

WinTV-PVR-150 WinTV-PVR-250 WinTV-PVR-350

Personal Video Recorder Quick Installation Guide

© Hauppauge Computer Works, Inc. 2002-2005

Hauppauge Computer Works, Inc.
91 Cabot Court
Hauppauge, NY 11788

Telephone: 631-434-1600
Fax: 631-434-3198
Tech Support: 631-434-3197
techsupport@hauppauge.com

Hauppauge Computer Works, GmbH
Krefelder Straße 669
41061 Mönchengladbach, Germany

Telephone: 02161-694880
Fax: 02161-6948815
Tech Support: 02161-6948840
info@hauppauge.de

Hauppauge Computer Works, Ltd
6-10 Bank Chambers
Borough High Street
London, U.K. SE1 9QQ

Telephone: 0207-378-1997
Fax: 0207-357-9171
Tech Support: 0207-378-0202
support@hauppauge.co.uk

Internet addresses:

Sales: sales@hauppauge.com
Web site: www.hauppauge.com

QI-PVRPCI-150250350-V2.2-ENG
December 28, 2005

Installing the WinTV-PVR-150/250/350

The **WinTV-PVR-150**, **WinTV-PVR-250** and **WinTV-PVR-350** are TV tuner boards with a built-in hardware MPEG encoder, designed for **Windows98SE**, **WindowsMe**, **Windows2000** and **WindowsXP**. This guide refers to the **WinTV-PVR-150/250/350** in descriptions which are common to both models.

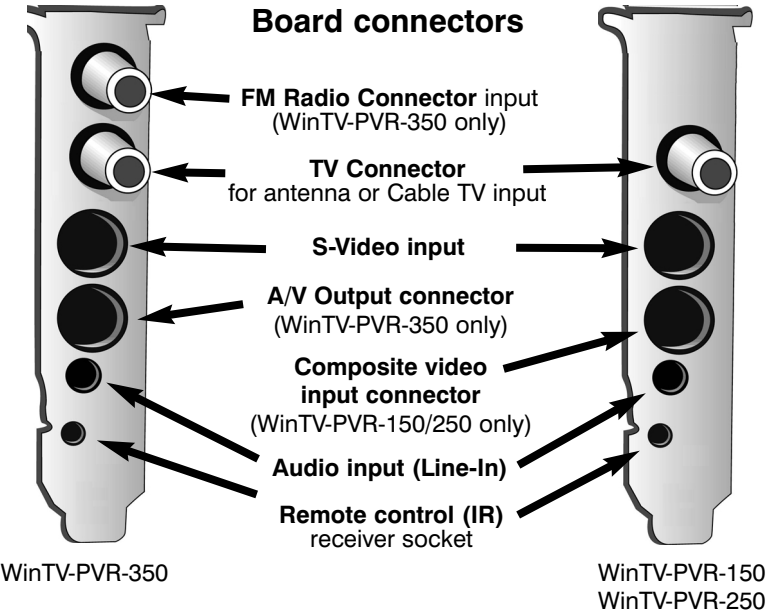
Installation overview

To install **WinTV-PVR-150/250/350**, you will follow these steps:

- ✓ Install the **WinTV-PVR-150/250/350** board in your PC and connect the TV cables.
- ✓ After booting Windows, install WinTV-PVR Windows device driver from the **WinTV-PVR-150/250/350 Installation CD-ROM**.
- ✓ After the Windows driver is installed, install the **WinTV applications** from the **WinTV-PVR-150/250/350 Installation CD-ROM**.

Step 1: Install the WinTV-PVR board and connect the cables

Turn the power off on your PC. Install the **WinTV-PVR** into a PCI slot. On some PC's, the **WinTV-PVR** needs to be plugged into the first or second PCI slot. Plug your TV antenna or cable TV cable into the **TV Connector**.



The S-Video/composite video input can be used to bring video from a VCR, camcorder, camera, DVD player or satellite TV receiver. On the **WinTV-PVR-350**, if your video device uses **composite video** instead of S-Video, use the supplied **Composite to S-Video adapter**. Plug your composite video connector (normally this is yellow) into one end of the **Composite to S-Video adapter** and the other end into the **S-Video input** on WinTV-PVR-350.

On the **WinTV-PVR-350**, the **A/V Output connector** is used to display live or recorded video on a TV set, VCR or camcorder (see **Video Output** on WinTV-PVR-350, below).

The **Remote control receiver** is plugged into the **Remote control receiver socket**. Use the Velcro dot (on the back of the Remote control receiver) to position the **Remote control receiver** where it will be able to receive infra-red commands from the **Remote control transmitter**. Add the supplied **batteries** to the **Remote control transmitter**.

Step 2: Installing the WinTV-PVR under Windows XP

After installing the **WinTV-PVR** in your PC and booting into Windows, the **Found New Hardware Wizard** will appear.

Click **No, not at this time**. Click **Next**.

Insert the **WinTV-PVR-150/250/350 Installation CD-ROM** in your PC's CD-ROM drive and make sure **install the software automatically (Recommended)** is checked.

Click **Next**.

If the **Hardware Installation** dialog box opens, click **Continue Anyway**.

The **WinTV-PVR** driver will be installed. This takes several seconds.

Click **Finish**.

This will complete the driver installation for Windows XP. Go to step 3.



Step 2a: Installing the WinTV-PVR driver for Windows 98SE, Me, and Windows2000

Turn the power on your PC.

When re-starting Windows for the first time after the **WinTV-PVR** 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**.

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

Once the **Hauppauge WinTV** video driver has been detected, Click **NEXT**. You will see a number of files being copied to your **hard disk drive**.

Click **Finish**.

