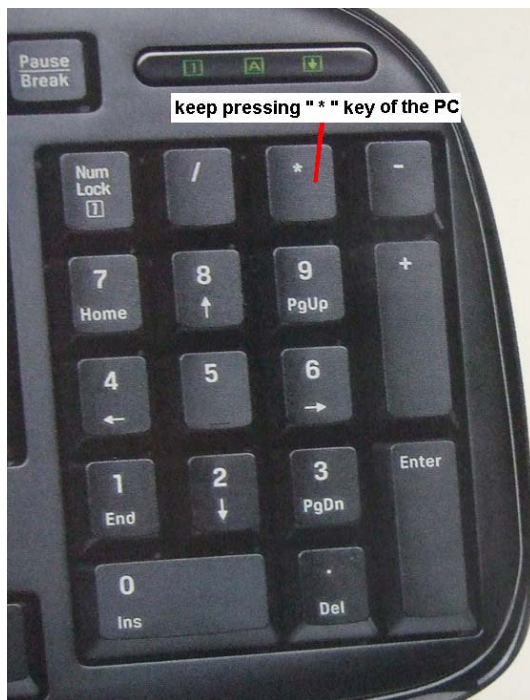
where the upgrade software located

3) Run **NOCM** in your computer, the com set is as follows:



4) See RS232 parameter

- A、Restart the DVR , press “ * ” key of your PC keyboard 3 times (upper right on number pad) when the words [Hit any key to stop autoboot](#) are on screen.



- B、Now you can enter TFTP menu, and will see [s3c2510 #](#) in the screen

```
WCOM v1.02 [COM1,115200bps]
File Options Help
Armboot version: v2.4.3 -- Jan 29 2007
Code range : 0x00000000 -> 0x0001c140
DRAM Configuration:
Bank #0: 00000000 64 MB
Flash: 8 MB
cp15 register r1: 0xC000107D
Instruction Cache is ON
cp15 register r1: 0xC000107D
Data (writethrough) Cache is ON
Write Buffer Control register: 0x0000000C
Write Buffer is ON
Serial: 00000000000000000000
HWADDR0: 00:05:ba:01:53:6e
DURID: 0x0045
Chan = 4; Product = 5; Func = 0; Ver = 0
Alarm-mode: V2.0
Hit any key to stop autoboot: 0
s3c2510 # ***
```

print *** quickly after you see this sentence

C、 Type "printenv" to show some information of the DVR

```
HC01 v1.02 [COM1,115200bps]
File Options Help
s3c2510 # printenv
bootcmd=fsload; go 40000
bootdelay=1
baudrate=115200
icache="on"
dcache="on"
wbuffer="on"
netmask=255.255.0.0
bootfile="image.cramfs.img"
HWADDR1=00:09:30:28:12:24
dh_keyboard=1
appauto=1
reserved_mem_version=1
da=protect off all; tftp 100000 armboot-x.bin.img; flwrite
80000000
dc=tftp A00000 custom-x.cramfs.img; flwrite
dr=tftp A00000 romfs-x.cramfs.img; flwrite
dw=tftp A00000 web-x.cramfs.img; flwrite
dl=tftp A00000 logo-x.cramfs.img; flwrite
tk=tftp 40000 linux.bin; go 40000
up=tftp A00000 update.img; flwrite
clean=erase 1:9-134
ID=00000000000000000000
ethaddr=00:05:ba:01:53:61
HWADDR0=00:05:ba:01:53:61
serverip=10.10.2.123
ipaddr=10.10.5.83
Environment size: 661/8188 bytes
s3c2510 #
```

