

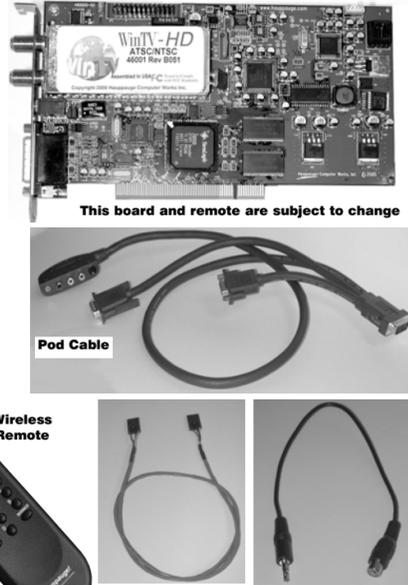
# Hauppage! WinTV-HD

## Quick Installation Guide for Windows® 98/Me/2000

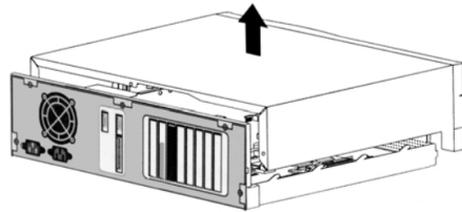
**Note:** The WinTV-HD requires the latest version of Windows98, known as Windows98-SE, any version of Windows2000 or WindowsMe.  
**Note:** We recommend a PII 600 or better for recording transport streams to you hard disk.

### Contents of the WinTV-HD package

- WinTV-HD board**
- Pod Cable**, with A/V inputs, IR connection and Monitor interface
- External Audio cable - 1/8" miniplug** to 1/8" miniplug.
- S/PDIF cable**, to convert LineOut jack to Phono plug for S/PDIF Applications
- Internal Audio Connector**, Connect Analog Audio Internal to your sound card.
- Wireless Remote** with 2 AAA batteries.
- Remote receiver** with velcro fastener.
- WinTV-HD for Windows Installation CD-ROM** with: WinTV driver and application Remote control application Utilities
- VGA to Y-Pr-Pb Adapter**
- Wireless Remote**
- Remote receiver (IR)**
- Internal Audio Connector**
- S/PDIF Cable**

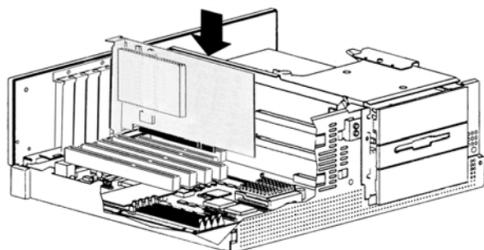


### Step 1: Prepare the computer



Switch off the computer.  
 The manufacturer of your PC supplies instructions on removing the PC cover.  
 Remove the cover.

### Step 2: Install the WinTV-HD board



Locate a free PCI slot (a short white slot).  
 Unscrew and remove the metal cover plate which covers the back of the empty slot.  
 Plug the **WinTV-HD** board into the PCI slot, and screw the WinTV's metal cover plate to the PC.

### Step 3: Connect the WinTV-HD cables

The WinTV-HD board has two coax video connectors: one for a **UHF/VHF TV antenna** and one for **cable TV**. Screw your UHF/VHF antenna (a rooftop antenna is recommended for digital TV reception in most areas) into the **Antenna connector**. Plug your cable TV connection to the **Cable TV connector**.

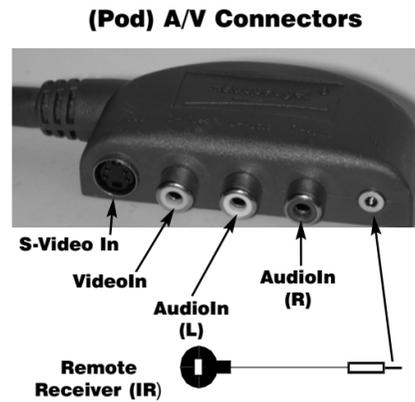
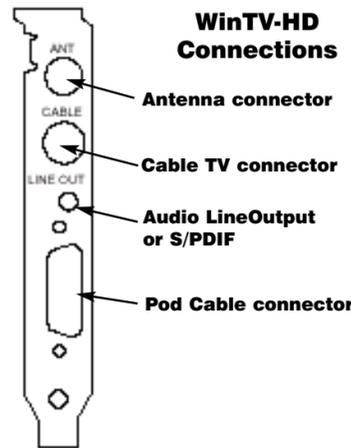
One end of the **External Audio cable (1/8" minijack)** should be plugged into **WinTV-HD's Audio LineOutput**, and the other end plugged into the **Line-In connector** on your PC's sound card for stereo speaker sound.