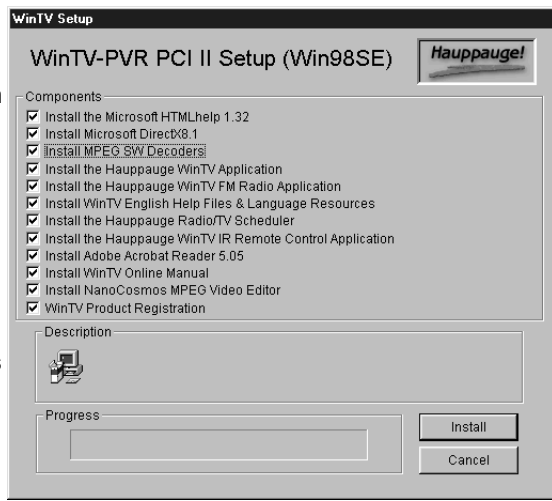


Step 3: WinTV-PVR-150/250/350 Software installation

After the **WinTV-PVR** driver has been installed, you need to run **WinTV Setup** to complete the installation. Run **SETUP** from the **WinTV-PVR** Installation CD-ROM.

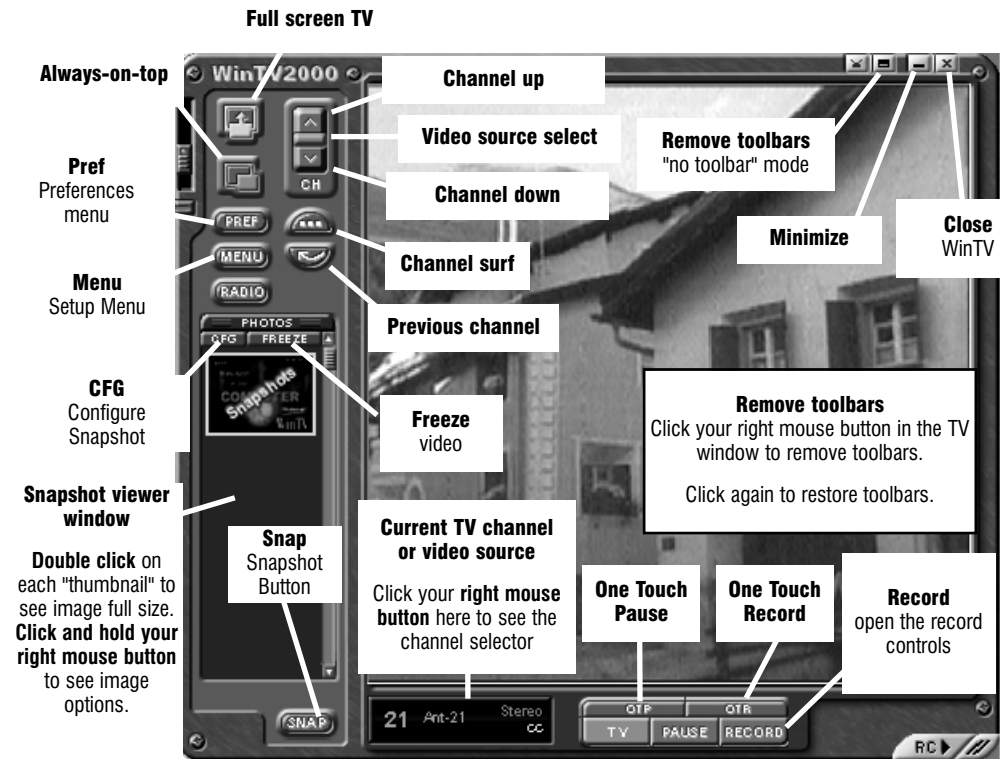
Click **Install** to start the application installation. The installation requires two reboots. The installation may require a file from your Windows CD-ROM, so keep it handy.

After the Setup program is complete, you will see the **WinTV2000** icon on your Windows desktop.



The WinTV2000 application

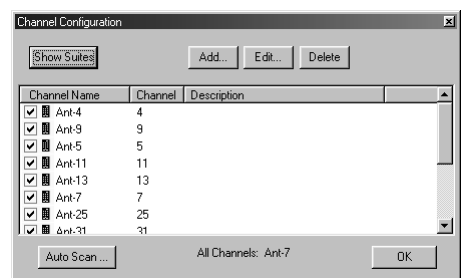
To run the WinTV2000 application for watching TV, recording videos and playing them back to your PC screen, double click the WinTV2000 icon.



Setting up the channels

After you have scanned for channels, you can add channel names and fine tune for better reception. To do this, click the **Menu** button on WinTV2000, then click **Suite Manager**. You can also **click and hold your right mouse button**, then click **SuiteManager**.

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



description or fine tune. Then click **OK**.

Selecting an External Video source (VCR, camcorder, etc.)

Click the **green Video source select** button to select **TV**, **Composite** and **S-Video** sources. The video sources will use the TV standard chosen when you scanned for your TV channels (NTSC or PAL).

Rescanning for channels

Click the **Menu** button and click on **Suite Manager** and then **Auto scan**. Make sure you select cable or antenna in **Broadcast / cable**. Choose the correct **Video format** for your region and then click **Scan**.

Displaying TV full screen

When you click the **Full screen TV** button, TV will appear full screen. When finished watching TV full screen, click your right mouse button in the TV window.

If you see video with a black box to the left and right of the TV image, click the **Pref button** then click **TV mode** tab. Check the box which says "Allow resolution change".

"Always-on-Top" mode:

With **Always on Top**, the WinTV window can always be visible on your Windows desktop. To turn on Always-on-Top, simply click the **Always-on-top** button. It will turn green. To turn off Always on Top,

click this button again.

A convenient way to use Always-on-Top is to make the TV window in the no-title mode small, and to make the TV window in the title mode larger. Then you can switch very quick from a small window to a larger one simply by clicking the right mouse button.

