

## WinTV-HVR-1950

### Quick Installation Guide for Windows XP and Windows Vista (all versions)

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#### 1. Included with the WinTV-HVR-1950

- **WinTV-HVR-1950 device** with ATSC/NTSC/clear QAM receiver, 125 channel cable ready TV tuner, FM radio receiver and MPEG-2 hardware audio/video compressor for recording analog cable TV to disk
- **Remote control transmitter** and batteries
- **Wall mounted power supply** (6 volt)
- **1 meter USB cable**
- **FM radio antenna**
- **WinTV-HVR-1950 Installation CD-ROM**
- **WinTV-HVR-1950 Quick Installation Guide** (this guide)



#### 2. What is ATSC and QAM digital TV, and how does the WinTV-HVR-1950 work?

**ATSC digital TV is over-the-air digital TV for North America.** ATSC digital TV typically requires an antenna for reception, and is currently broadcast in 200 cities, with over 1500 TV stations. **Note:** ATSC digital TV is NOT digital cable TV or digital satellite TV. The WinTV-HVR-1950 can receive clear QAM digital cable TV. It cannot receive digital satellite TV.

ATSC digital TV is transmitted in several resolutions, from "standard definition" which is similar to cable TV, up to high definition which has about 16 times the resolution of normal cable TV. In any resolution, ATSC digital TV gives sharper pictures than analog cable TV and near CD quality sound.

**Clear QAM TV channels are digital cable TV channels** which are broadcast on cable TV "in the clear". These digital cable TV channels are broadcast in various resolutions, from standard definition up to high definition.

WinTV-HVR-1950 has a built-in tuner for analog cable TV, digital ATSC and digital clear QAM TV. To receive ATSC, you will need an antenna. To receive digital clear QAM or analog cable TV, you will need a cable TV connection.

It uses your PC or laptop's CPU for displaying both analog and digital TV programs on your PC screen. The decoding of high definition

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ATSC is very processor intensive, and the smoothness of high definition TV programs depends upon how fast your PC or laptop system is. Other PC activities that consume CPU resources might affect the display of ATSC digital TV. Slow video, jerky video and momentary pausing of video are all results of a CPU which is temporarily being used by other activities.

The portable antennas are designed primarily for ATSC digital TV reception, and will work within 10 miles of an ATSC transmitter (reception might be limited by obstructions such as steel buildings).

For the best ATSC digital TV reception, a roof top 'High gain' antenna is recommended. In the U.S., a good ATSC digital antenna selector can be found at [TitanTV.com](http://TitanTV.com) under **Resources**.

#### 3. Installing the WinTV-HVR-1950

The WinTV-HVR-1950 is a USB device designed for Microsoft® WindowsXP and Windows Vista (all versions). It can be used with the Hauppauge WinTV v6 application, with Media Center and other TV tuner applications.

##### Connect the WinTV-HVR-1950 cables

Plug your **TV antenna** or **cable TV cable** into the WinTV-HVR-1950's **TV Connector**. Plug the supplied Radio aerial into the FM radio connector. Note: this may not be necessary if your TV aerial or cable network supplies FM.

**Plug one end (the square end) of the supplied USB cable** into the WinTV-HVR-1950's **USB Cable connector**. The WinTV-HVR-1950 is compatible with USB 2.0 (high speed USB) only.

**Plug the other end of the USB cable** into a USB port on your computer.

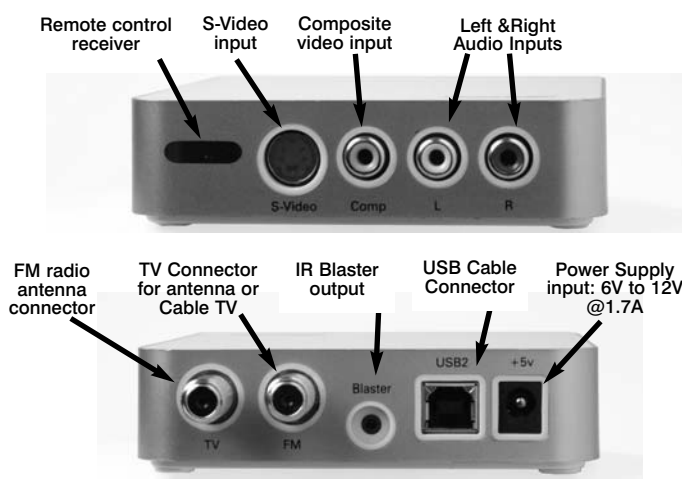
The **S-Video** and **Composite video inputs** and the L&R audio inputs can be used to bring audio/video from a VCR, DVD player or satellite TV receiver.