remember the mac address

5) TFTP upgrade

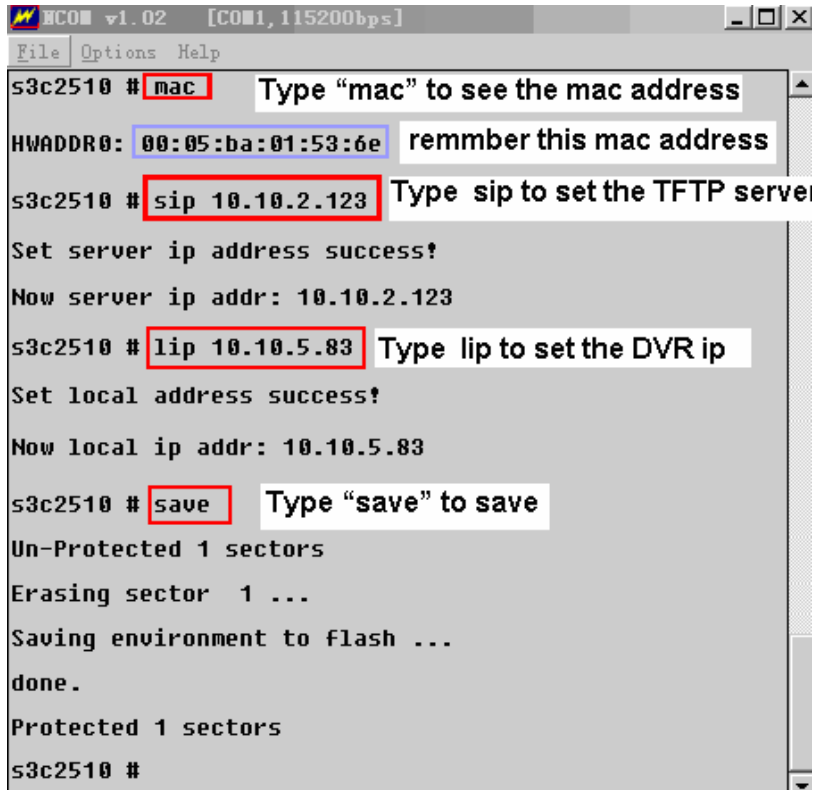
For DVR with New version software

A、Type "mac" to see the mac address

Type "sip ip address of the PC" to set the TFTP server ip

Type "lip ip address of the DVR" to set the DVR ip

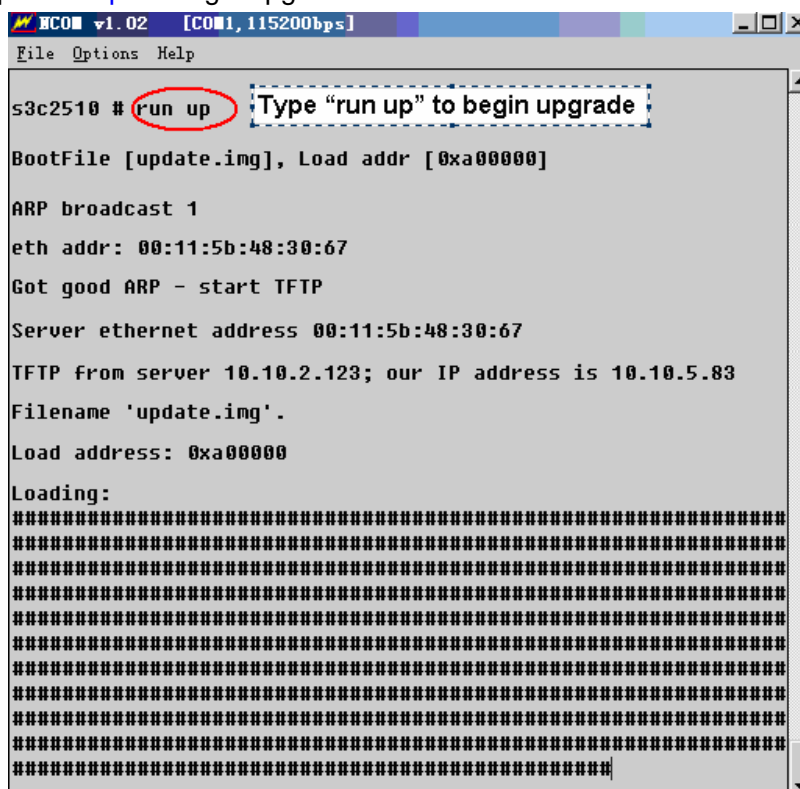
Type "save" to save



```
WCOM v1.02 [COM1, 115200bps]
File Options Help
s3c2510 # mac Type "mac" to see the mac address
HWADDR0: 00:05:ba:01:53:6e remmber this mac address
s3c2510 # sip 10.10.2.123 Type sip to set the TFTP server
Set server ip address success!
Now server ip addr: 10.10.2.123
s3c2510 # lip 10.10.5.83 Type lip to set the DVR ip
Set local address success!
Now local ip addr: 10.10.5.83
s3c2510 # save Type "save" to save
Un-Protected 1 sectors
Erasing sector 1 ...
Saving environment to flash ...
done.
Protected 1 sectors
s3c2510 #
```