Menu button

Click the **Menu** button to open the **TV Setup** menu. Here is the main control for TV channels, and duplicate controls for other functions:

Suite Manager: configure the TV tuner (scanning, naming, fine tuning, etc.), setting up 'favorite channel lists' and set an external A/V source to a TV channel.

Configuration: duplicate configuration menus for color, audio, MPEG settings, etc.

View: for setting the TV window size

Pref button

Click the **Pref** button to open the **Preferences** menu. You will have tabs for:

View: these are the settings for the **On Screen Display** of the **TV channel** and **Audio Volume**, where you can enable **Close Captions**, plus controls for the **Toolbar mode (Title mode)**, **NoToolbar mode (No Title)** and **Full Screen (TV mode)**.

Movies: here is where you configure the **video** and **audio** settings. You can set the **movie record directory** (DVCR Record File Path), the **MPEG Quality settings**, and the **Audio settings**.

Snaph Shot: here is where you can set the size of your captured images, plus single or two field captures.

Audio: your audio settings are configured here.

Color: adjust the color of your TV picture here.

If you cannot hear audio

If you cannot hear audio when the **WinTV** application is running, check the following:

- Click on the **WinTV applications'** audio configuration button **AUD** and make sure the Audio Mixer input is set to Wave.
- Open the **Volume control menu** (double click on the small speaker icon in the lower right hand corner of your PC screen). Make sure Wave is not muted and the level is about half way up.
- If you do not see a **Wave** listed in the **Volume control menu**, click on **Options / Properties** in this menu and under **Show the following volume controls** put a check mark next to Wave. This will add Wave to the list of devices. Click **OK** and then you

should see Wave listed. Once again, make sure Wave is not muted and the volume is half way up.

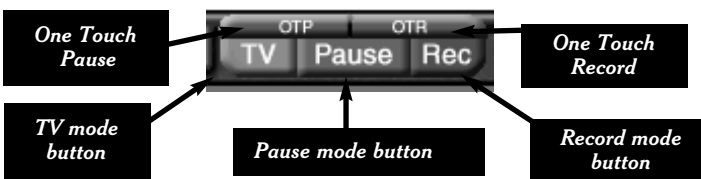
- If you do not hear audio when playing back a recorded video file (or do not hear audio when in the Pause mode), then open up the **Windows Volume Control Mixer** and make sure **Wave** is listed and not muted.

Watch, Pause and Record TV

There are three buttons to control the **Watching**, **Recording** and **Pausing** of TV. Clicking on the **Pause** button will cause the **Pause** menu to roll down from the WinTV2000 application, while clicking on the **Rec** button will cause the **Record** menu to roll down.

The **One Touch Pause (OTP)** button prepares the **WinTV-PVR** for pausing live video (see **Pause mode** below).

The **One Touch Record (OTR)** button will start a record session. If you click **OTR** more than once, a record timer will be set and the recording will be done for 15 minutes for each time the **OTR** button is clicked. For example, if you click the **OTR button 3 times**, the **WinTV-PVR** will record for **30 minutes**.



Quick instructions on recording and pausing your TV shows

If you want to record a TV show you are watching:

- Click the **Record** button to lower the record and play menu
- In the Record menu, click the **red record button** to start recording
- When you are finished recording, click the **stop button**
- Click the **Play button** to play the video you just recorded
- To play a video you recorded earlier, click the **File** button and then move your mouse and click once on the video you want to play. Click **Open** and then the **Play button**. For more instructions, see the section entitled **Record mode**.
- If you want to pause a TV show you are watching:

- Click the **Pause** button to lower the pause menu. After about 15 seconds, your screen will stop and the Time counter will start counting.

- To start the video from where you paused, click the **Play button**
- To pause the video again, click the **Pause button**
- To rewind the video to the beginning, click the **Skip to the beginning button**. If your video was paused, click the **Play button**.
- To rewind the video 10 seconds, click the **rewind 10 seconds button**. If your video was paused, click the **Play button**.

For more instructions, see the section entitled **Pause mode**.

Record Mode

Click on the **Record** button or the **OTR** button on the **WinTV-2000** application to open the Record and Playback control bar.

Time counter:

The time is specified in a **Hour:Minute:Second** format.

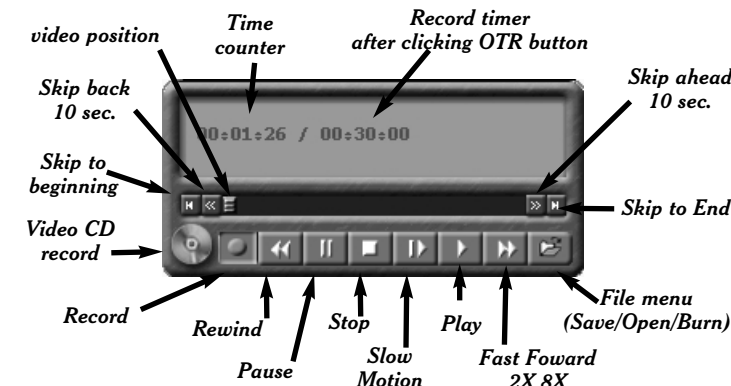
Record timer:

A timed record is started by clicking the **OTR** button. Each time you click **OTR**, the **Record Timer** is incremented by 15 minutes. At the end of the time specified by the Record timer, the record will stop. Also, clicking the **Stop button** will stop a timed record. The time is specified in a **Hour:Minute:Second** format.

Record Button:

Clicking the **Record** button will automatically generate a file name and start recording your audio/video program.

The quality of the video recording and the directory where the files are stored are set in the **MPEG Configuration Menu** (see the section entitled "Configuring the format for MPEG compression"). Click the **PREF** button on the **WinTV2000** application, then clicking



Capture / MPEG. In **Quality Levels**, the highest quality is **MPEG-2 12.0** MBit/sec, and the lowest quality is **VCD**.