**Information on the installation of the IR Blaster Cable** can be found in the **IR Remote Blaster Quick Installation Guide**.

##### Boot your PC.

##### Plug the power supply into WinTV-HVR-1950

Plug the supplied Power Supply into the **Power Supply input** on WinTV-HVR-1950. The WinTV-HVR-1950 can accept 6V to 12V inputs.



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#### 4. Installing the WinTV-HVR-1950 driver

**Note:** the latest WinTV-HVR-1950 software can be found at [www.hauppauge.com/site/support/support\\_hvr1950.html](http://www.hauppauge.com/site/support/support_hvr1950.html)

**Note:** You may need to disable your antivirus programs during the installation only.

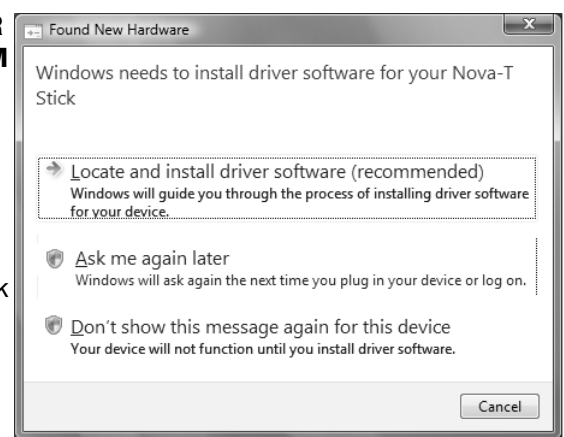
**Note:** DO NOT PLUG THE POWER INTO WINTV-HVR-1950 UNTIL YOUR PC HAS COMPLETELY BOOTED

#### Installing the WinTV-HVR-1950 Windows Vista driver

After plugging in the WinTV-HVR-1950 to your PC, the **Found New Hardware** window will appear.

Insert the **WinTV-HVR-1950 Installation CD-ROM** in your PC's CD-ROM drive.

Click **Locate and install driver software (recommended)**. Then click **Don't search online**. Click **Next**. When the driver is installed, click **Close**.



#### Installing the WinTV-HVR-1950 Windows XP driver

When your PC is booted, the **Found New Hardware Wizard** will appear. Insert the Hauppauge Installation CD into your CD-ROM drive. Select **No, not at this time**. Click **Next**. Select **Install software automatically**. Click **Next**.

Once the driver component is installed, click **Finish**.

#### 5. WinTV Software Installation

**Windows XP:** Click **Start / Run** then type your CD-ROM drive letter (for example: **D:\**) and then **Setup.exe**

**Vista:** Click the **Start button**, then click **Computer**, then locate your CD-ROM drive. You should see the contents of the WinTV Installation CD. Double click on **Setup**.

Choose a language, and click **Next**. Click **Install**.

The main applications installed are the WinTV application for TV watching and recording, and the WinTV Scheduler for scheduling your TV recordings.



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#### 6. Running WinTV® for the first time

To start the WinTV application, **double click on the WinTV icon** on your desk top. When you run WinTV for the first time, a message says **Would you like to scan for channels now?** Click **YES**.

To scan for cable TV channels, both analog and clear QAM digital, in the **Broadcast/Cable box** chose **Cable**.

To scan for ATSC digital channels, in the **Broadcast/Cable box** chose **Antenna**.

Click the **Scan** button and WinTV will automatically scan for TV channels. The scanning process takes about 10 minutes.

