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## **How to upgrade the new firmware.**

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### **Abstract**

Our Set-Top-Boxes ("STB") are delivered with stable and easy-to-use software, passing our strict quality controls. However, we are steadily updating our software to improve functions or add-ups to your convenience. We recommend to upgrade your STB by our newly released updates to enjoy better functionality and stability.

Please visit our <http://www.i-topfield.com> to stay updated on helpful updates, utilities, drivers and manuals. You can also find information on new product releases and the latest corporate news.

Following Upgrade methods are available for your STB.

- (1) STB to STB download via RS232C
- (2) PC to STB download via RS232C
- (3) OTA
- (4) PC to STB download via USB

### **Pin Assignment for serial cables (RS232, 9-Pin)**

The pin assignment of serial cables (RS232) are applied as below:

PC pin 2 <-> STB pin3

PC pin 3 <-> STB pin2

PC pin 5 <-> STB pin5

For the upgrade through the serial interface, only the above mentioned 3 pins are applied. The other 6 pins do not require any attention.

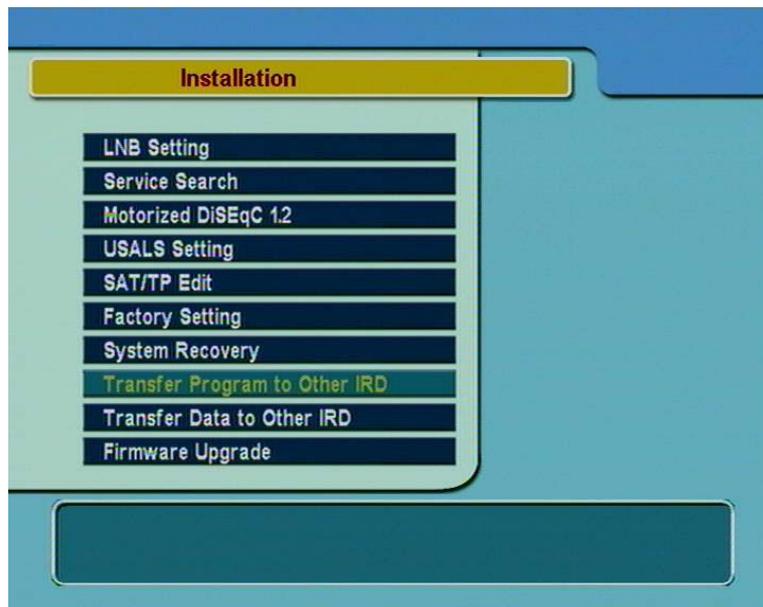
## How to upgrade the new firmware.

### **STB to STB download via RS232C**

This method is mostly used for STBs including PVR when equipped with a serial port (RS232). Somehow provider specific models do not have the port integrated, due to security reasons. In such cases the **STB to STB download via RS232C** is not supported.

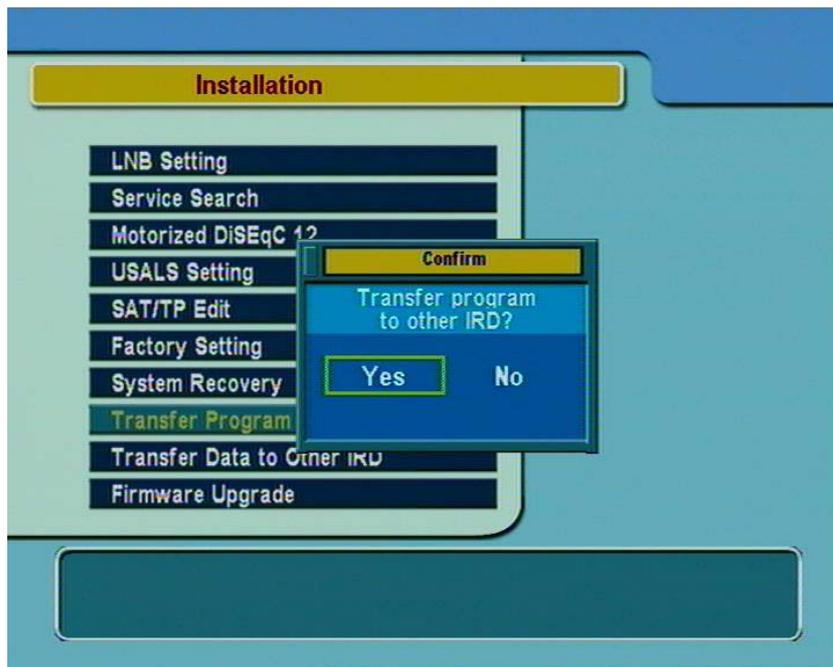
Please refer to the downloading sequence as below:

1. Turn off the target STB.
2. Connect the parent STB and the target STB with a serial cable (RS232C).
3. Select **Transfer Firmware** in the **Installation** menu of the parent STB.  
(Some models show **Transfer Program to Other IRD** instead of **Transfer Firmware**. But you can proceed in the same sequence. Please refer to the screen shots shown below.)