While recording:

- **Live video** continues to play in the **WinTV** window
- The **Counter** will display the length of your recording
- If you had started recording with the **OTR** button, and had clicked it more than once, the **total time for the recording** will also be displayed

The recorded video file is saved in the **DVCR Recorded File Path** which can be configured from the **MPEG Configuration Menu**. Everytime you record a file, a new file is automatically created. The first file will be **_dvcr001.mpg**. The second file will be **_dvcr002.mpg** and so on.

Click the **Stop button** to stop your recording. The recorded audio/video file is then saved to disk using the automatically assigned file name. The Time counter is reset to 00:00:00 after the recording is saved.

VCD Record Button:

Clicking the **VCD Record** button will automatically generate a file name and start recording your program using the VCD record quality. All other characteristics are the same as in the Record mode. This button makes it easy to save VCD quality video, for burning later on to a Video CD.

Stop Button:

Clicking the **Stop** button will stop the video you are recording or playing back. Once the video is stopped, live TV will be displayed.

Play Button:

Clicking the **Play** button will playback from disk the last video file created. When playing a video, you can rewind, fast forward, replay 10 sec or skip forward 10 sec using the buttons on the control bar.

When playing video files, you can quickly skip to sections of your video by hitting the 0 to 9 buttons on the remote (or your keyboard). When you hit '1' you will skip to 10% of the length of the video. When you hit '2' you will skip to 20% of your video.

Pause Button:

Clicking the **Pause** button while Playing will pause your audio/video file. Clicking the **Pause** button again will continue the playing.

Rewind Button:

Clicking the **Rewind** button will play the video file in reverse at **1x speed**. Clicking the **Rewind** button again will continue the playing.

Fast Forward Button:

Clicking the **Fast Forward** button one time will fast forward your video at **2X speed**. Clicking the **Fast Forward** button two times will fast forward your video at **8X speed**. Clicking the button again will continue playing back at normal speed.

Note: with the WinTV-PVR-350, when VideoOut is turned on the Fast Forward is limited to 2X speed.

Slow Motion Button:

Clicking the **Slow Motion** button will play video at 1/2 speed. Click the **Slow Motion** button again to play your video at normal speed.

File Button:

Clicking the **File** button opens the File menu. The last file recorded is listed in the **File name** box. In the File menu you can:

- **Rename your recorded video file.** To rename a video file, find the file you would like to rename (remember, the automatically generated file names start with **_dvcr**), **highlight** it with your mouse, and **click and hold the right mouse button**. Go down to **Rename** and then you can type in a new name. Remember: you must keep the MPG extension on the file.
- **Play a video file previously recorded:** find the file you would like to play, **highlight** it with your mouse (one click of the mouse button) and click **Open**. Then click the **Play button**.
- **Delete recorded video files** which you no longer want (and which consume hard disk space). Click your **right mouse button** on the video file once, go down the menu and click on **Delete**.

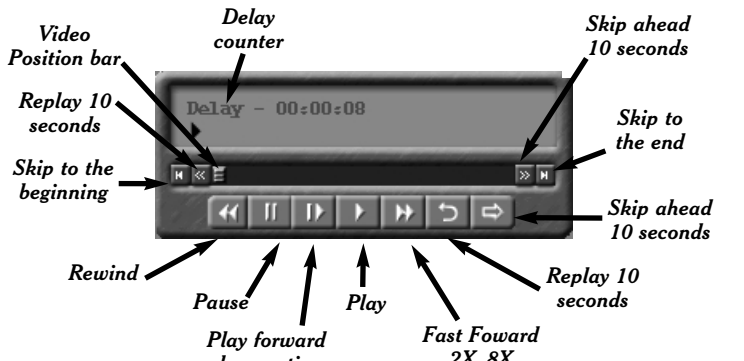
Pause mode

Clicking the **Pause** button or **OTP** button on the **WinTV-2000** application starts the **Pause mode**. The **Pause Menu** will drop down.

Note: It takes about 10 seconds to create a pause buffer. While the buffer is initializing, do not click any buttons on the WinTV application.

Pause buffer:

The **Pause buffer** is space on your hard disk where video is stored during the Pause mode. The maximum amount of time which your



TV program can be delayed is dependent upon how much storage space you have set for the Pause buffer and which type of MPEG format you have chosen. Both of these can be set in the MPEG settings menu (see the section entitled "Configuring the format for MPEG compression").

To catch up to the "live" audio/video program, you can either exit the Pause mode by clicking the **TV mode** button, you can click the **Skip button**, which skips ahead 10 seconds per click, or you can grab the Video Position indicator and move it to the right until it is at the end of the Video Position bar.

The **Limit Pause Mode buffer size** sets the maximum size of the Pause buffer. Here are some suggested sizes:

- If you are using **MPEG1 VCD** format, 650 MBytes per hour are used. So if you want a 1/2 hour buffer, then **set the Limit Pause Mode Buffer Size to 325 MBytes**.
- If you are using **MPEG-2 4.0MB/sec**, about 2 Gigabytes per hour is used for the Pause buffer. So for a 30 minute buffer, then **set the Limit Pause Mode Buffer Size to 1000 MBytes**.

Delay counter:

The **Delay counter** displays how much time you are behind the live video. For example, if the delay counter says 00:01:23, then the video window is showing video 1 minute and 23 seconds behind live video.

Pause button:

Clicking the **Pause** button or **OTP** button causes **WinTV** to start recording into WinTV's **Replay Buffer**. It takes about 10 seconds for the Replay Buffer to be initialized and for Pause to become effective.

Unclicking the **Pause** button will cause the audio/video program to start playing from the point where the button was originally pushed. Most **WinTV** functions are active while in the **Pause** or **Pause Live** mode. For example, you can change volume, resize the TV window, go into "no-title mode", etc.

