

## WinTV-dualHD

### Quick Installation Guide for Windows

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

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

#### 1. Contents of the WinTV-dualHD package

- WinTV-dualHD Dual Tuner ATSC/clearQAM receiver
- USB extension cable
- Portable TV antenna (on some models)
- Credit card size remote control (on some models)
- WinTV Installation CD-ROM including the WinTV v8 application  
Note: Please keep the WinTV v8 serial number in a safe place. It will be required for future installations.



#### 2. What is ATSC and QAM digital TV, and how does the WinTV-dualHD 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.

**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. Please check with your local cable TV operator on the availability of clear QAM TV channels.

WinTV-dualHD has two built-in tuners for 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 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 supplied portable antenna is designed 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 TV reception, a roof top 'High gain' antenna is recommended. In the U.S., a good ATSC digital antenna selector can be found at [www.antennaweb.org](http://www.antennaweb.org)

#### 3. Installing the WinTV-dualHD device

Locate a free USB 2.0 port (normally located at the side or back on the laptop or desktop). Plug the WinTV-dualHD into the USB 2.0 port. The **USB extension cable** can be used to position the WinTV-dualHD away from your USB slot.

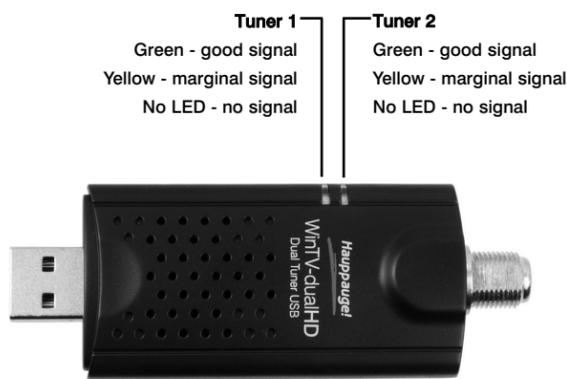
**Note:** we do not recommend connecting via a USB Hub.

Plug an antenna for ATSC digital TV reception, or cable TV for clearQAM digital TV reception, into the TV connector on WinTV-dualHD.

If you are using ATSC HD TV, **it is recommended using a roof top antenna during the first time installation.** This will provide better signal quality than a portable antenna.

#### Signal Strength Indicator LEDs

The **Signal Strength LEDs** are green when you are tuned to a strong digital TV signal, yellow when tuned to a moderate TV signal and off when there is no (or a weak) TV signal. Each tuner inside the WinTV-dualHD has an LED showing the signal strength of the TV channels its tuned to.



#### 4. Installing the WinTV-dualHD software

**Note:** the latest WinTV-dualHD software can be found at [www.hauppauge.com/site/support/support\\_dualhd.html](http://www.hauppauge.com/site/support/support_dualhd.html)

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

Install your WinTV products (step 3). Turn on your PC, and boot into Windows.

**For Windows 10, 8 or 7:** You will see an **AutoPlay** message. Click **Run Setup.exe**

**For Windows XP installations:** After you install your WinTV device and boot Windows, a **'Found New Hardware'** wizard will appear.

**Please cancel it and allow Windows to load fully before proceeding.** With some WinTV products, you might see this message two or three times. Please click **'Cancel'** each time you see the **New Hardware Wizard**.

**For all versions of Windows:** The **"Hauppauge WinTV Installation CD-ROM"** window will appear on the screen.

**Note:** if the CD does not autorun, navigate to the CD and run the 'Setup.exe' file.

Select your language, then click the button labeled: **Step 1: Install Drivers.** A blue screen will open and begin installing the drivers for your WinTV.

Once the drivers have installed, click on the **Finish** bar to exit.

#### Install the WinTV applications



Click the button labeled **Step 2: Install WinTV**

Click **Next**.

The setup application will then open and begin automatically installing the WinTV application components.

The main applications installed are the WinTV v8 application for TV watching and recording. Once complete, click **OK** then **Exit**.



#### 5. Running WinTV v8 for the first time

To run the WinTV v8 application, double click on the **WinTV icon** on your Windows desktop.