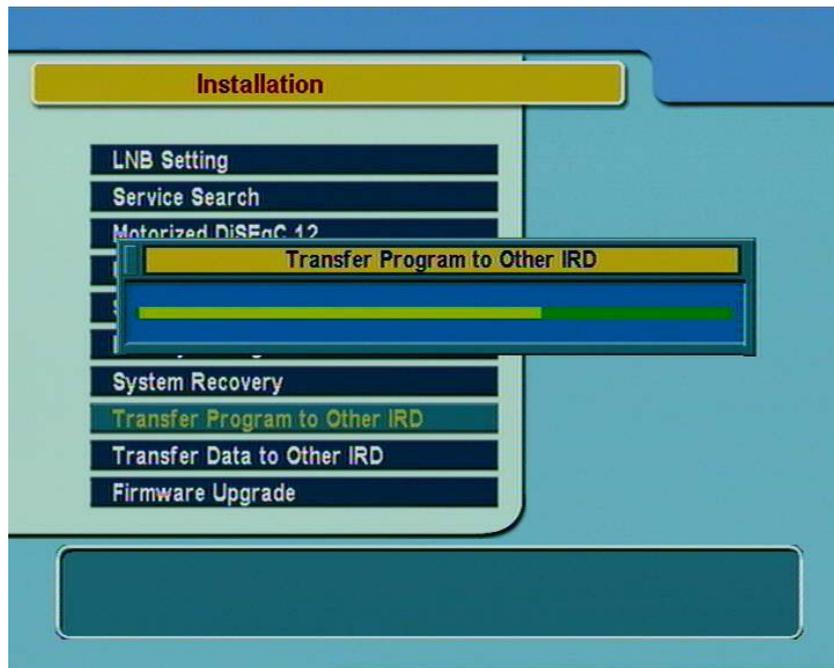
**How to upgrade the new firmware.**

4. Select **Transfer Program to Other IRD** menu of the parent STB.
5. Confirm with **Yes**.



## How to upgrade the new firmware.

6. Then turn on the target STB and the download starts automatically.



7. Please do not interrupt the download process before complete finish. Even when the process bar reaches the end, the writing process of the flash memory might not be completed and could cause fatal effects. The completion will be shown by displaying 'End' in the display of the front panel. Models without a display indicate the complete procedure by blinking of the green LED on the front panel.

8. Turn off the target STB.
9. Remove the RS232C cable.

## How to upgrade the new firmware.

### PC to STB download via RS232C

This method is also very common among STBs including PVR.

Somehow provider specific models do not have the port integrated, due to security reasons. In such cases the **STB to STB download via RS232C** is not supported.

We provide following two utilities to ease the upgrade procedure:

-**TFD-DOWN.exe** : For all models except Irdeto CAS embedded models (e.g. TF5000PVR)

-**SDL Downloader.exe**: Irdeto embedded models (e.g. TF3200IR)

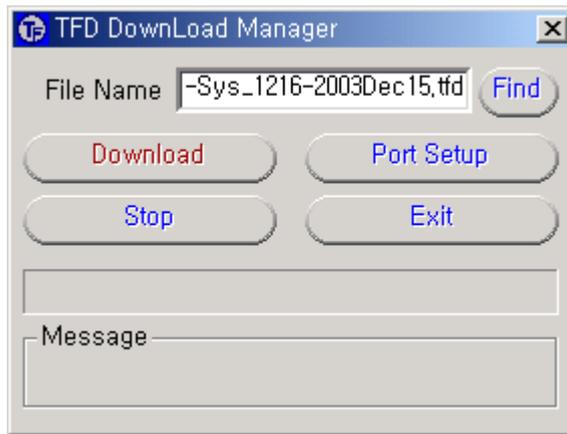
Please refer to the downloading sequence as below:

1. Download the **Utility** suitable to your STB onto your PC.
2. Turn off the target STB.
3. Connect the PC and target STB through a serial cable (RS232C).
4. Run the **Downloading Utility**.