While in Pause mode, the **Video Position bar** shows the amount of the **Replay Buffer** which is filled with video. For example, if the Video Position indicator shows halfway, it means that half of the Replay Buffer is filled. If you find you cannot Pause as many minutes as you would like, increase the size of the **Replay Buffer**.

While in Pause mode, the A/V stream is always saved in the Replay Buffer. To stop saving the A/V stream in the Replay Buffer, you must exit the Pause mode by clicking the **TV mode button**.

Replay button:

While in the Pause mode, hitting the Replay button acts like the **Instant Replay** you see on TV broadcast sporting events: the audio/video goes back in time and you repeat what you have previously seen.

Each click of the **Replay button** causes audio/video to go back 10 seconds. For example, if you want to repeat the audio/video you saw 10 seconds ago, you would **click the Replay button once**. If you want to see the video you saw one minute ago, you would need to **click the Replay button six times**.

For extended replay times, you might find it more convenient to grab the **Video Position indicator control bar** and move it to the left. Once you let the control bar go, audio/video starts to play (it might take a few seconds for the **WinTV2000** application to start playing). You might have to move the Video Position indicator to the left and right to find the desired spot to start replaying audio/video.

While **Replaying**, your audio/video program continues to be recorded in the Replay Buffer. Therefore, if you have clicked the Replay button 3 times (**so that you are replaying the audio/video seen 30 seconds ago**), the video you see in the WinTV window will be 30 seconds behind the **"live"** audio/video program.

Skip Ahead Button

Clicking the **Skip** button will skip the video ahead 10 seconds.

Rewind Button:

Clicking the **Rewind** button while playing video will rewind the recorded video. Clicking the **Rewind** button again will continue the playing.

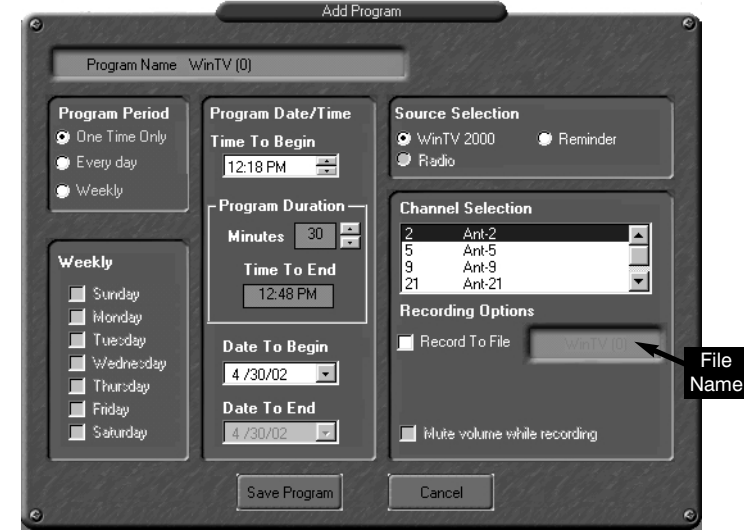
Fast Foward Button:

Clicking the **Fast Foward** button one time will fast foward your video at **2X speed**. Clicking the **Fast Foward** button two times will fast foward your video at **8X speed**.



second (if you feel this is necessary) to set the minute to start the program. **Note:** It takes about 10 seconds to launch the **WinTV** and set up for recording, so set the **Time to Begin Program** to 10 seconds before the time your TV show actually starts.

- Time to End Program:** set to the time to end this event. **Note:** you need to leave at least 30 seconds between scheduled programs to give the recorder time to set up its disk buffers.
- Program Period:** one time, daily, weekly
- Date to Begin Program:** today's date is the default. Change this if you want to schedule on another date.
- Source selection:** leave set at **WinTV2000** to bring up the **WinTV** at the requested time and on the requested channel.
- Channel selection:** chose one of your scanned channels.
- Recording options:** click on **Record to File** to record your show. Leave this button unchecked to watch TV at the requested time. You can also **name your file** to record, in the dialog box below.



How to use the WinTV Editor:

Click on the **Add source** button or click on **File / Add** source to bring the file you want to edit into the MPEG editor. The **WinTV-PVR** uses the **c:\My Documents\My Videos** directory as the default directory to save video files created by the **WinTV-PVR**. When the selected file is opened, it will start playing back in the video window. Click the **Stop** button to stop playback.

Grab the **video position slider**, and move it to the beginning of the video segment you want to keep. The video frame will be shown in the video window. You can also use the controls under the video window (play, pause, stop and the frame control buttons).

When you have correctly positioned to the video frame you want, click the **In button**. This will define the starting point of the video interval.

Grab the **video position slider** and move it to the end position of the clip you want to keep, then click the **Out button**.

Click **Add Interval** to add the defined clip to the cut list. Repeat until you have put all the desired video clips in the "cut list".

When you have finished with your cut list, click the **Generate output** button. All intervals in the cut list will appear in the final video. The Generate Output step normally takes awhile.

Your MPEG video is named **nanoeDIT.mpg**. Be sure to rename this before cutting another video, otherwise the file will be overwritten! Before you click **Generate Output**, click **File / SelectOutputFile** to change the file name of your recorded file.

To cut away an advertisement, click the **In button** at the beginning of the video sequence, then click the **Out button** just before the advertisement starts. Click **Add Interval**. Then click the **In button** at the end of the advertisement, and click the **Out button** at the end of the video sequence you want to keep. Then click **Add Interval**.

To cut away advertisements from a movie, you must define all pieces you want to keep (everything which belongs to the movie) and add them to the cut list.

Making DVDs from your WinTV-PVR recordings

DVD players which are compatible with CD's and MP3's can also read DVD's burned using MPEG video files created with the WinTV-PVR.

If you plan to burn a **DVD with MovieFactory** or any other DVD authoring software package, you should use either the "DVD Standard Play", the "DVD Long Play" or "DVD Extra Long Play".

