



# **DCH-5000P/5100P/1500P of PBI Digital Headend Product Upgrade Procedure**

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## 1. Software Upgrade Set up

Before upgrading the digital TV headend equipment, please check whether the Hardware and Software are compliant in the release note.

The upgrade can be launched via IP network. Connect the equipment to a PC via a cross over CAT-5 (RJ45) LAN cable or a normal cable using IP switch/hub. Please ensure that the equipment and the PC are in the same local area network(LAN) before upgrade. The default IP address of equipment is [10.10.70.48](http://10.10.70.48), and you can check the IP address from LCD screen on front panel.

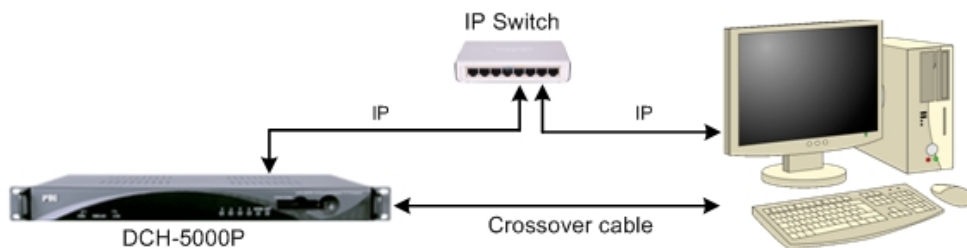


Figure 1: IP Connection Diagram

There are three software files to be used for upgrade. Their information is described in following table.

Number	Firmware Name	Description
1	target1.cod	Software for Linux kernel
2	target2.cod	Software for ARM7+FPGA+IP-IN+IP-OUT
3	target3.cod	Software for ST-71XX

You must to upgrade the three files strictly in their order, from 1 to 3. Please follow the following step by step procedure.

**Important: DON'T switch off the equipment and your PC during the software upgrade.**

## 2. Software Upgrade Procedure

1. Turn on the equipment until the booting is completed. You can check the IP address from the LCD screen on front panel, the default IP address is [10.10.70.48](http://10.10.70.48). Please make sure that the equipment and your PC are in the same IP network, refer to Figure 1.
2. Open MS-DOS window by typing **Start** on the lower left quarter of Windows OS. Select **Run** and key in “cmd” in dialog and press **Enter**. Type the command “telnet 10.10.70.48”; the current IP address of the equipment under software upgrade as below.

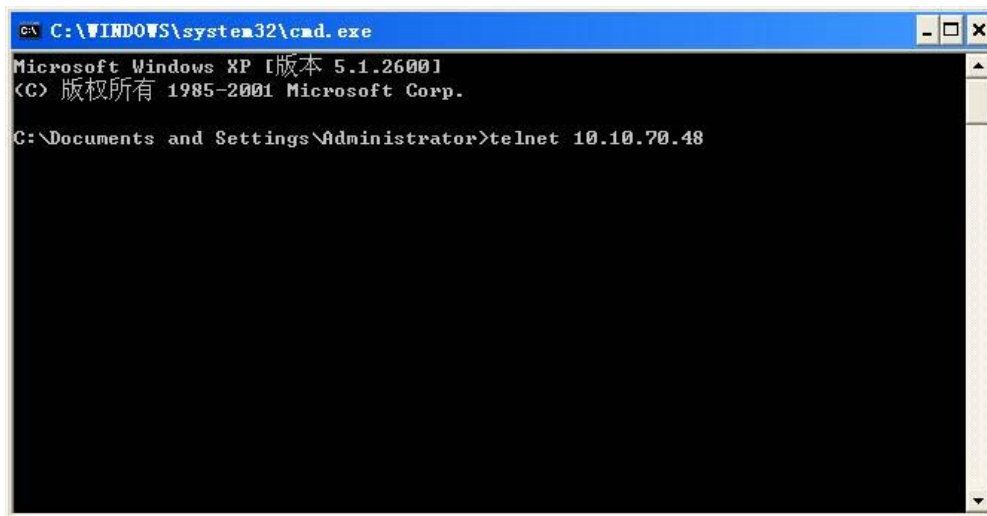


Figure 2: Open MS-DOS Window

3. Type **Enter** to go into the login window. Use “root” as login name and “12345” as password. If the login name and password are correct, a message “Sash command shell <version 1.1.1>” will appear in the figure 3.