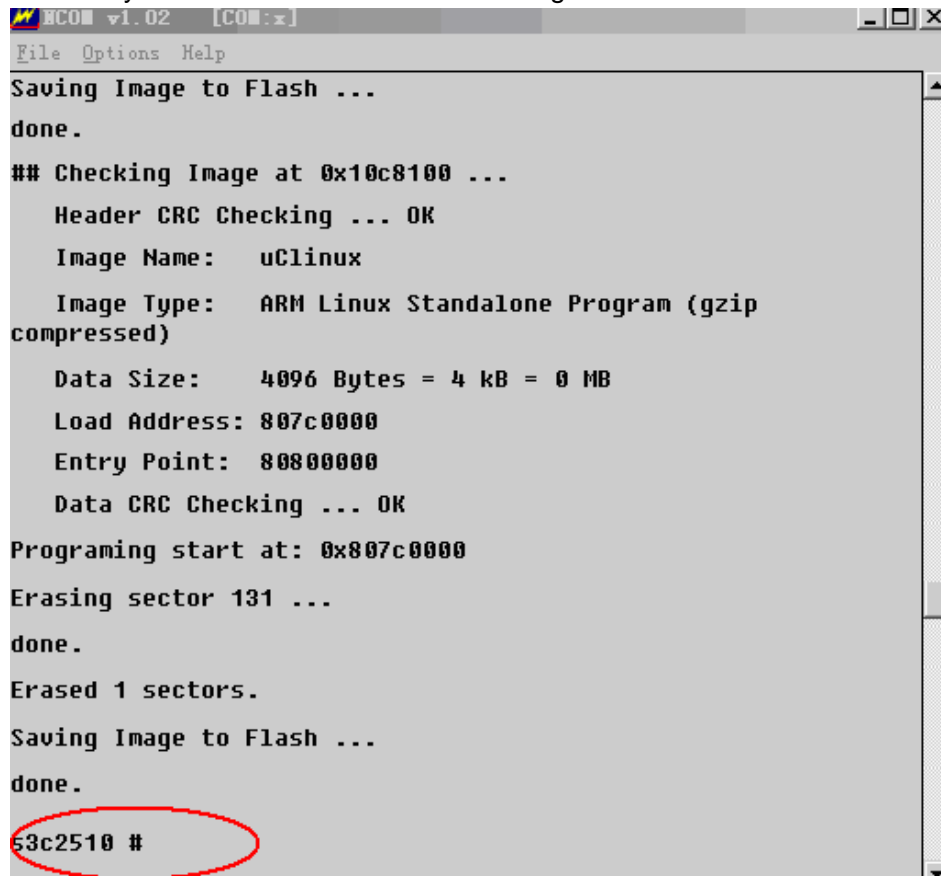
B、Restart the DVR , press * to Enter the TFTP menu again