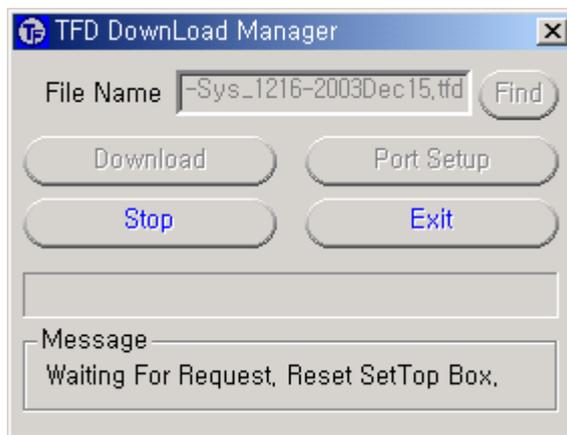


### How to upgrade the new firmware.

- By clicking the **Find** button, you will have access to your system tree to choose the required new firmware file. After your selection the adequate file name will be displayed in the **File Name** bar

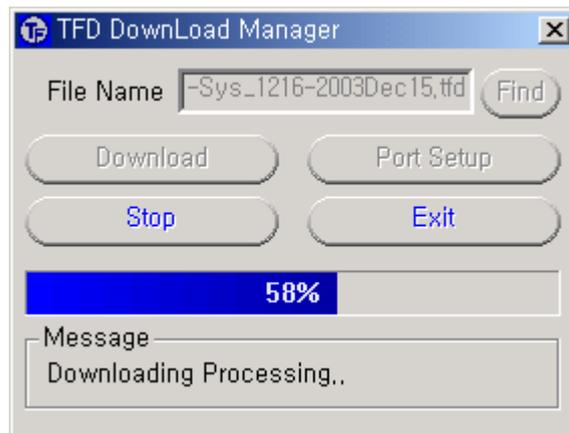


- After clicking the **Start** icon of the **Downloading Utility**, the next screen shot will be displayed as shown below.



## How to upgrade the new firmware.

7. Turn on the target STB and the download will automatically start.



8. Please do not interrupt the download process before complete finish. Even when the process bar reaches the end, the writing process of the flash memory might not be completed and could cause fatal effects. The completion will be shown by displaying 'End' in the display of the front panel. Models without a display indicate the complete procedure by blinking of the green LED on the front panel.

9. Turn off the target STB.

10. Remove the RS232C cable.

## How to upgrade the new firmware.

### **OTA (Over - The - Air Upgrade)**

This method is currently mostly used for digital satellite receivers incl. PVRs and allow you to receive new updates only by setting up the adequate parameters of the specific satellite transponder and the upgrade will be executed automatically over the air.

The OTA upgrade is available for following models.

- |                  |                  |
|------------------|------------------|
| 1) TF5500PVR     | 2) TF5000PVR     |
| 3) TF4000PVR     | 4) TF4000PVRCOCI |
| 5) TF5000CI      | 6) TF5000Fe      |
| 7) TF4000Fe      | 8) TF4000Fi      |
| 9) TF3000Cipro   | 10) TF3000COCI   |
| 11) TF3000CIPpro | 12) TF3000Fei    |
| 13) TF3000Fi     | 14) TF3030F      |
| 15) TF3100FEPpro |                  |

The launch of new updates will only be done on availability.

Please refer to the downloading sequence for the OTA update as below:

1. Select **Firmware Upgrade** in the **Installation** menu of the parent STB.  
OTA upgrades are currently only supported over the Astra and Hotbird4 transponders.
2. Set all necessary parameters. (Please refer to the TP parameters as shown bellow)

<b>Astra</b>	<b>Hotbird 4</b>
Frequency: 12603 MHz	Frequency: 12673 MHz
S/R: 22000 KS/s	S/R: 27500 KS/s
Polarity: Horizontal	Polarity: Vertical
PID: 347	PID: 730

Please set the parameters suitable for your area and footprint.

3. Start the OTA upgrade, please select the **Start** button and press **OK**.  
An OTA upgrade takes up to several minutes for the download due to the limited bandwidth.

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**How to upgrade the new firmware.**

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For your convenience, we provide you with contingently information on further available satellites or transponder details. You can add or change them easily to your STB. Detailed information are released on [www.i-topfield.com](http://www.i-topfield.com).