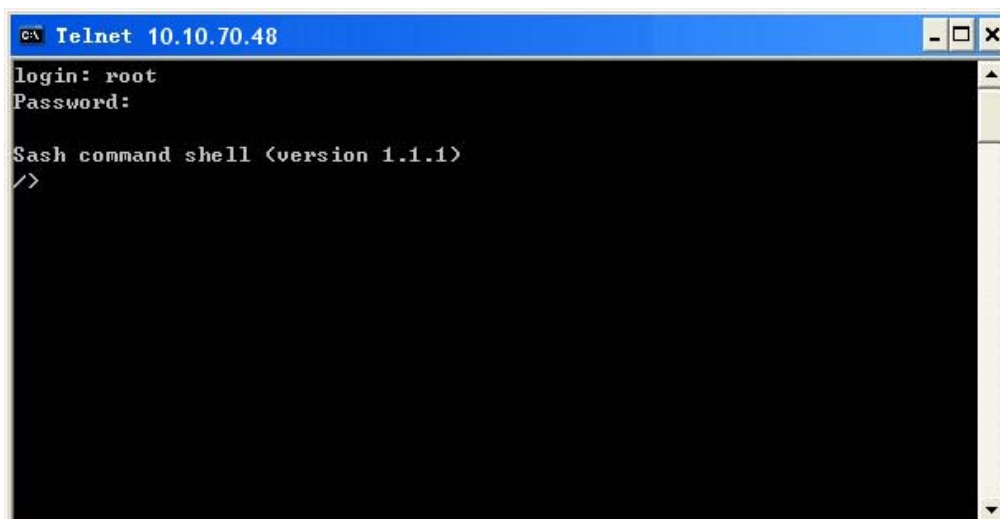


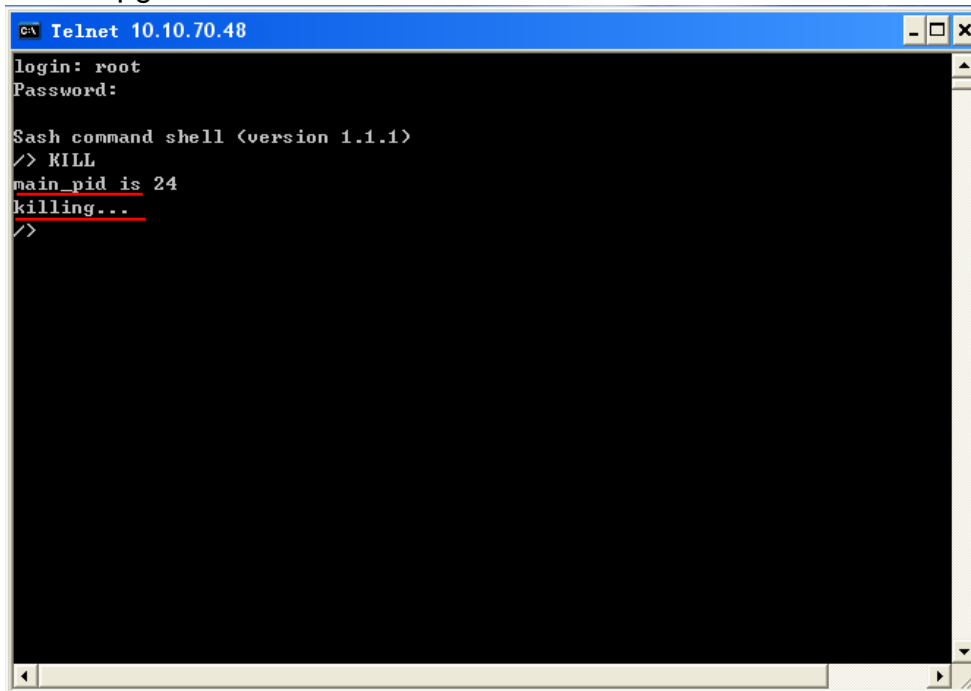
Figure 3: Login Menu

4. Key in “KILL” command in capital and press **Enter**. This command will

remove and clean some data in the memory of the equipment and it will make the upgrade successful.