The scanning process for ATSC will scan from channels 2 to 68. The ATSC digital channels that are found will appear in the channel listing box. The **Name** is the name as defined by the broadcaster. The **Channel number** is created by the WinTV application. For ATSC digital channels, since each primary channel might have several subchannels, the channel number is calculated so that channel 22.2 would be listed as 1222. Channel 7.2 would be listed as 1072. Type 1072 on your keyboard for channel 7.2

**Note:** if you have attached an antenna and do not receive any ATSC digital TV channels, either use a stronger antenna (a roof top antenna is recommended for best reception) or reposition your portable antenna. Then rescan for ATSC channels (see below for instructions on rescanning and the **Troubleshooting** section for information on choosing an ATSC antenna).

**Note:** If you experience problems when watching ATSC digital TV channels, see the **Troubleshooting** section.

##### Rescanning TV channels

If you want to rescan for TV channels, click **Menu / Suite Manager**.

To scan analog cable TV channels, under **Sources**, highlight **Analog source** and click **Auto scan**.

To scan for digital ATSC channels, under **Input Sources**, highlight **ATSC source** and click **Auto scan**.

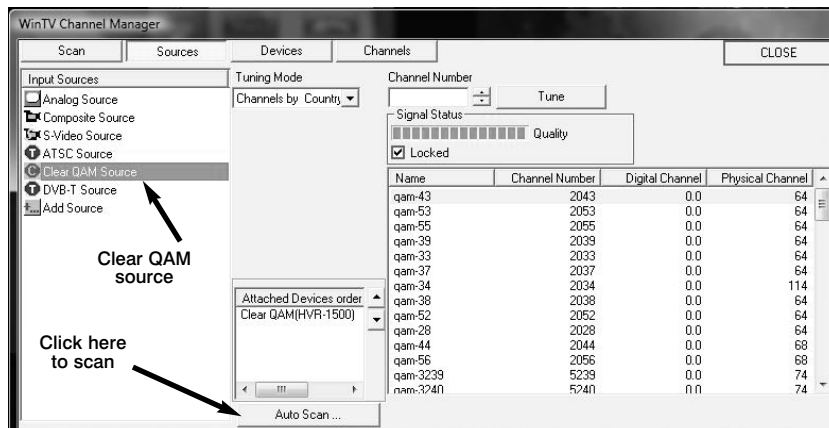
To scan for digital QAM channels, under **Input Sources**, highlight **Clear QAM Source** and click **Auto scan**.

During the scan for ATSC and QAM digital TV channels, the **Signal Status** will show a quality level and the **locked box** will be checked if a channel is detected.

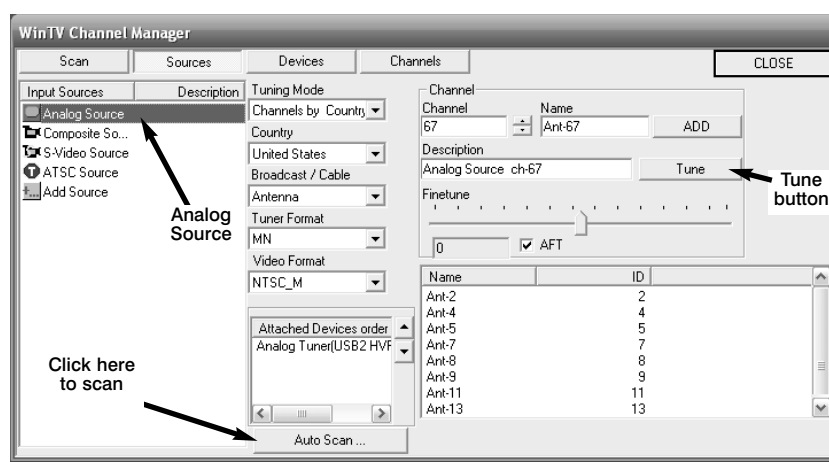
##### Other changes to channel listings

If you want to add names or fine tune an analog channel, click **Menu / Suite Manager / Sources**. Choose **Analog Source**. You will see a list of your analog channels. Click on the