Slow Motion Button:

Clicking the **Slow Motion** button while playing video will play in Slow Motion. Clicking the **Slow Motion** button again, will continue playing normally.

MPEG compression formats & record directories

To set the directory where your video recordings will be stored, click the **PREF button** (Preferences menu) on **WinTV2000**, then **Capture** and then on the **MPEG tab**. Set the **DVCR File Path** to directory where you would like to store your video recordings.

The **WinTV-PVR** supports several formats for MPEG video compression, called **Quality Levels**. The differences in these formats are:

- The higher the datarate, the better the video quality you see from live TV and your recordings. The higher the datarate, the more disk space which will be required.
- CPU horsepower required during playback and pause mode.
- The compatibility when creating Video CD's or S-VCD's.

To configure the **MPEG Quality Level**, on **WinTV2000** click the **PREF button** (Preferences menu), then **Capture** and then the **MPEG tab**. Here are the video formats and the amount of disk space per hour used:

	MPEG1	VCD	.65 Gigabytes/hour
	MPEG2	2.0MBits/sec (Full D1)	.9 Gigabytes/hour
	MPEG2	2.0MBits/sec (Half D1)	.9 Gigabytes/hour
	MPEG2	12.0 MBits/sec (Full D1)	5.4 Gigabytes/hour
	MPEG2	12.0 MBits/sec (CBR)	5.4 Gigabytes/hour
	DVD Standard Play	8.0MBits/sec	3.1 Gigabytes/hour
	DVD Long Play	6.2MBits/sec	2.4 Gigabytes/hour
	DVD Extra Long Play	2.5 MBits/sec	1.2 Gigabytes/hour
	SVCD Standard Play	2.5MBits/sec	.8 Gigabytes/hour



Once these are set, click **Set Program**. You can add more **Events**, clicking **Set Program** after each event is set.

When you are finished click **Close**. The **WinTV** program does not have to be running for the **Scheduler** to work. If **WinTV** is not running, it takes about 10 seconds to start **WinTV-PVR** and to start the recording of TV.

WinTV-PVR remote control

The WinTV-PVR's remote control software is installed automatically during the installation of the WinTV applications. You will see the **WinTV Remote icon** in the Device Tray. The installation will add a shortcut to IR.EXE to the Startup group, so that IR.EXE is loaded every time after Windows has booted.

If you need to restart the remote control, run **IR32.EXE** from the **C:\Program Files\WinTV** directory.

To install the IR Remote receiver:

- Turn off your computer. Plug the **sub-mini jack** at the end of the **IR Receiver cable** into the **Remote control (IR) receiver socket** of the **WinTV-PVR**.
- Place the **IR Receiver** on your desktop so that the infrared light from the **IR Remote transmitter** can reach the **IR Receiver**.
- Turn on your computer.
- If you have previously installed the **WinTV applications**, the IR software should automatically run, and you will see the **WinTV Remote icon** in the **Device Tray**.

Some remote control buttons

TV button: when WinTV is closed, this button starts the WinTV application. Once WinTV is running, this button makes TV go full screen, or back to "TV-in-a-window".

Red record button: starts recording using the parameters set in the **Pref menu**.

Pause button: if watching live TV, will open the record/play menu box and pause the video. When recording, this button will pause the video but WinTV will continue to record. If playing back video, this button will pause the video playback. Click the Pause button to start playing again.

Stop button (square icon): stops the recording or playback. If in Pause mode, will exit pause.

Play button: plays the last video recorded.

Back/Exit button: will close the record, play or pause menus.

0 - 9 buttons: When in "live" TV mode, is used to directly enter channel numbers. When playing back a recording, the "1" button will skip to 10%, the "2" button 20%, etc. of the length of the recording.



These formats will allow you to make DVD's with the following recording lengths:

DVD Standard Play: 1 hour 30 minutes on DVD+R/RW disks

DVD Long Play: 1hour 50 minutes on DVD+R/RW disks

DVD Extra Long Play: 4 hours on DVD+R/RW disks

Ulead DVD MovieFactory

Start project: Used to author and burn DVD's, SVCD's and VCD's. Create chapter menus, mix videos, JPEGs and music.

Edit disk: Edit videos or menus from DVD+RW's.

Direct to disk: not currently used.

Copy disk: Burn copies of existing disk images to CD/DVD.

Tips on System Optimization for Windows 98SE:

These are tips that will help you improve capture and playback performance of video files on you PC.

- Do not use DoubleSpace or any other disk compression scheme! This severely slows down your hard disk.
- Make sure DMA is checked for your Hard disk drives in **Device Manager**. Right click your mouse on the **My Computer** icon on your desktop, and click on **Properties**. Click on the **Device Manager** tab and double click on **Disk Drives**. Highlight **GENERIC IDE DISK TYPE** and click on **Properties**. Click on **Settings**. Make sure **DMA** is selected.
- Defragment your Hard Disk. To Defragment your hard disk, in Windows click on **Start / Programs / Accessories / System Tools** and click on **Disk Defragmenter**.
- You can use 7200 RPM disk drives. Also, there are several hard disks on the market which are designed for higher performance video captures. These drives use 1:1 interleaving and track caching to eliminate gaps caused by a hard disk drive seeking to the next track. They are available with both IDE and SCSI interfaces.

Note: CBR is constant bit rate, VBR is variable bit rate.

Which record format should you use?

If you would like to burn a DVD, then chose either **DVD Standard Play**, **DVD Long Play** or **DVD Extra Long Play**. DVD formats record at 720x480 (720x576 with PAL video sources) using 48.0 kHz stereo audio. If you want to watch the recorded video on your PC, for the best video quality chose **MPEG2 12.0MB/sec** or **DVD Standard Play**. If you do not have much disk apace, try the **MPEG-2 2.0MB/sec**. SVCD is a nice compromise between video quality and hard disk space. Video is recorded at 480x480 (480x576 for PAL video) at a datarate up to 2.5Mbps/sec.