**Important Note:** If the software version is lower than 50PR0016(for 5000P), 51PR0007(for 5100P) or 15PR0005(for 1500P), the “KILL” command can not be used, please refer the step 6-8 in this case.

5. If the information “main\_pid is xx” and “killing...” is shown, it means the “KILL” command takes effect. Then go to the step 9 to continue the software upgrade.

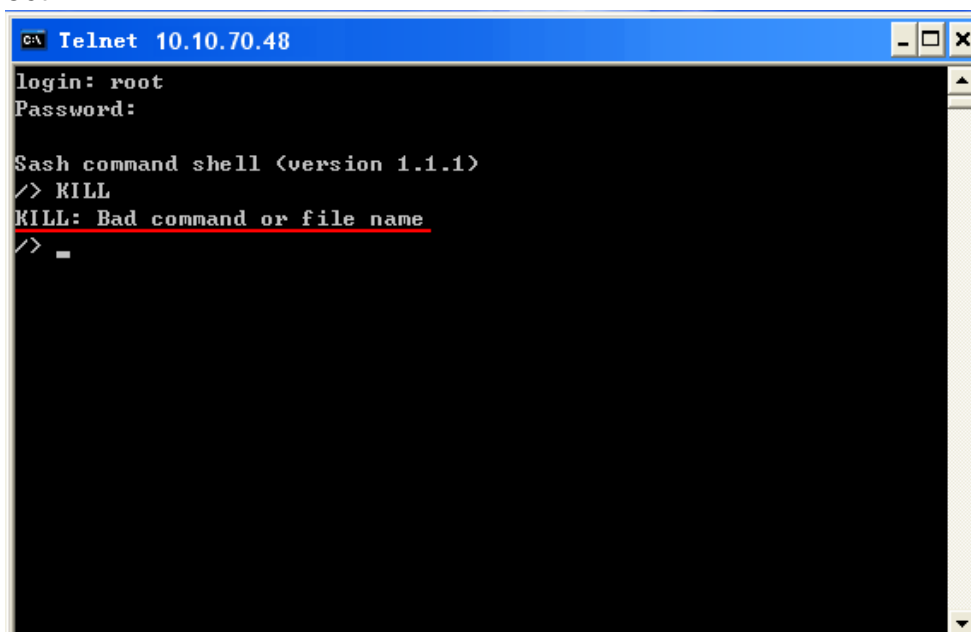


```
C:\> Telnet 10.10.70.48
login: root
Password:

Sash command shell (version 1.1.1)
/> KILL
main_pid is 24
killing...
/>
```

Figure 4: KILL Command

6. If the information “Bad command or file name” is shown, it means the software is a lower version and the “KILL” command does not take any effect.

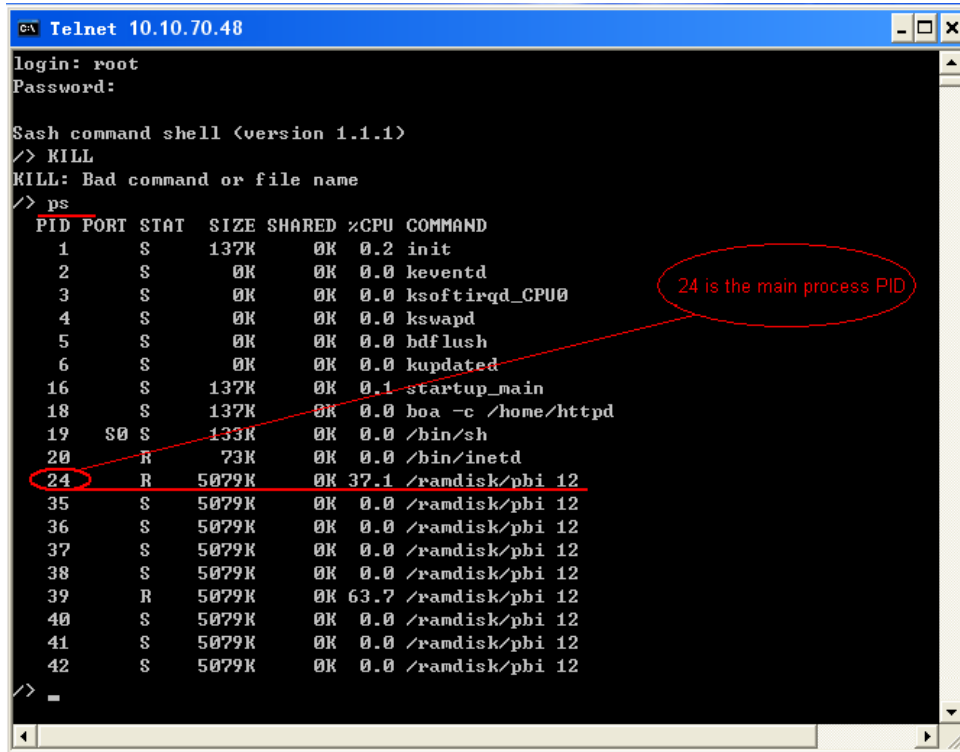


```
C:\> Telnet 10.10.70.48
login: root
Password:

Sash command shell (version 1.1.1)
/> KILL
KILL: Bad command or file name
/> _
```