Type "run up" to begin upgrade



```
WCOM v1.02 [COM1, 115200bps]
File Options Help
s3c2510 # run up Type "run up" to begin upgrade
BootFile [update.img], Load addr [0xa00000]
ARP broadcast 1
eth addr: 00:11:5b:48:30:67
Got good ARP - start TFTP
Server ethernet address 00:11:5b:48:30:67
TFTP from server 10.10.2.123; our IP address is 10.10.5.83
Filename 'update.img'.
Load address: 0xa00000
Loading:
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
#####
```

C. Wait until you see `s3c2510 #` in the screen again



```
HC0M v1.02 [COM1:~]
File Options Help
Saving Image to Flash ...
done.
## Checking Image at 0x10c8100 ...
Header CRC Checking ... OK
Image Name: uClinux
Image Type: ARM Linux Standalone Program (gzip
compressed)
Data Size: 4096 Bytes = 4 kB = 0 MB
Load Address: 807c0000
Entry Point: 80800000
Data CRC Checking ... OK
Programing start at: 0x807c0000
Erasing sector 131 ...
done.
Erased 1 sectors.
Saving Image to Flash ...
done.
s3c2510 #
```

D. Restart the DVR, and that's all

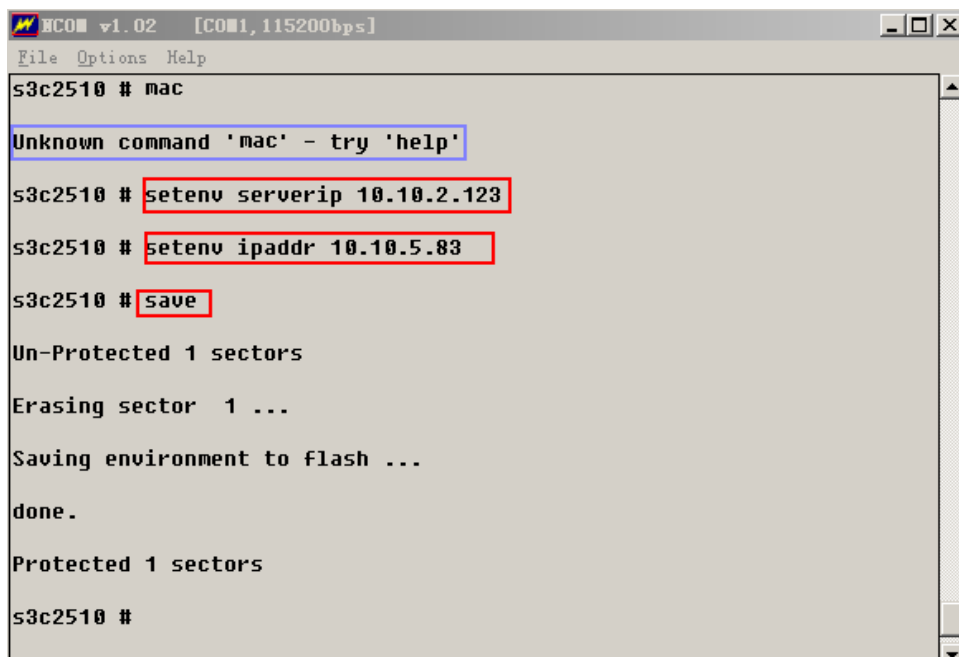
For DVR with old version software

A. Type `mac`, you will see `Unknown command 'mac' - try 'help'` on the screen, that means, this DVR with an old version software

Type `setenv serverip address of the PC` to set the TFTP server ip

Type `setenv ipaddr ip address of the DVR` to set the DVR ip


Type `save` to save



```
HC0M v1.02 [COM1,115200bps]
File Options Help
s3c2510 # mac
Unknown command 'mac' - try 'help'
s3c2510 # setenv serverip 10.10.2.123
s3c2510 # setenv ipaddr 10.10.5.83
s3c2510 # save
Un-Protected 1 sectors
Erasing sector 1 ...
Saving environment to flash ...
done.
Protected 1 sectors
s3c2510 #
```