For creating Video CD's for playback on your home DVD player, chose the **MPEG1 VCD** format.

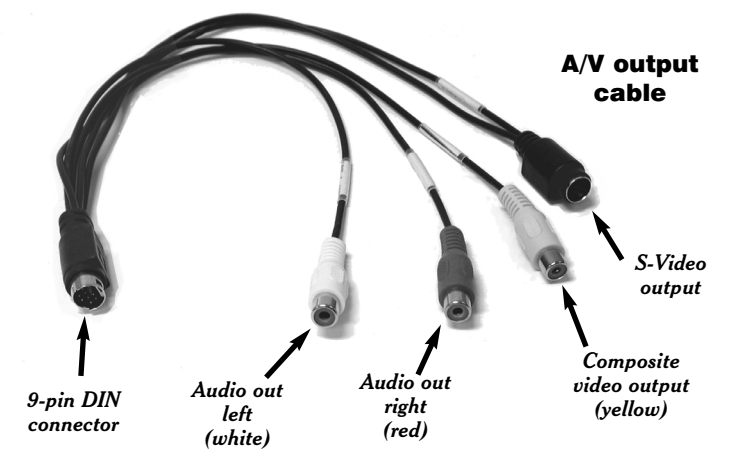
Once chosen, the Quality Level format is set for both the Pause and Record modes. The format cannot be changed while Recording or while in the Pause mode.

Video output (WinTV-PVR-350)

The **WinTV-PVR-350** can output your "live" and recorded video to an external video monitor or video recorder. With the Video Output feature of the **WinTV-PVR-350**, you can:

- Watch your TV shows on an external TV set, pausing or recording just as you could when watching TV on your VGA monitor.
- You can record a TV show, and then play it back to your TV set.
- Record your home videos, edit them with WinTV Editor, and then watch them on your home TV set.

Connecting the A/V cable to a TV set:



Skip ahead button: holding the skip ahead button advances the video about 5 minutes per 10 seconds the button is depressed.

Skip back button: pressing and holding the Skip back button makes the video go back about 5 minutes for every 10 seconds the button is depressed.

Go button: brings up the WinTV task list. Allows you to start WinTV2000, WinTV32 or WinTV-radio.

Menu button: brings up the Windows Task list. Use the left and right arrows to change to other Windows tasks.

Power button (green): if WinTV is running in "Record" mode, this button will put WinTV into the "TV" mode" and close the record/playback menu. If WinTV is in "TV mode", this button will close the WinTV application.

Red button at bottom: closes WinTV Radio and opens WinTV2000.

Green button at bottom: closes WinTV2000 and opens WinTV Radio (on models with radio).

Yellow button at bottom: no current function.

Blue button at bottom: creates snapshot in live TV, pause, record or playback modes.

Checking the function of WinTV's IR Remote

WinTV's Remote application, **IR.EXE**, is loaded every time Windows is booted. You will see a **Remote icon** in the device tray. To check the remote control operation, point the **Remote transmitter** at the **Remote control receiver**. When you click the **TV button** on the Remote transmitter, after 3-4 seconds the **Remote icon** should flash, indicating that the Remote application is running. After the Remote icon flashes, the WinTV application will be run.



Troubleshooting

Installation tips and software updates can be found at : http://www.hauppauge.com/pages/support_pvr250-350.html http://www.hauppauge.com/pages/support_pvr150.html

Our FAQ can be found at: http://www.hauppauge.com/pages/support_faq_pvr250-350.html

Error: "No common media type between these pins"

The WinTV-PVR uses your PC's processor to display the TV image. If the processor is too slow, or if there is something in the system which is taking system resources, you might get this message.

Check the VGA acceleration in Device manager. make sure it is set to "Full". Also check your VGA resolution. You might need to bring the number of Colors down one notch.

Error: "Error code 10" during installation

This is caused by a failure to load the WinTV-PVR drivers. Run **HCWClear** from the **WinTV-PVR Installation CD-ROM**, then reboot and reinstall the WinTV-PVR. If this still gives you an error message, move the WinTV-PVR to another PCI slot and reinstall the drivers.

Conflicts with Intervideo WinDVD

The WinTV-PVR uses a version of WinDVD to display video in the WinTV window. Sometimes we have found that a previously installed version of WinDVD will conflict with the version of WinDVD which is installed with the WinTV-PVR. Symptoms include: black screen but you can hear audio, failure to scan for channels, you can't change MPEG formats without errors, bad audio/video sync, and others.

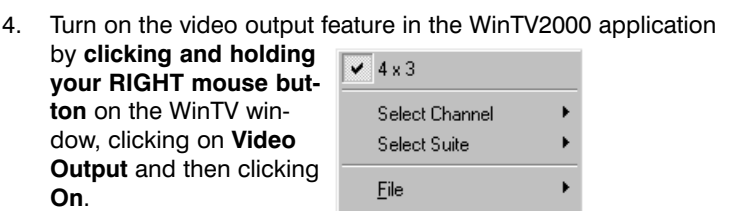
Uninstalling WinDVD will fix this problem. You uninstall WinDVD through the "Add/Remove Programs" in Control Panel. You will still be able to play DVD movies in MediaPlayer, since the WinTV-PVR installation provides a MediaPlayer compatible DVD player.

Problem: Poor Reception or Not detecting all channels:

Poor TV reception is generally the result of an Weak TV signal. When using a "roof-top" antenna, an aerial booster may be required if there is poor TV reception. If you find that some or all of the channels have not been detected, you can insert channels manually. Also, in some areas using cable TV, a format called **Cable HRC** is used. If so, try rescanning but use **CABLE (HRC)** instead of cable in the Broadcast/Cable box.

Problem: Live TV program and video playback has a "Jerky" effect and/or lip synchronization during playback.

