Colossus

A High Definition H.26 Video Recorder for Windows

Quick Installation Guide

Included with Colossus:

• **Colossus** H.264 high definition video recorder, PCI Express
• **Component video** cable set, 1 meter
• **A/V adapter cables,** two sets
• **Hauppauge remote control** for use with the WinTV v7 application
• **IR Blaster transmitter cable** to control the channel changing on your cable TV or satellite set top box
• **Colossus installation CD**, with drivers for Windows plus WinTV v7 and Arcsoft ShowBiz

Overview

The Hauppauge **Colossus** records video from a video game console or cable TV or satellite set top box. The recordings are made onto a computer's hard disk in a compressed H.264 format. Colossus uses **Component video** (also called YPrPb), **HDMI** or **composite video**, and will record at resolutions from standard definition (480i) up to high definition (1080i), at datarates from 1Mbit/sec up to 20Mbits/sec.

*N*ote: if you are connecting Colossus to a video game console such as an XBox360 or PS3, make sure the Component video output of the game console is set to 1080i. Please see the Hauppauge Colossus support page for instructions on connecting the Xbox360 or PS3 to Colossus:
http://www.hauppauge.com/site/support/support_colossus.html

Video is supplied to Colossus through Component or HDMI at up to 1080i, or composite video. **Please note:** HDMI from a cable TV or satellite set top box, plus the Playstation3, is protected with HDCP and cannot be recorded with Colossus. For these sources, you will need to use Component video.

Audio can be supplied to the Colossus from a set of stereo audio cables or via an optical SPDIF digital audio input. The optical audio input to the Colossus can be in either a 2 channel stereo audio format or a 2 or 5.1 channel AC-3 format.

The recording format used by Colossus is H.264 video with digital audio. Colossus recordings can be played back to the PC screen or can be converted "on the fly" to a Blu-ray format AVCHD file for burning onto a DVD disk.

In WinTV v7, all recordings are made in a .TS file for format using H.264.

In Arcsoft ShowBiz, there are three types of record formats which can be selected:

.TS: the native H.264 format with 2 or 5.1 channel audio. You create this format when you click *AVCHD* in **Arcsoft Capture**.

.M2TS: this is an H.264 format with either 2 or 5.1 channel audio which can be played on a Sony Playstation3. You create this format when you click on *Playstation3* in **Arcsoft Capture**.
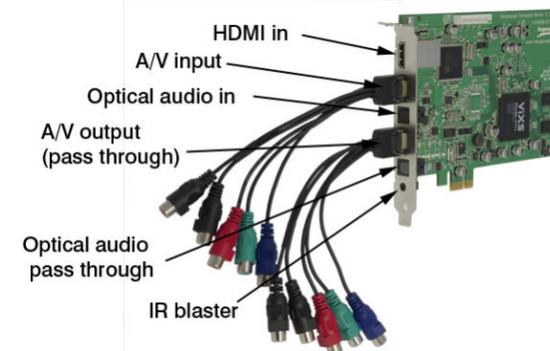
.MP4: this is an H.264 format with two channel audio only which can be played on an XBox360. You create this format when you click on *XBox 360* in **Arcsoft Capture**.

Colossus comes bundled with the **Hauppauge WinTV v7** application and **Arcsoft's ShowBiz** application. WinTV v7 is used to record video from a cable TV or satellite set top box. **ShowBiz** is used to record video, play back the recorded videos to your PC screen, plus can burn your video recordings into a AVCHD format using conventional DVD disks for playback on a Blu-ray DVD player.

Installing Colossus

Step 1. Install the Colossus board in your PC

Turn the power off on your PC. Install Colossus into a **PCI Express X1 slot**. Turn the power on to your PC.

Labels: HDMI in / A/V input / Optical audio in / A/V output (pass through) / Optical audio pass through / IR blaster

Step 2: Connect the Colossus cables.

Component video input (YCrCb or YPrPb)

Plug the **A/V adapter cable** into **A/V input** on the back of Colossus. Then connect the **Component video cable** from your game console or cable TV or satellite set top box into the **A/V cable set**.

HDMI video input

You can connect the HDMI output of some game consoles to Colossus, The HDMI video source needs to be un-encrypted. If you try to view or record encrypted video sources, you will get a black screen.

Component Video Output (pass through video)

If you are using **Component video input**, you can preview your video recordings on a TV set.