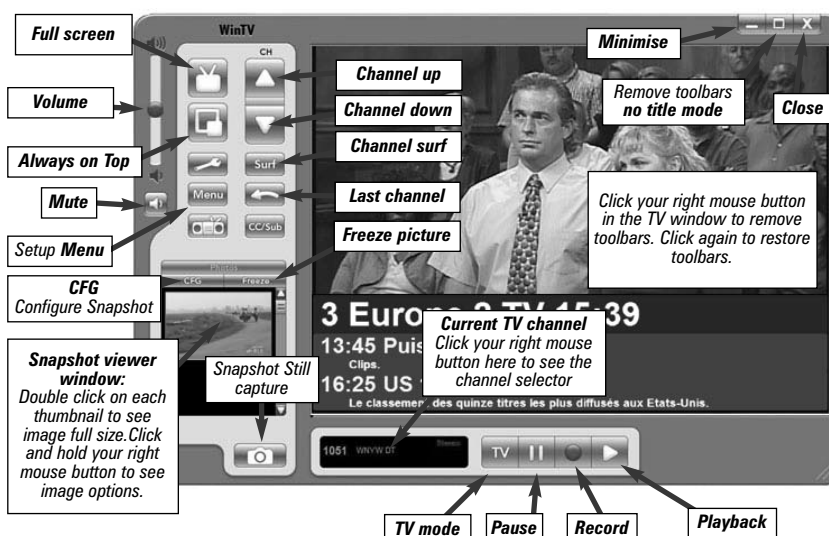
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**desired channel.** Click the **Tune** button to change channel. You can change the **Name** to the name of the station. To fine tune an analog channel, unclick **AFT** and then use the **Finetune slide bar**. When finished, click **Close**.



#### Using the WinTV v6 application



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#### Changing channels

You can change channels by clicking the **Channel Up** or **Channel Down** buttons on the WinTV application. You can also type a channel number (for example: 27 or 1021) and WinTV will tune to that channel. If the entered channel does not exist, you will see a black window. You can also **right click** in the **Current TV channel box**, where you will see a list of channels.

#### Changing the TV window size

You can change the size of the WinTV window by grabbing any corner and dragging the video window to the desired size.

#### Displaying TV full screen

When you click the **Full screen TV** button, TV will appear full screen on your PC monitor. When finished watching TV full screen, **right click your mouse button**.

If you see video with a black box around it, 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**, WinTV will always be visible on your Windows desktop on top of any applications. To turn on, click the **Always on top button**. It will turn green. To turn off, 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 quickly from a small window to a larger one by clicking the right mouse button.

#### To hide the WinTV toolbar (No-title mode)

Click your right mouse button in the WinTV's video window to hide the WinTV toolbar (no-title mode). To restore the toolbars (the title mode), once again click your right mouse button in the video window. You can set the size and position of the window differently in each mode.

#### Pref button

Click the **Pref** button to open the Preferences menu:

**View:** These are the settings for the On Screen Display of the TV channel and Audio Volume 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 setting for SoftPVR™. You can set the movie record directory (DVCR Record File Path), the MPEG Quality settings, and the Audio settings.

**Snapshot:** Set the size of your captured image, and settings for capturing motion or still images. Note: VMR must be the graphics setting to enable snapshot.

**Audio:** Your audio settings are configured here.

**Color:** Adjust the color of your TV picture here.

#### Menu button

Click the **Menu** button to open the TV setup menu. Here is the

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main control bar for TV channels, and duplicate controls for other functions:

**Suite Manager:** Configure the TV tuner (scanning, naming, channel preset, etc) setting up 'favorite channel lists')

**Configuration:** Duplicate configuration menus for colour, audio, MPEG settings, etc.

**View:** For setting an exact TV window size: 320x240, etc.

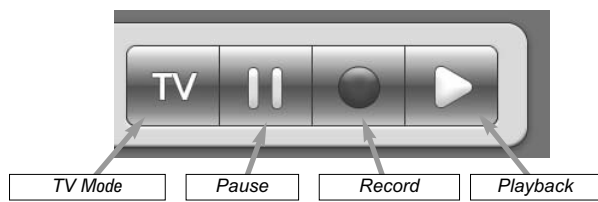
## Configuring an external A/V source in WinTV v6

When using an external audio/video such as a satellite TV receiver, VCR, cable TV set top box, camcorder, game console etc, connect the **S-Video input connector** or **Composite video input connector** for video and the **Audio input (Line-In)** for the sound.