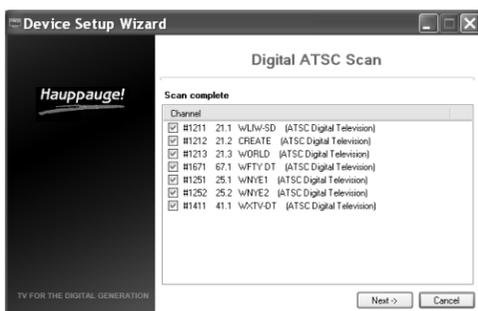
When you run WinTV for the first time, the WinTV **Device Setup Wizard** appears. Select the TV source that you are using.



#### If your TV source is ATSC digital over-the-air TV

Select **Digital ATSC** and click **Next**. In the **ATSC Setup** menu, click **Next**. You will see the Digital ATSC Scan scanning for digital over-the-air channels.

The digital TV scanning process will



scan from channels 2 to 51. As TV channels are found, they will appear in the Channel box.

When complete, click **Next / Next** and **OK**.

**Note:** if you do not receive any ATSC digital TV channels, an **antenna signal booster** might be needed. After adding a signal booster, see below for instructions on rescanning and the **Troubleshooting** section for information on choosing an antenna.

#### If your TV source is Clear QAM Digital Cable TV

Clear QAM digital cable TV channels are those TV channels broadcast on a digital cable network which are unencrypted ('free to view'). If you are using cable TV with clear QAM programs, chose **Digital QAM** and **Next**.

Encrypted channels are automatically not selected. The resulting channels in the list might be both standard and high definition channels.

#### Rescanning TV channels

If you want to rescan for TV channels, click the **Configuration menu (Gear button)** in the lower left corner of WinTV v8).

Then click on the **Devices tab**. Chose your WinTV device by clicking on it, then click **Tuner setup**. Chose the TV format you want to scan, then click **Next**. Click **Next** and a new scan will be started. When the scan is complete, click **Next / Next** and **OK**.

#### 6. Using the WinTV v8 application

Once the WinTV v8 application is open, click the **Watch TV button** to watch TV.

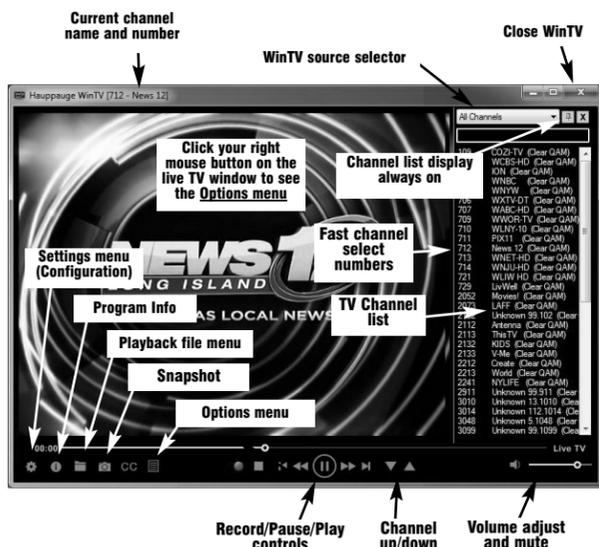
To see the **TV Channel list**, click your **right mouse button** in the TV window to display the **Options menu**. Select **Find Channel**. You will see the channel list.

To display the channel list all the time, while the channel list is displayed, click the **Channel list display always on button**.

#### Options menu

The **Options menu** is the main menu where you can select channels, turn on close captions, open the TV Scheduler, show the TV Guide and many other of the most important TV control functions.

To bring up the **Options Menu**, click your **right mouse button once in the TV window**.



To see the **channel list**, click on **Find channel**. You will see the list of channels which have been scanned. To show the Channel menu as part of the TV window, click the **Channel list always on** icon at the top of the channel list.



To turn on **Close captions**, click on **Show Captions**.