- A、 Restart the DVR , press * to Enter the TFTP menu again ,
Type "run da" to upgrade armboot software, it will take about 30-40 seconds
Do not use this command if not necessary
- B、 Wait until you see s3c2510 # in the screen again

**Attention: Never do anything that will stop the upgrade armboot
Such as : power off the DVR , disconnect the network ,
disconnect the RS232 cable**

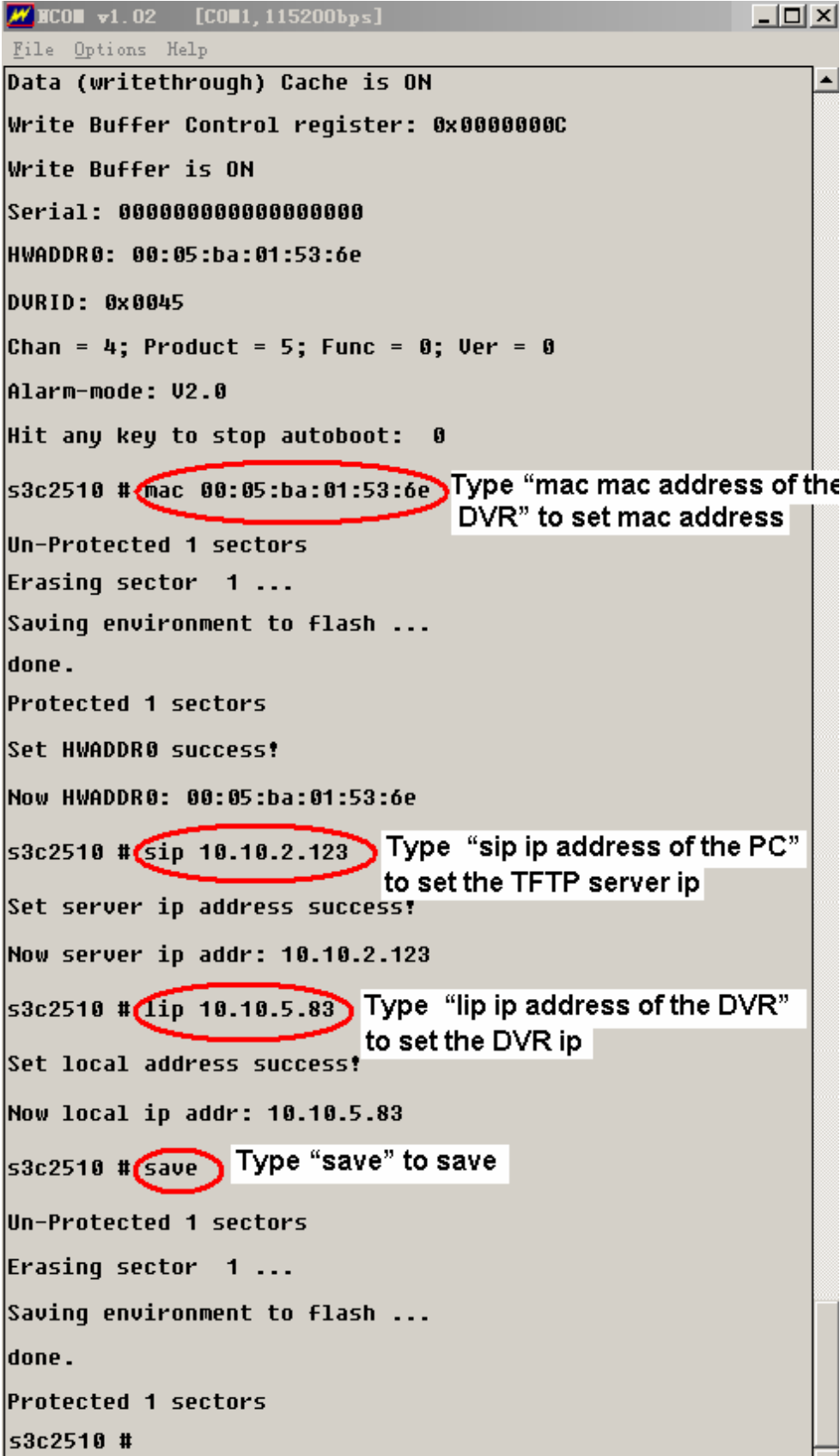


```
MCU v1.02 [COM1, 115200bps]
File Options Help
s3c2510 # run da Type "run da" to upgrade armboot software
Un-Protect Flash Bank # 1
BootFile [armboot-x.bin.img], Load addr [0x100000]
ARP broadcast 1
eth addr: 00:11:5b:48:30:67
Got good ARP - start TFTP
Server ethernet address 00:11:5b:48:30:67
TFTP from server 10.10.2.123; our IP address is 10.10.5.83
Filename 'armboot-x.bin.img'.

Load address: 0x100000

Loading: #####
done
Bytes transferred = 97134 (17b6e hex)
## Checking Image at 0x100000 ...
  Header CRC Checking ... OK
  Image Name:  uClinux
  Image Type:  ARM Linux Firmware (gzip compressed)
  Data Size:   97158 Bytes = 94 kB = 0 MB
  Load Address: 80000000
  Entry Point:  80020000
  Data CRC Checking ... OK
Programing start at: 0x80000000
Erasing sector 0 ...
Erasing sector 1 ...
Erasing sector 2 ...
Erasing sector 3 ...
Erasing sector 4 ...
Erasing sector 5 ...
Erasing sector 6 ...
Erasing sector 7 ...
Erasing sector 8 ...
done.
Erased 9 sectors.
Saving Image to Flash ...
done.
Un-Protected 1 sectors
Erasing sector 1 ...
Saving environment to flash ...
done.
Protected 1 sectors
s3c2510 # Wait until you see s3c2510 # in the screen again
```