To configure the external A/V source, in the WinTV application click **Menu / Suite Manager** and **Sources**. To add the **S-video** or **Composite** source, highlight the entry and then select the **Video Format** from the drop down list. **NTSC** is the commonly used format in North America. Select **Add** to finish. Then click **Close**.

In WinTV v6, the external A/V source is at the end of the channel list. To select an external A/V source, click the **Up** and **Down channel** buttons to cycle through TV until you get to Composite and S-Video sources.

## Watch and record TV



Clicking on the **Record** button will cause the **Record menu** to roll down and start recording. Click the **Playback** button to open the **Playback menu**. **Note:** Pause is not supported on WinTV-HVR-1950.

## Recording TV with the WinTV-HVR-1950

When recording **ATSC** or **QAM** digital TV, the recording format is the same as the digital TV resolution of the TV program. These recordings will consume a large amount of hard disk space. For example, if the TV program is being transmitted at the highest digital TV resolution, called "1080i", the recording will consume 5.6 Gigabytes of disk space per hour of recording.

When recording **analog cable TV** using **SoftPVR**, the 'DVD' MPEG-2 format will typically consume 2.8 Gbytes per hour.

## Record and Playback

### Recording TV

Click the **Record button** on the WinTV application to open the Record control bar, automatically generate a file name and start recording your TV program.

Clicking the **Record button again** while recording will start an automatic timer. Click the Record button once for 15 minutes, twice

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minute and the second (if you feel this is necessary) to set the second to start the program.

- **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 at WinTV to open WinTV at the requested time and the requested channel.

- **Channel selection:** choose one of the 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.

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 to work. If WinTV is not running, it takes about 10 seconds to start Scheduler and to start the recording of TV.

## The Hauppauge remote control

The WinTV 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 **WinTV** directory.

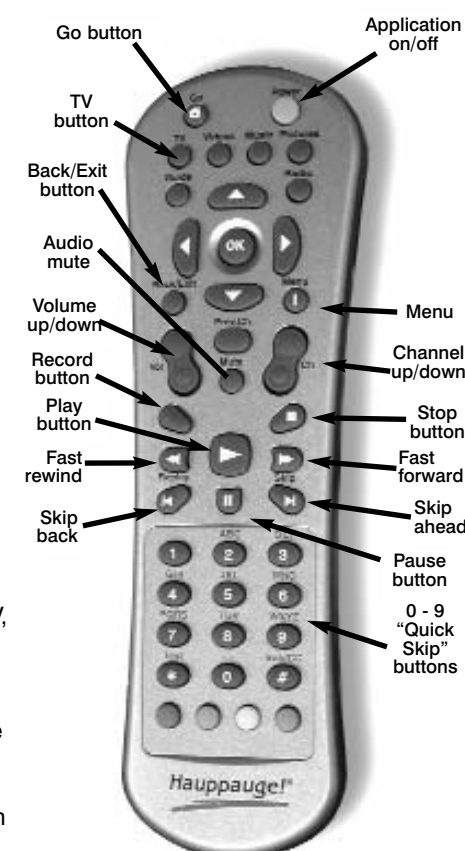
### Some remote control buttons

**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.

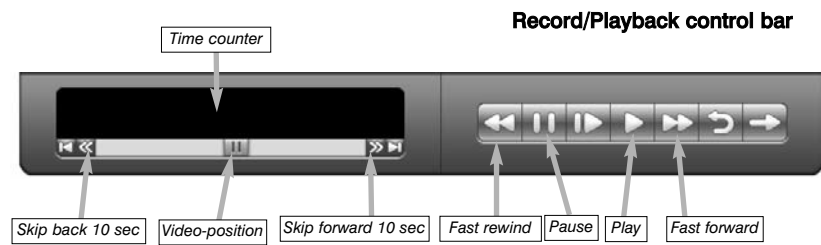
**Pause button:** if watching live TV, will open the record/play menu box and stop the video. When recording, this button will pause the video but WinTV will continue to record. If playing back video, this button will pause the video playback. Click the Pause button to start playing again.