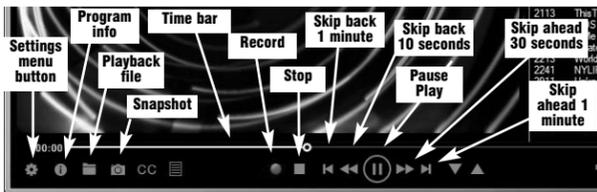
To manually schedule a TV recording, or to see which programs have been scheduled, click on **Scheduler**.

To turn on the **Always on Top** mode, click on **Stay on Top**.

#### Watch, Pause and Record TV

WinTV v8 is always recording video to your PC's hard drive while TV is being displayed. In this way, you can immediately skip back and replay the TV program you are watching.

Clicking on the **Pause button** will cause the video to pause,



while clicking the **Record button** will cause the current TV program to be recorded to hard disk.

### Recording your TV shows

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

- **Click the Record button.** The recorded file name will popup on the video for a few seconds as the recording starts.
- When you are finished recording, click the **Stop button.**
- Click the **Playback file button** and select the last file recorded to play the video you just recorded
- To play a video you recorded earlier, click the **Playback File button** and then move your mouse and click once on the video you want to play. Click Open and the file will start playing.

The recorded video file is saved in the directory set in **Recordings directory.** The default directory is **MyVideos.** To change this directory, click the **Settings button** and then the **Folders tab.** Every time you record a file, a new file is automatically created. The file will be formatted as: (ChannelNumber)\_(ChannelName)YearMonthDay\_Time.

For digital TV programs, the quality level recorded is the same as it is transmitted by the TV station. For example, if the TV station is transmitting a high-definition program, WinTV will record the program in high-definition.

Close captions, parental control information and SAP audio is recorded with digital TV programs.

### If you want to pause a TV show you are watching:

- Click the **Pause button.** Your TV video will stop and the Time counter will start counting.
- To start the video from where you paused, click the **Play 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 1 minute, click the **Skip back 1 minute button.** If your video was paused, click the **Play button.**

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.

### Picture in Picture

To set the Picture in Picture (PIP), go to the **Options menu** (click your right mouse button once in the TV window) and click **Picture in Picture.**

*Note: if you cannot see the Picture in Picture option in the Options menu, go the **Settings -> Advanced Options** and make sure **Enable Picture in Picture** is checked.*

*Note: If you record a file using the TV scheduler, the PIP window will tune to the channel being recorded.*

To select the channel, click **Find Channel**

To open a file for playback in the PIP, click **Open File** and browse for your file

To set the position of the Picture in Picture, select the position Bottom Right, etc.

To set the size, select Small, Medium or Large

To close the PIP window, click **Stop**

### Image capture

To capture still images from video, click the **Snapshot** button.

To configure the formats for still image capture, click the **Settings menu** button, then click on the **Capture folder.** You will see the settings for image capture under **Snapshots.** You can chose between BMP and JPEG formats. The name of the files will be:

**capture\_'date'\_'time'.jpg** or **capture\_'date'\_'time'.bmp**

### TV Scheduler

WinTV v8's built-in TV Scheduler allows you to schedule the recording of TV shows. Once a record event is set, WinTV v8 can be closed and will "wake up" at the desired time and tuned to the desired channel.

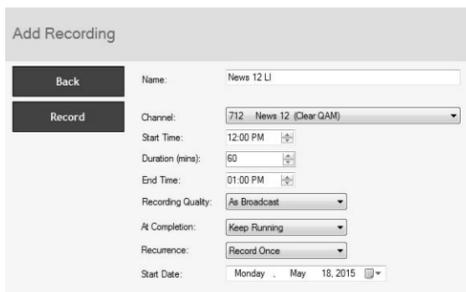
*Note: your PC needs to be turned on for scheduled recording to work.*

When a scheduled record event takes place, the WinTV v8 application records "in background" so that you can continue to watch your live TV program, even as the recording progresses.