- Plug the **A/V adapter cable** into the **A/V output (pass through)**
- Connect the component video output from the Colossus to the Component video input on your TV set.

There is no delay in the Component video pass through, so you can watch game play in real time.

*N*ote: To enable Component video pass through, your PC needs to be powered on.

Connecting to a cable TV or satellite set top box

There are two ways to connect to the Colossus from your cable TV or satellite TV set top box:

a.) **you can connect the Component video (YCrCb or YPrPb) output** from your set top box to the **A/V adapter cable** located on the rear of the Colossus. The Component video colors are normally **Red/Green/Blue**.
Note: Component video is limited to the 1080i. You may need to set the Video Output of your cable TV or satellite box to 1080i.

b.) **you can connect the Composite video output** of your set top box (normally the yellow RCA connector on a set top box) to the **Blue connector** on the A/V cable set.

Audio connections

Audio from your game console or set top box is connected either to the **Optical audio input connector** or to the **RCA audio input** on the A/V cable set.

Step 3: Install the Colossus Windows driver and applications

Turn on your PC, and boot into Windows.

If a '**Found New Hardware**' wizard appears, please cancel it. Allow windows to load before proceeding.

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

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

"**Hauppauge WinTV Installation CD-ROM**" window will appear on the screen.

Install the Colossus driver

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 Colossus applications

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

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

The WinTV v7 application, Arcsoft ShowBiz software application, and IR Blaster application will be installed.

Once complete, click *OK* then *Exit*.

*N*ote: the latest driver updates are available at: www.hauppauge.com in the Support section.

Step 4: Install the IR Blaster cable
(optional - for use with a cable TV or satellite receiver box)

Plug in the IR Blaster transmitter cable

Plug the jack at the end of the IR Blaster cable into the IR receiver jack on the Colossus.

Install the IR transmitter (blaster) at your set top box

Attach the end of the IR transmitter over the remote sensor on the set top box to be controlled. **Placement of the IR transmitter is important!** The IR transmitter only works over a 1 inch distance, so you need to make sure it is placed over the remote sensor in your set top box. Some set top boxes have the position of the remote receiver indicated on the plastic front of the set top box. With others, you might need to look carefully at the set top box for what looks like a round or square area underneath the plastic front panel. There is double sided tape on the back of the IR transmitter to hold it in place over the remote sensor in your set top box.

You will configure the IR Blaster for your set top box in the section entitled **Configuring the IR Blaster**.

Running WinTV v7 for the first time

To run the WinTV v7 application for watching and recording videos and playing them back on your PC, double click on the WinTV icon on your Windows desk top. When you run WinTV for the first time, the **WinTV Device Setup Wizard** appears.

Audio/video source setup

Video and audio is brought into the WinTV v7 application from an external audio/video source such as a game console or cable TV or satellite set top box.

In the **Device Setup Wizard,** select "**Analog TV via a Set top box**" and click *Next.*

In **WinTV Colossus STB Setup**, select the **Country**, **Video Input source** and **Audio Input source**.

If you are recording from a game console, select **External inputs** and click *Next*.

If you are recording from a cable TV or satellite set top box, chose either *Manual Entry* or *Internet Lookup*. Internet looking is only available in the U.S. Then click *Next*.

If you are recording from a game console, in the **External Input Setup** select the video and audio input port you are using and click *Next*.

If you are recording from a cable or satellite set top box, add the TV channels you would like to have the IR blaster tune to. For each channel, add the channel number, give it a description, and click *Add*. When you are finished with your channels, click *Next*.

You can add or modify channels at any time by clicking the **Settings button** and clicking the *Devices tab* and then clicking *Tuner setup*. You will see the **STB Setup** menu again.

Using the WinTV v7 application

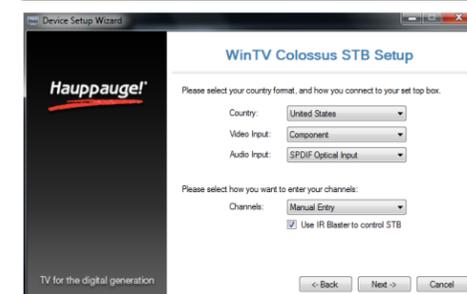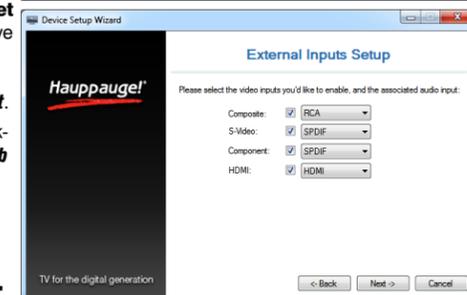Click the **Watch TV** button to see video.