If you are connecting the **WinTV-HD** to a Home Theater system which uses a Digital sound input, the **WinTV-HD's S/PDIF** adapter lets you convert the 1/8" Line-Out jack to a

**Digital sound RCA jack**. See **Step 3a** below.  
 Plug the Pod Cables' **26-pin male connector** into the **WinTV-HD Pod Cable connector**.

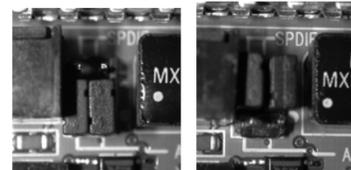
The yellow **VideoIn jack**, the 4pin **S-Video In connector** and the **Audioln (L) and (R)** on the Pod Cable can be used to input analog audio/video from a VCR, camcorder, DVD player or satellite TV receiver.

The **Remote receiver (IR)** is plugged into the **Pod Cable's (IR) plug**. Use the Velcro dot to position the Remote Receiver (IR) where it will be able to receive line of sight, infra-red commands from the Remote Transmitter.



### Step 4: Using the S/PDIF & Internal Analog connectors

**S/PDIF Jumper setting**  
 To configure the WinTV-HD for an external S/PDIF decoder, place the **2 Shunt jumpers vertically** on the top half of **jumper JP4**. This routes the S/PDIF output to the **Audio LineOutput** mini stereo connector. Then connect the supplied **S/PDIF cable** between the **Audio Line-Out jack** on the WinTV-HD back panel connector and a **Digital input on your Home Theater system**.



Analog audio setting JP4 (Factory default) | S/PDIF audio setting JP4

**Internal Analog Audio Connector**  
 When using the **S/PDIF output** for audio from your digital channels, audio from your analog TV channels comes from the Internal Analog Audio connector.

- Connect one end of the supplied internal audio cable to connector **JP2** on the **WinTV-HD**
- Connect the other end to your sound card's black internal audio input connector.

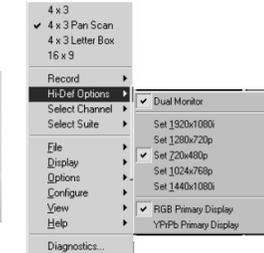
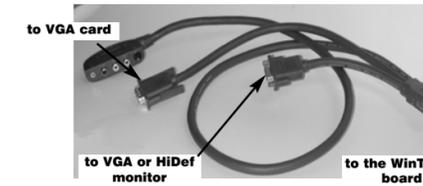


### Step 5: Single and Dual Monitor Setup

**Single Monitor mode (SMS)**  
 In Single Monitor mode, you can watch analog and digital TV-in-a-window plus see Hi-Def TV full screen on your VGA monitor. Remove your VGA monitor cable from your VGA card and connect it to the short leg of the Pod cable labeled "MONITOR". Now, connect the long leg of the Pod cable labeled "VGA" to your VGA card.

**Dual Monitor mode (DMS)**  
 In Dual Monitor mode, you can watch analog and digital TV-in-a-window on your VGA screen, plus at the same time see Hi-Def TV full screen on another Hi-Def monitor or another VGA monitor. Connect your high definition

monitor to the short leg of the Pod cable labeled "**MONITOR**". Leave your VGA monitor connected to your VGA card. During operation you need to tell the software you are in DMS. Right click the mouse button on the TV screen and keep the right mouse button depressed for a few seconds until you'll see the Settings menu pop up. Then go to Hi-Def Options and click Dual Monitor. If you are using the supplied **VGA to Y-Pr-Pb adapter**, check **YPrPb Primary display** as your Primary display. You can choose the Hi-Def output resolution by clicking one of the Set resolutions settings.



### Step 6: Install the WinTV driver for Windows



**5a.** When re-starting Windows for the first time after the **WinTV-HD** board has been installed, the Add New Hardware Wizard will appear. **Click Next**. Select Search for the best driver for your device **Recommended** **Click Next**.