## How to upgrade the new firmware.

### PC to PVR download via USB (Universal Serial Bus)

This method requires STBs equipped with a USB interface. We currently only support this method on our TF5000 PVR.

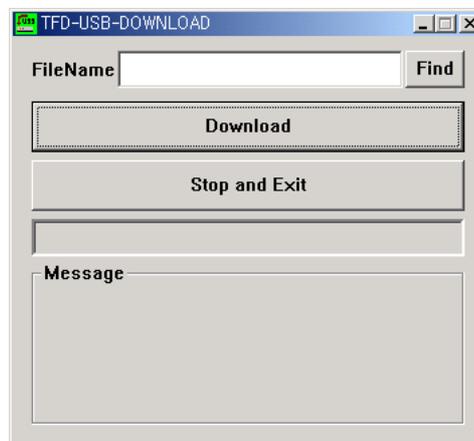
Please refer to the downloading sequence as below:

1. Please download the zip file **Software download tool for USB (TFDN\_USB)**, which includes the two driver files **tfbulk.sys** and **tfbulk.inf** from our website.

Extract the downloaded file to a separate directory (Please refer to the instructions of your zip tool). Our USB driver is currently supporting MS Windows 9.x, NT/2000/XP. To install the driver, please select the **tfbulk.inf** file click the right mouse button. By choosing the **Install** menu point, the two driver files are copied automatically to the appropriate directories in your system.

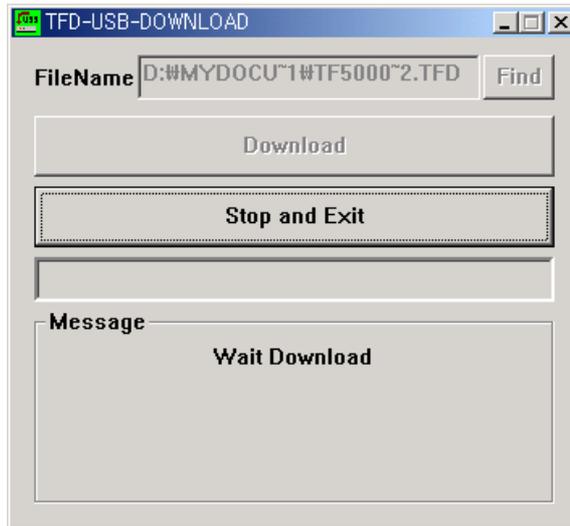
After the driver installation explained above, execute the tool **TFDN\_USB.exe**.

2. Turn off the STB.
3. Connect the STB with your PC through a USB cable.
4. Start the download software (TFDN\_USB).
5. By clicking the **Find** button, you will have access to your system tree to choose the required new firmware file. After your selection the adequate file name will be displayed in the **File Name** bar.

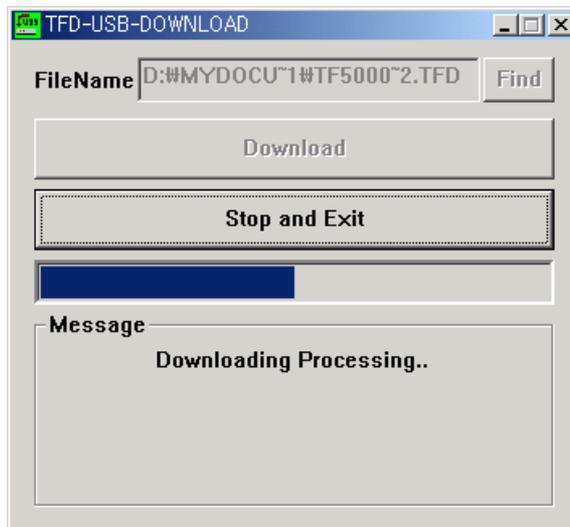


## How to upgrade the new firmware.

6. Click the **Download** icon to start the download procedure.



7. Now turn on the target STB and the download will start automatically.



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**How to upgrade the new firmware.**

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7. Please do not interrupt the download process before complete finish. Even when the process bar reaches the end, the writing process of the flash memory might not be completed and could cause fatal effects. The completion will be shown by displaying '**End**' in the display of the front panel.

8. Turn off the target STB and remove the USB cable.

**IMPORTANT: If you should encounter conflicts with your operating system and the USB port, we strongly recommend to download the Windows USB patch, which can be downloaded on Microsoft's website (<http://www.microsoft.com>)**