Figure 5: Bad Command

7. Key in “ps” and press **Enter**, all the process will be listed as in the figure 6. The first line displaying “pbi xx” is the main process. Write down the main process PID value, for example “24”.



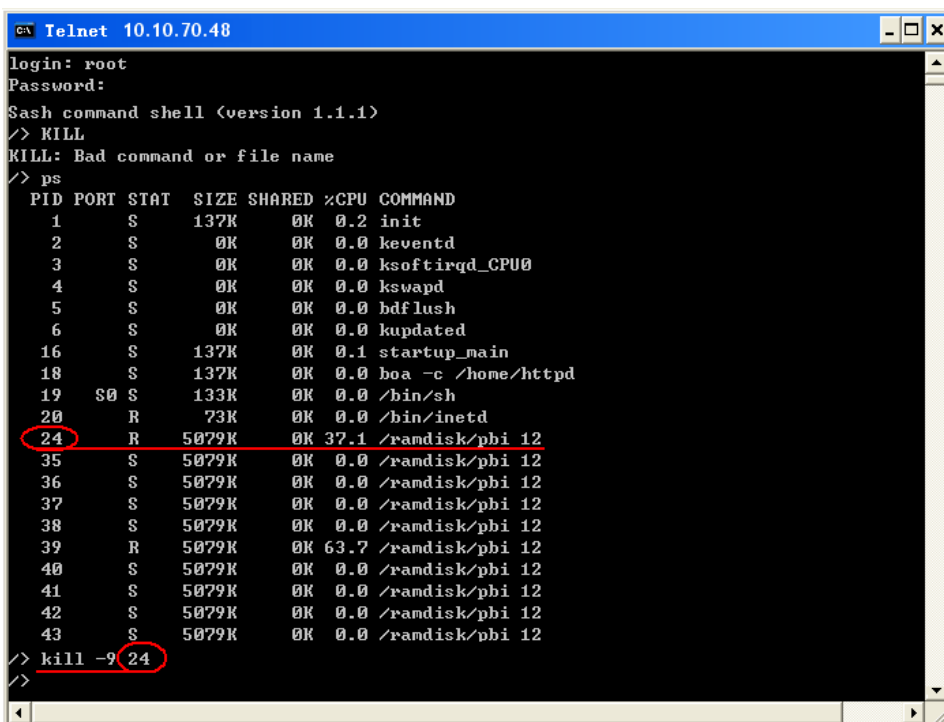
```

Telnet 10.10.70.48
login: root
Password:
Sash command shell (version 1.1.1)
/> KILL
KILL: Bad command or file name
/> ps
  PID  PORT  STAT  SIZE  SHARED  %CPU  COMMAND
   1    S    137K   0K    0.2    init
   2    S     0K   0K    0.0    keventd
   3    S     0K   0K    0.0    ksoftirqd_CPU0
   4    S     0K   0K    0.0    kswapd
   5    S     0K   0K    0.0    bdflush
   6    S     0K   0K    0.0    kupdated
  16    S    137K   0K    0.1    startup_main
  18    S    137K   0K    0.0    boa -c /home/httpd
  19   S0 S    133K   0K    0.0    /bin/sh
  20    R     73K   0K    0.0    /bin/inetd
  24    R    5079K  0K   37.1    /randisk/pbi 12
  35    S    5079K  0K    0.0    /randisk/pbi 12
  36    S    5079K  0K    0.0    /randisk/pbi 12
  37    S    5079K  0K    0.0    /randisk/pbi 12
  38    S    5079K  0K    0.0    /randisk/pbi 12
  39    R    5079K  0K   63.7    /randisk/pbi 12
  40    S    5079K  0K    0.0    /randisk/pbi 12
  41    S    5079K  0K    0.0    /randisk/pbi 12
  42    S    5079K  0K    0.0    /randisk/pbi 12
  43    S    5079K  0K    0.0    /randisk/pbi 12
/>