The TV Scheduler can be found in the **WinTV v8 Options menu.** **Right click** your mouse button in the TV window to see the Options menu. Click **Scheduler.**

To set up an event for timed watching or recording, click the **Add button.**

The items



that need to be set for each event are:

- **Name:** you can add a name to the recording. If you do not enter a name, the name will be in the channel/date format.
- **Channel:** chose one of your scanned channels.
- **Start time:** set to the desired start time. Click on the hour to set the hour, the minute to set the minute. Note: It takes about 15 seconds to launch the WinTV and start recording.
- **Duration:** number of minutes in the recorded program.
- **Recurrence:** one time, daily, weekly. Note: If you set for Record Weekly, you must also specify the Day of the Week for the recording.
- **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 WinTV to bring up the WinTV at the requested time and on the requested channel.

Once these are set, click **OK.** You can add more recordings, clicking OK 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, but your PC needs to be turned on. If WinTV is not running, it takes about 15 seconds to start WinTV and to start the recording of TV.

### Troubleshooting

*Note: the latest WinTV-dualHD software can be found at [http://www.hauppauge.com/site/support/support\\_dualhd.html](http://www.hauppauge.com/site/support/support_dualhd.html)*

### Some notes on system compatibility

Decoding high definition ATSC and clear QAM HD 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 or clear QAM 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:

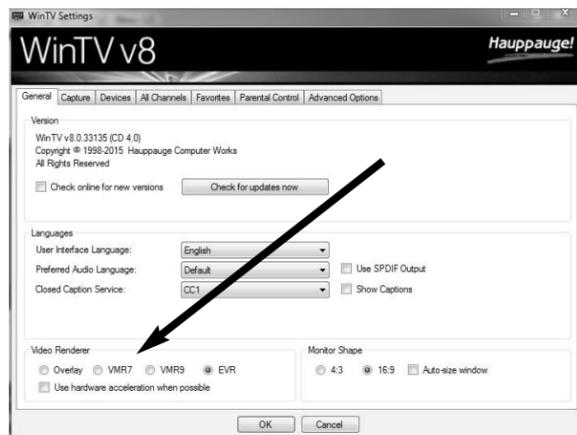
- **Use the latest graphics driver:** graphics drivers are often 'tweaked' to improve performance, especially the built-in graphics on laptops. Check the Microsoft Windows update site to download the latest graphics driver for your computer. For Dell computers, check the Dell website for the latest graphics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

- **Use WinTV v8 Video Renderer settings to optimize graphics performance:** The Video Renderer is found in the General tab of WinTV v8, and is used to change the display mode of a graphics card for TV watching. This setting does not affect any other Windows program.

The default mode is **EVR.** The other modes are **VMR9, VMR7** and **Overlay.** Each mode uses a different process to render video. Try each mode and use the one which gives you the best results.

**To use hardware graphics acceleration,** put a check in the tick box Use hardware acceleration when possible. This 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 go back to settings and uncheck "use hardware acceleration" and 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 TV tuner is not getting a signal. This is most often due to poor over-the-air TV reception. See "Only some channels are found during ATSC channel scan" above.

### Uninstalling the WinTV driver and applications

Run the **hcwclear.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>Ctrl A</b>	Aspect ratio	<b>Alt F</b>	Open File menu for playback
<b>Ctrl D</b>	Display the video and audio format of the TV program	<b>Alt M</b>	Open the Task Menu
<b>Ctrl F</b>	Freeze the video	<b>Alt P</b>	Previous channel
<b>Ctrl Z</b>	Open TV Scheduler	<b>Ctrl Q</b>	Pause
<b>Ctrl O</b>	View program details (digital TV program, where provided in the broadcast)	<b>Ctrl P</b>	Play
		<b>Alt R</b>	Record
		<b>Alt S</b>	Stop
		<b>Alt T</b>	Start TV
<b>Ctrl S</b>	Display subtitles	<b>Ctrl C</b>	Catch up
<b>Ctrl W</b>	Full screen toggle	<b>Ctrl &gt;</b>	Skip ahead
		<b>Ctrl &lt;</b>	Skip back

### 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.

FCC ID: H90WINTV

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

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.