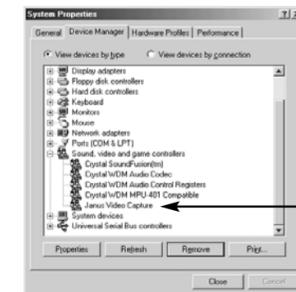


**5b.** When you see the above dialog box, insert the WinTV Windows Installation CD-ROM into your CD-ROM drive. Select **CD-ROM drive** and click **Next**.

**5d.** You will see a number of files being copied to your hard disk drive.



**5e.** Click **Finish**. You will need to reboot your system for the changes to take effect.



**5f.** The **WinTV-HD** will be listed in Device Manager in Sound Video and Game controllers as **Janus Video Capture**

### Step 7: WinTV Software installation



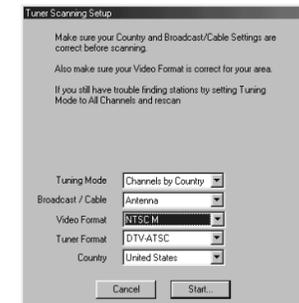
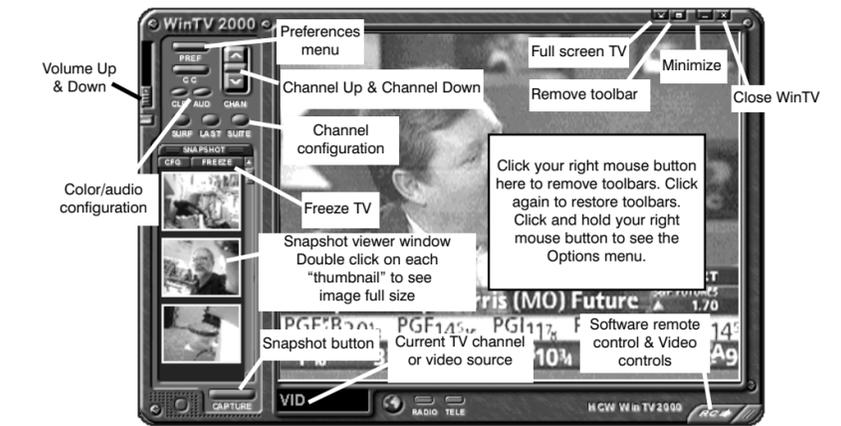
After the PC reboots the **WinTV Application Setup** will be run.

To use the remote control, make sure **Install the Hauppauge IR Remote Control Application** is checked.

Click **Install** to install the **WinTV2000**.

After the Setup program is complete, you will see a **WinTV2000 icon** on your Windows desktop. To run the **WinTV2000** application, double click on the **WinTV2000 icon**. After rebooting your PC, the Remote Control will be enabled.

### Step 8: The new WinTV2000 application



### Scanning for channels

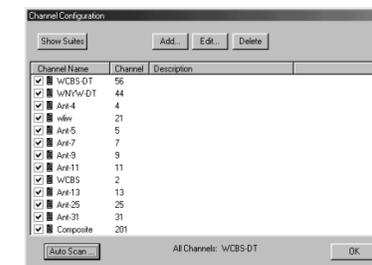
When running **WinTV2000** for the first time, you will need to scan for your HDTV channels. The **WinTV-HD** board has two coax video connectors: a UHF/VHF TV antenna connector and a cable TV connector. You will need to scan for TV channels on each connector.

When scanning the UHF/VHF Antenna Connector, set the Tuner Format to **DTV-ATSC**. Make sure the Broadcast entry is set to Antenna. When scanning the Cable Connector for HDTV channels, set the Tuner Format to **MN**. Make sure the Broadcast entry is set to **Antenna** or **Cable** for regular cable channels.

### Setting up the channels

After you have scanned for channels, you can add the channel names. To do this, click on the Suite button on **WinTV2000**. Then double click on Input Sources. Chose **Tuner** for the **Antenna**, or **Tuner2** for **Cable TV**

Click on the desired channel, then click on **Edit**. Change the **ChannelName** to the name of the station. Then click **OK**.



## Step 9: Manually Adding HDTV channels

HDTV is broadcast over the airwaves. To receive **HDTV**, a **UHF/VHF rooftop antenna** is recommended in most areas of the U.S. In cities, a bowtie antenna can often be used if positioned near a window facing the Digital TV broadcaster.

Since HDTV is broadcast over the air, it is necessary to position the antenna to point at the Digital TV transmitter. We have included a utility in the WinTV application to **help position the UHF/VHF TV antenna**.