**Stop button (square icon):** stops the recording or playback.



**CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS ON THE BATTERIES.**

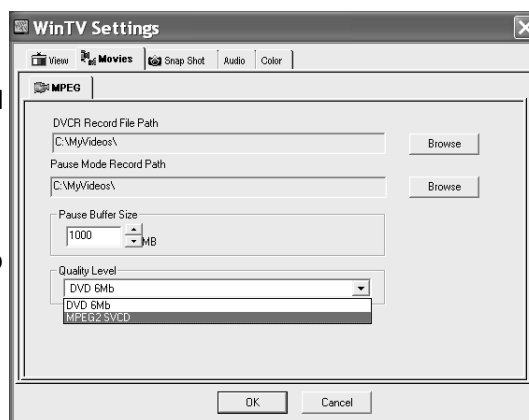
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for 30 minutes and so on.

## Configuring the record formats

When recording analog TV, WinTV uses your PC or laptops processor and **Hauppauge's SoftPVR** to make the recording. The default recording quality is DVD. To configure the directory to store video recordings and to check the analog recording format, click the **Pref button** and then **Movies**.



**Note:** since ATSC and QAM digital recording uses the format the original TV program is broadcast in, there are no other recording format options.

**Time counter** - the time is specified in a **Hour:Minute:Second** format.

**Stop** Clicking the Stop button will stop the video you are recording or playing back.

## Playback TV recordings

Click the **Playback button** on the WinTV application to open the Playback control bar.

**File button** In the File menu you can:

• **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 **Play**.

• **Rename your recorded video file:** To rename a video file, on the video filename click once with your right mouse button, click **Rename** and then type in a new name. Remember: you must keep the MPG extension on the file.

• **Delete recorded video files which you no longer want:** Click your right mouse button on the video file once, go down the menu and click **Delete**.

**Play** 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.

Hit the **0 to 9 keyboard keys** to quickly move to 10%, 20% etc. of your video.

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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.

## Troubleshooting

**Note:** the latest WinTV-HVR-1950 software can be found at [www.hauppauge.com/site/support/support\\_hvr1950.html](http://www.hauppauge.com/site/support/support_hvr1950.html)

## Some notes on system compatibility

Decoding high definition ATSC TV is very CPU intensive. A graphics card with at least 64MBytes of memory and the latest graphics driver from the manufacturer makes the decoding task easier. Typically a 2.2 GHz Pentium 4 processor or equivalent with a graphics card having 64MBytes of memory is required to properly decode ATSC digital TV on your PC. A 1.6GHz AMD Sempro laptop computer tested in the Hauppauge lab used 50% of the CPU for playing ATSC 640i format, and 90% of the CPU when playing ATSC 1080i, the highest definition ATSC format.

In some cases, either a faster processor or more graphics memory might be required. Slow or jerky video and a noisy TV picture indicate system performance problems.

## Jerky video with live ATSC digital TV

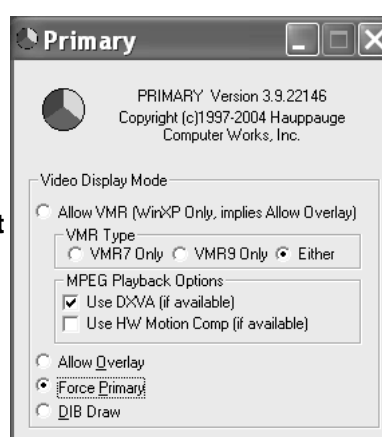
Jerky or distorted video can be caused by two things in your PC or laptop: a slow CPU which cannot decode the ATSC TV signal fast enough, and a graphics system which cannot keep up with the high datarates of ATSC TV.