- Plug the **9-pin DIN connector** on the **A/V output cable** into the **A/V output connector** on the WinTV-PVR-350. This connector is "keyed" so you cannot plug it in backwards.
- The A/V cable has an **S-Video output connector (black)** and a **Composite output connector (yellow)**. Some TV sets have S-Video inputs, and others use Composite connectors. Chose the correct one for your TV set, and connect a video cable (not supplied) between your TV set and the A/V output cable.
- The A/V cable has **Audio out left (white)** and a **Audio out right (red)** jack. Connect these to the audio input jacks on your TV set (not supplied).
- Turn on the video output feature in the WinTV2000 application by **clicking and holding your RIGHT mouse button** on the WinTV window, clicking on **Video Output** and then clicking **On**.



Note: some TV sets do not have S-Video or Composite jacks. To connect to a TV set, it MUST have S-Video or Composite video inputs, plus audio input jacks.

Note: with the WinTV-PVR-350, when VideoOut is turned on the Fast Forward is limited to 2X speed.

WinTV-Scheduler

WinTV-Scheduler allows you to schedule the recording of TV shows. **WinTV-Scheduler**, once it is set, can be closed, and the **WinTV** application will "wake up" at the desired time and tuned to the desired channel.

After installation, **WinTV-Scheduler** can be found on your desktop. **WinTV-Scheduler** works by using the **Windows Task Scheduler** to launch **WinTV** at the chosen time. **WinTV-Scheduler** sets up a command line in Task Scheduler to run **WinTV2000**, specifying a TV channel and a length of time to record.

To set up an event for timed watching or recording, run **WinTV-Scheduler** and click on the **Add Program**.

The items that need to be set for each event are:

- Time to Begin Program:** set to the desired start time. The default time is about 3 minutes from the current time. Click on the hour to set the hour, the minute to set the minute and the

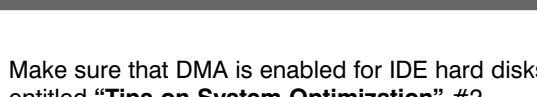
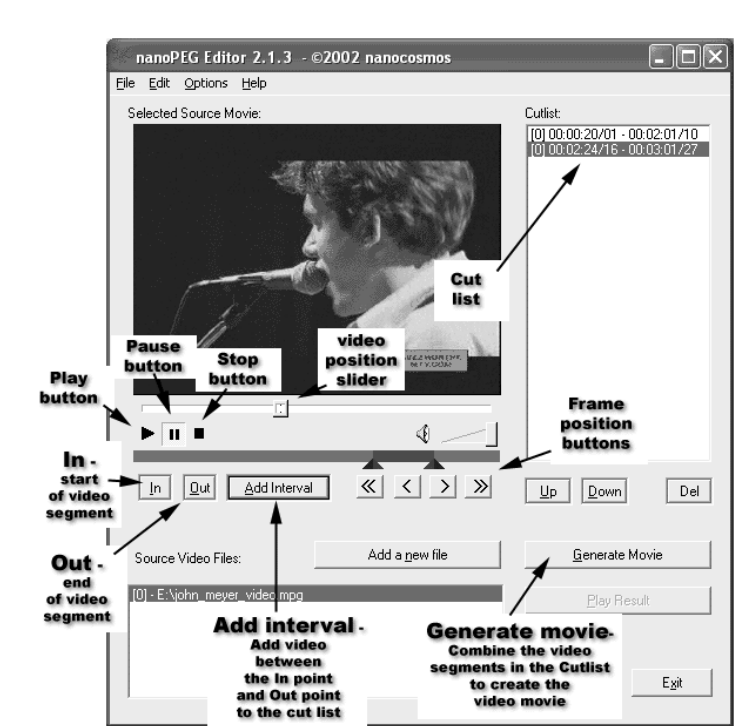


WinTV MPEG Editor

The MPEG Editor is an MPEG1/MPEG-2 cut and join editor. You can cut out segments from videos, or combine videos (of the same MPEG format) together. The MPEG editor makes its cuts on what are called "MPEG I-frames". These types of cuts do not require a re-encode, and therefore preserves the quality of the original video.

You will find the WinTV MPEG editor by clicking **Start / All Programs / MPEG Tools for Hauppauge / nanoPEG Editor**.

- This version of the MPEG editor has these features:
 - Edit (cut) MPEG1 or MPEG2 files.
 - Join MPEG files of the same resolution and bit rate
 - Remultiplex Video CD compatible files so they can be "burnt" into VCD's
 - Remultiplex S Video CD compatible files so they can be "burnt" into SVCD's
 - Split large MPEG videos into pieces, so that these can be burned onto CD-ROM or DVD media
 - Has a "play" option so you can play the file you have just edited without having to close the editor



Make sure that DMA is enabled for IDE hard disks. See the section entitled "**Tips on System Optimization**" #2.

Problem: WinTV-2000 has display problems on the screen, e.g. blurred image.

In the WinTV program group (**Start / Programs / Hauppauge WinTV**) there is a utility called "Primary". Set it to "Allow Overlay". If it is on "Allow Overlay", try it on "Force Primary". Some VGA cards need to upgrade from the latest drivers in order for it to support Overlay mode. Try to upgrade your VGA drivers from the manufacturer web site.

How do I configure the Audio for the WinTV-PVR?

Your PC's sound card is used to amplify the audio during "live" TV, record and playback. The WinTV2000 application's **Volume Adjust** sidebar adjusts the volume by raising and lowering the WaveOut volume control in the sound card.

FCC Statement Radio Interference Statement:

The WinTV-PVR has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna. Increase the separation between the equipment and receiver. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance to the FCC Rules could void the user's authority to operate the equipment.

CE Statement: This equipment has been tested and complies with EN 55013, EN 55020 and IEC 801-3 part 3 standards.