```

Figure 6: PS Command

8. Use the command “kill -9 xx” and press **Enter**. Please note that “xx” is the main process PID number. This command will remove some data in the equipment and release more memory to new software.



```

Telnet 10.10.70.48
login: root
Password:
Sash command shell (version 1.1.1)
/> KILL
KILL: Bad command or file name
/> ps
  PID  PORT  STAT  SIZE  SHARED  %CPU  COMMAND
   1    S    137K   0K    0.2    init
   2    S     0K   0K    0.0    keventd
   3    S     0K   0K    0.0    ksoftirqd_CPU0
   4    S     0K   0K    0.0    kswapd
   5    S     0K   0K    0.0    bdflush
   6    S     0K   0K    0.0    kupdated
  16    S    137K   0K    0.1    startup_main
  18    S    137K   0K    0.0    boa -c /home/httpd
  19   S0 S    133K   0K    0.0    /bin/sh
  20    R     73K   0K    0.0    /bin/inetd
  24    R    5079K  0K   37.1    /randisk/pbi 12
  35    S    5079K  0K    0.0    /randisk/pbi 12
  36    S    5079K  0K    0.0    /randisk/pbi 12
  37    S    5079K  0K    0.0    /randisk/pbi 12
  38    S    5079K  0K    0.0    /randisk/pbi 12
  39    R    5079K  0K   63.7    /randisk/pbi 12
  40    S    5079K  0K    0.0    /randisk/pbi 12
  41    S    5079K  0K    0.0    /randisk/pbi 12
  42    S    5079K  0K    0.0    /randisk/pbi 12
  43    S    5079K  0K    0.0    /randisk/pbi 12
/> kill -9 24
/>

```

Figure 7: Located the Main Process PID

- Open the IE browser and type <ftp://10.10.70.48> in the address bar and press **Enter**. If the network configuration is correct, you can open the FTP folder without any error as in the figure 8.
- Copy the “target1.cod” file in the FTP folder, as shown below.