Options menu

The Options menu is the main menu where you can select channels, open the TV Scheduler and many other of the most important TV control functions.

To display the Options Menu, click your *right mouse button* once in the video window.

T**o 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 video window, click the *Channel list always on* icon at the top of the channel list.

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*.
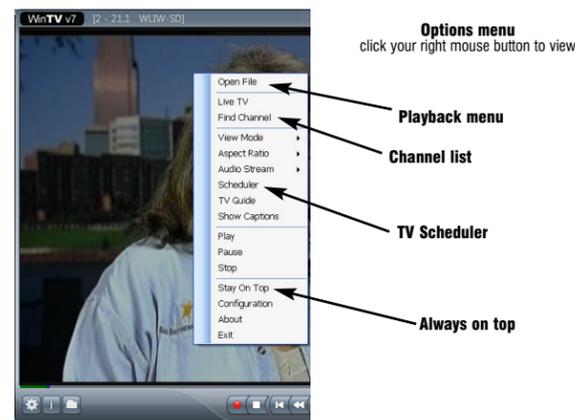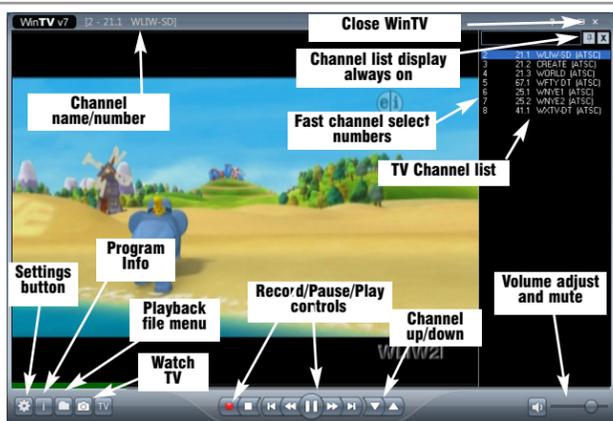
IR blaster in WinTV v7

If you would like to use the Hauppauge IR blaster to change the channels on your cable TV or satellite set top box, see the section entitled "**Configuring the IR blaster**".

Watch, Pause and Record videos in WinTV v7

WinTV v7 is always recording video to your PC's hard drive while video 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 a video with WinTV v7

- Channel name/number
- Channel list display always on
- Fast channel select numbers
- TV Channel list
- Close WinTV
- Program Info
- Settings button
- Playback file menu
- Record/Pause/Play controls
- Channel up/down
- Volume adjust and mute
- Watch TV

- Options menu / click your right mouse button to view
- Playback menu
- Channel list
- TV Scheduler
- Always on top

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**.

If you want to record a video you are watching:

- Click the *Record button*. The recorded file name will popup 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.

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 10 seconds, click the *rewind 10 seconds 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.
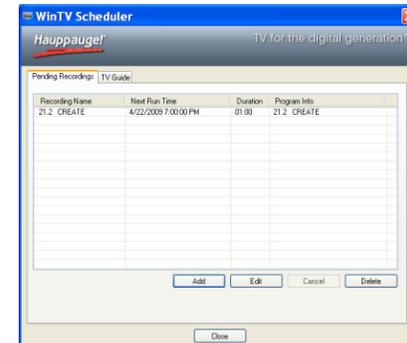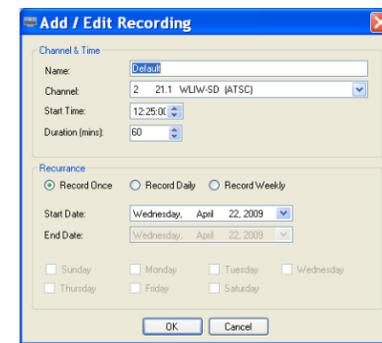
WinTV Scheduler

WinTV v7's built-in Scheduler allows you to schedule the recording of TV shows. Once a record event is set, WinTV v7 can be closed and will "wake up" at the desired time and tuned to the desired channel.