Many times, improving the performance of the graphics display will fix the jerky video display of ATSC digital TV. Here are some tips on improving graphics performance:

- **Use the latest graphics driver:** graphics drivers are often 'tweaked' to improve performance, especially the built-in graphics on laptops. Check the Microsoft Windows update site to download the latest graphics driver for your computer. For Dell computers, check the Dell website for the latest graphics driver.

- **Use Hauppauge's Primary program to optimize graphics performance:** **Primary.exe** is used to change the display mode of a graphics card for TV watching. This does not affect any other Windows program. **Primary.exe** is found in the Hauppauge WinTV program group. The default mode used by WinTV is **Force Primary**. **Force Primary** uses your processor to move the digital TV image into the graphics memory. It is more CPU intensive but often fixes display problems on some laptops. **Note: Snapshot does not work in 'Force Primary' mode.**

To use hardware graphics acceleration, close WinTV, then run **Primary**. Click **Allow VMR**. Close **Primary** and rerun **WinTV**. The



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**Pause** Clicking the Pause button while Playing will pause your audio/video. Click again to start playing.

**Rewind button** Clicking the Rewind button will play the video file in reverse. Clicking the Rewind button again will continue the playing of the video.

**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.

**Slow motion button** Clicking the Slow Motion button during playback will cause the video to play in slow motion. Clicking the Slow Motion button again will return the video to normal playback speed.

## Schedule TV recordings with 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.

When using an Electronic Program Guide (EPG) such as TitanTV, the WinTV Scheduler makes a conversion so that correct ATSC digital channels will be tuned. For example, if the EPG wants to record digital channel 22.2, you will see the recording listed in WinTV Schedule as recording channel 1222.

After installation, WinTV Scheduler can be found on your Windows desktop. You can also find it in **Start / Program files / Hauppauge WinTV**.

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 WinTV, specifying a TV channel and a length of time to record.

To set up an event for timed watching or recording, run 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

**Allow VMR** setting will allow your graphics system to use hardware acceleration for video decode. **Note: graphics hardware acceleration does not work on all systems.**

If this setting does not help, or if you experience WinTV not responding after a channel change, then your graphics system cannot use hardware graphics acceleration.

In this case, run **Primary**. Click **Force Primary** then rerun WinTV.

## Only some channels are found during ATSC channel scan

If you are only receiving some known TV channels when scanning, it means your TV antenna is not adequate to pick up the channel. You will need either an antenna signal booster (a Radio Shack antenna amplifier will work) or a high gain antenna. Here's a link to an ATSC antenna selector:

<http://www.antennaweb.org/aw/address.aspx>

## Black window when selecting an ATSC channel

A black window when selecting an ATSC channel means that the WinTV-HVR-1950 is not getting a signal. This is most often due to poor reception. See "Only some channels are found during ATSC channel scan" above.

## Uninstalling the WinTV driver and applications

Run the **hwcwclear.exe** from the installation CD. Select **OK** A black screen will briefly appear and once it has disappeared the software will be removed. If you now re-start the computer you will be at Step 4 of the installation.

## Keyboard shortcuts

<b>Sound up</b>	- Page Up	<b>Ctrl+M</b>	- Mute on/off
<b>Sound down</b>	- Page Down	<b>ALT+M</b>	- Re-size TV menu
<b>Plus (+)</b>	- Channel Up	<b>0-9</b>	- Channel number
<b>Minus (-)</b>	- Channel Down	<b>F1</b>	- Launch Help
<b>Ctrl T</b>	- Frame TV	<b>SHIFT+F1</b>	- Online Help
<b>Ctrl P</b>	- Frame Print	<b>Space bar</b>	- Take a Snapshot
<b>Ctrl F</b>	- Still image		

## FCC Statement

Radio Interference Statement:

The WinTV products have 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.

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