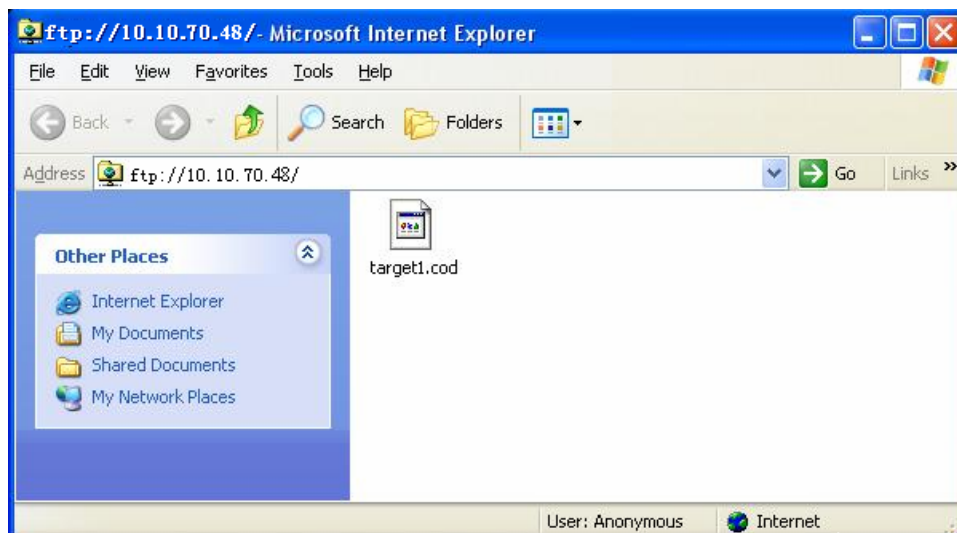


Figure 8: Copy “target1.cod” File

- Go back to the MS-DOS window, key in the command “upgrade” and press **Enter**. The upgrade process will be launched and it will take a few minutes.

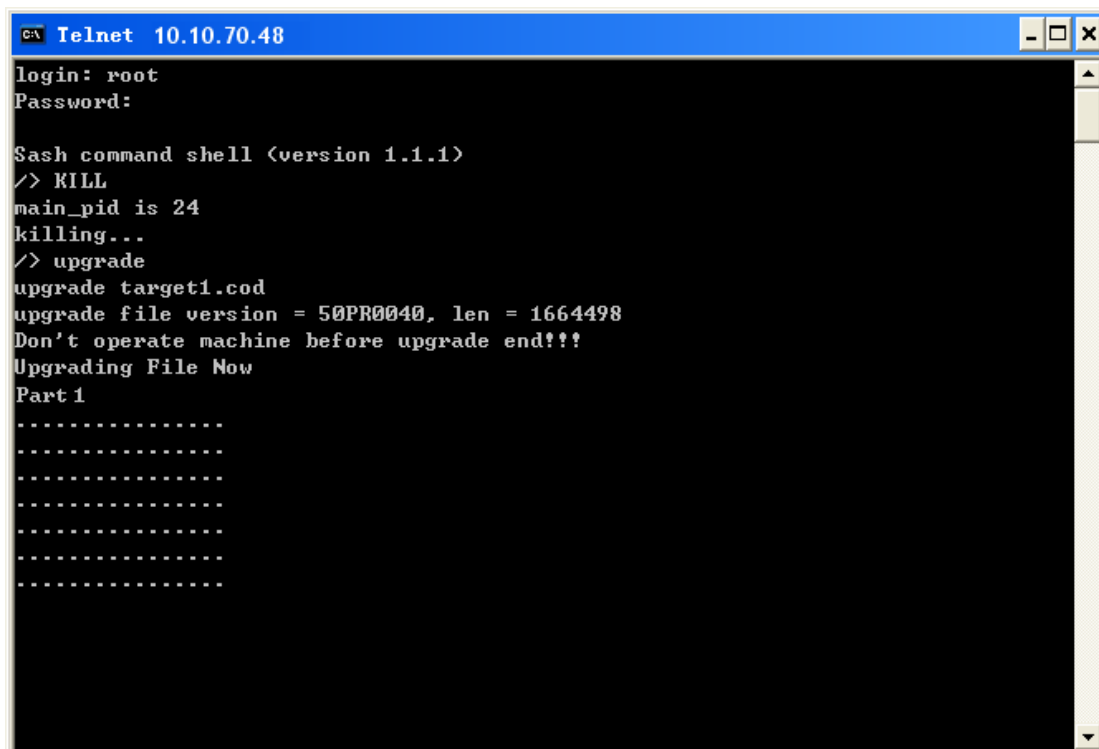


Figure 9: Upgrade Command





### **3. Trouble Shooting**

1. The IP address of equipment must be in the same local area network(LAN) with the host PC.
2. Use a cross over CAT 5 RJ-45 cable to connect the equipment and the host PC directly or connect them using normal RJ-45 cable through a IP hub/switch.
3. The host PC used for software upgrade have to have only one network card installed to avoid data connection port error
4. The MS-DOS command “Telnet” is hidden in Windows-Vista OS, please activate it before upgrade. Please refer to Vista operation manual for details.
5. The operation procedure to access the FTP server in IE 7.0 browser is different from its previous version. Please follow the on-line guide reported by IE 7.0

## **4. Contact Us**

To get further support, please contact PBI Technical Support Center:

**PBI Technical Support:**

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