To position the UHF/VHF antenna, do the following:

- use the supplied list of Digital TV stations to find a HDTV channel which broadcasts in your area. For example, in Cleveland, WKYC broadcasts HDTV on channel 2.

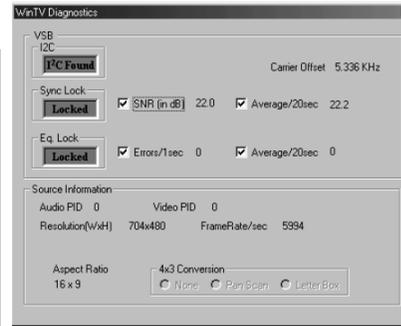
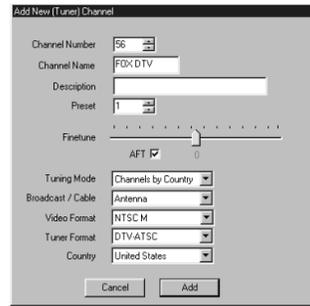
- open the Channel Suite Manager. To do this, click on the Suite button on **WinTV2000**, or click on **Configure/Channels/SuiteManager** on the WinTV32 application. Then double click on Input Sources. Click on **Tuner** to see the Digital TV antenna configuration.

- Then click **Add**. Enter the HDTV Channel Number (for example: 2 for WKYC in Cleveland) and the Channel Name. Make sure Broadcast is set to **Antenna**, and that Tuner Format is set to **DTV-ATSC**. Click Add and then **OK**.

- Now, open the **diagnostics menu** to help adjust your UHF/VHF antenna. Hold the **CTRL** button on your keyboard down while **clicking the right mouse button**. Keep the right mouse button depressed for a few seconds, and you'll see a menu pop up. Click on the last line, **Diagnostics**.

- Now slowly rotate your antenna until the **Sync Lock** and **Eq. Lock** lights turn **green**. This indicates that the UHF/VHF antenna is pointed to the DTV transmitter.

**NOTE: A higher (SNR) number means a stronger signal.**



## Step 11: Recording and playing back HD TV programs

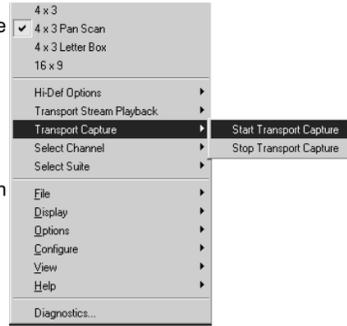
High definition digital TV is broadcast in a format called the **MPEG2 Transport Stream**. The MPEG 2 Transport Stream is the complete digital information from the broadcast transmission, and includes video, audio and any data broadcast with the show (close captioning data, program guide data, etc.).

When you record a High Definition TV show to your PC's hard disk, you are actually recording the entire MPEG2 Transport Stream to disk. Once recorded to disk, this Transport Stream can be played back through the **WinTV-HD**, where the video is decoded and displayed on your monitor.

### Recording an HD TV program to disk

To record a HD TV program to your hard disk:

- Right click** the mouse button on the TV screen and **hold it** depressed for a few seconds until the **Settings** menu pops up. Then highlight **Transport Capture** and click on **Start Transport Capture**.
- The **Select Stream to Play** dialog box will open. You can change the default file name and change the directory where you want the file recorded. Click **Save** and you will start recording.
- To stop recording, **right click** the mouse button on the TV screen and **hold it** depressed for a few seconds until the **Settings** menu pops up. Then highlight **Transport Capture** and click on **Stop Transport Capture**.



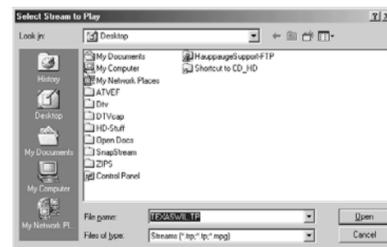
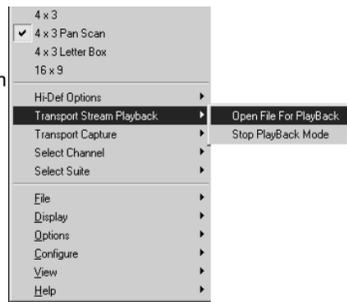
Recording HD-TV consumes a lot of disk space. Every 10 minutes of HD uses about 2 Gigabytes of hard disk space. The **WinTV-HD** creates new file names approximately every 10 minutes (every 2 Gigabytes) of recording. On playback, the **WinTV-HD** automatically plays these files uninterrupted so you see smooth playback.