- C、 Restart the DVR , press * to Enter the TFTP menu again
Type “mac mac address of the DVR” to set mac address
Type “sip ip address of the PC” to set the TFTP server ip
Type “lip ip address of the DVR” to set the DVR ip
Type “save” to save



```
COM v1.02 [COM1,115200bps]
File Options Help
Data (writethrough) Cache is ON
Write Buffer Control register: 0x00000000
Write Buffer is ON
Serial: 00000000000000000000
HWADDR0: 00:05:ba:01:53:6e
DURID: 0x0045
Chan = 4; Product = 5; Func = 0; Ver = 0
Alarm-mode: U2.0
Hit any key to stop autoboot: 0
s3c2510 # mac 00:05:ba:01:53:6e Type "mac mac address of the
DVR" to set mac address
Un-Protected 1 sectors
Erasing sector 1 ...
Saving environment to flash ...
done.
Protected 1 sectors
Set HWADDR0 success!
Now HWADDR0: 00:05:ba:01:53:6e
s3c2510 # sip 10.10.2.123 Type "sip ip address of the PC"
to set the TFTP server ip
Set server ip address success!
Now server ip addr: 10.10.2.123
s3c2510 # lip 10.10.5.83 Type "lip ip address of the DVR"
to set the DVR ip
Set local address success!
Now local ip addr: 10.10.5.83
s3c2510 # save Type "save" to save
Un-Protected 1 sectors
Erasing sector 1 ...
Saving environment to flash ...
done.
Protected 1 sectors
s3c2510 #
```


F、Restart the DVR, and that's all

6) Upgrade Failure

- 1、To check if the RS232 serial port and serial cable is OK
- 2、To check if the network connection is OK
- 3、To check if the mac address of the DVR is right
- 4、To check if the upgrade software is in the right folder and with right name
- 5、To check if the NCOM and TFTP software is running
- 6、Upgrade by TFTP upgrade again
- 7、After several times attempt, if there is still have problems, please contact with our technical engineers.

Attention: Do not use run da to upgrade if not necessary
Never do anything that will stop upgrade run da

More Details

If you still have any problems about these functions, please contact with our engineers.