### Playing back a HD TV program

To play back your recorded file:

- Right click** the mouse button on the TV screen and **hold it** depressed for a few seconds until the **Settings** menu pops up. Then highlight **Transport Stream Playback** and click on **Open File For PlayBack**.
- The **Select Stream to Play** dialog box will open. The last recorded program will be listed in the file name box. If this is the program you want to playback, click **open** and your recorded file will play. Otherwise, select the program from the file list and then click **open**.
- To stop the playback, **right click** the mouse button on the TV screen and **hold it** depressed for a few seconds until the **Settings** menu pops up. Then highlight **Transport Stream Playback** and click on **Stop Playback Mode**.

**Note:** If your recorded .tp file exceeds 1.96gig, the recording program will automatically start a new file with the extension xxxxx.#1.mpg xxxxx#2.mpg and so on.



## Keyboard shortcuts

+ channel up

- channel down

**Page Up** Volume Up

**Page Down** Volume Down

**Ctrl M** Mute audio

**Ctrl P** Image print

**Ctrl T** Full screen TV

**Ctrl F** Image freeze

**Ctrl C** Image Copy to the clipboard

## Quick Troubleshooting Guide

**Note:** Our web site has information on installing the **WinTV-HD** and software updates. **WinTV-HD** software updates can be found at: [http://www.hauppage.com/html/sw\\_tvhd.htm](http://www.hauppage.com/html/sw_tvhd.htm)

**Note:** The **WinTV-HD** requires the latest version of Windows98, known as Windows98SE, any version of Windows2000 or WindowsMe.

### Install ERROR 69:

If you receive **ERROR 69**, see included bulletin.

### - Incompatible motherboards

We recommend the use of a motherboard with an Intel chipset because some older motherboards do not fully support the **WinTV-HD**. We have software updates on our web site which will fix incompatibilities found with several VIA and SIS-based motherboards. Please see [http://www.hauppage.com/html/sw\\_wcst.htm](http://www.hauppage.com/html/sw_wcst.htm) in the **Tips** section.

### - Poor image when running WinTV in 256-color mode

Many VGA's cannot run WinTV in 256-color mode. Instead, run in 16-bit mode or higher.

### - No TV audio from your PC's Left and Right speaker

Be sure your PC's audio mixer **LineIn** setting is not muted, and at a reasonable volume level. If the **LineIn** setting is not muted, you can verify that the **WinTV-HD** card is working by connecting self-amplified speakers directly to the **A/V cable's** 1/8" miniplug. Use the supplied **Adapter** if necessary.

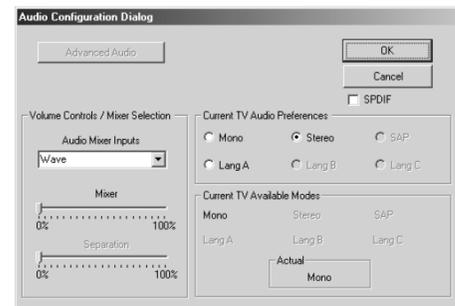
### - System lockups or error messages when running WinTV2000

Some VGA cards have memory conflicts with **WinTV-HD**. To fix this, try switching PCI slots. Also, you can increase the memory range used by the **WinTV-HD** board in **Device Manager**. To do this, look under **Sound, video and game controllers**, double click on the **Janus Capture** section, click on **Resources**, unclick **Use Automatic settings** and double click on **Memory range**. In the **Edit memory range** dialog box, there are small up/down arrows next to **Value**. Click the little **up arrow** a couple of times. Make sure there are no conflicts. Then click **OK** and then **OK** again. When it says **Created a forced configuration**, click **Yes**. Then reboot your PC.

### - Poor TV Reception or Not detecting all channels:

Poor HDTV reception is generally the result of a weak TV signal. When using a 'roof-top' antenna, an aerial booster may be required. If you find that some or all of the channels have not been detected, you can insert channels manually. See **Step 8**.

## Step 10: Configuring audio



### Basic audio setup

To configure the **WinTV-HD** audio for your speaker configuration, click on **Configure / Audio**.

Set **Audio Mixer Inputs** to **Wave Volume**. You should hear sound from a TV channel. If you do not hear audio, refer to the next section: "Quick Troubleshooting Guide."

**NOTE:** When S/PDIF audio, check **S/PDIF** in the dialog box and **Jumper JP4** accordingly (Step 4).