The TV Scheduler can be found in the **WinTV v7 Options menu**. *Right click your mouse button* in the video 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 channels. The IR blaster, if configured, will change the channel on your set top box at the chosen time

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- **Start time:** set to the desired start time.
- **Duration:** number of minutes in the recorded program.
- **Recurrance:** 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.
- **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 Schedular to work. If WinTV is not running, it takes about 15 seconds to start WinTV and to start recording.

Create a DVD video with ArcSoft Showbiz

With ArcSoft ShowBiz you can digitize video from your analogue video sources, and burn it onto a video DVD. ShowBiz also allows you to upload your video to your YouTube account.

Create a Video DVD

After installation you will find the "ArcSoft ShowBiz" icon on your desktop. Click on this Icon to run the application.

The program is divided into three main steps **Capture**, **Edit** and **Produce**.

Capture

Switch your video source on. In ArcSoft ShowBiz click on "*Capture*". The capture module is opened.

In "**Video Source:**" Colossus should now be selected.

In the "**Video Input:**" drop down menu, select "**Component**" or "**Composite Video**", depending upon which source is connected to your set top box or game console.

You should now see live video from your video source in the preview window, and also hear audio.
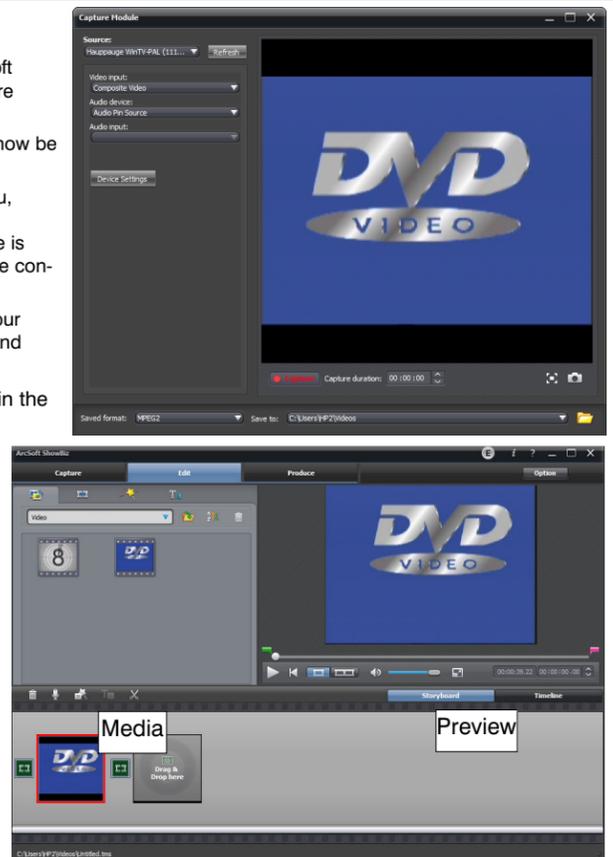
You can enter a recording duration in the "**Duration:**" field. Click the "*Record*" button to start recording.

Edit

In the Edit step you define which recordings will be on the final Video DVD. Drag the desired videos from the "**Media**" area into the "**Storyboard**" at the bottom of the window. You can also trim your videos, define transitions, and add text and video effects.

Produce

After editing, click on "**Produce**" to generate the final video file, burn a Video DVD or upload your video to your YouTube account

- Media
- Preview
- Storyboard

Configuring the IR Blaster

The IR Blaster lets Colossus change the channel on a satellite or cable TV set top box by transmitting 'channel change' commands to the box via an Infra Red (IR) transmitter. The IR Blaster consists of two components:

1. **IR Blaster cable.** This cable has an IR cable jack and an IR transmitter. The IR cable jack plugs into the back of Colossus, and the IR transmitter needs to be positioned over the IR receiver on your set top box using the self stick tape supplied on the front of the transmitter.
2. **IR Blaster Config program (BlasterCfg.EXE)** for configuring the codes for the IR transmitter.

During the installation of the WinTV software from the Installation CD-ROM, the Hauppauge IR Blaster application will be automatically installed. You will be asked during the IR software installation to acknowledge a software license.

Running the IR Blaster configuration program

The **IR Blaster Configuration program** can be found in the **Program Groups** / **Hauppauge WinTV**. Run **BlasterCfg.EXE**

Select the **Device (cable or satellite)**, then **Vendor/Model** of your cable TV or satellite set top box.

The **CodeSet** will contain a list of codes which IR Blaster knows about the selected Vendor. There might be as many as ten codes for the Vendor chosen.

To determine the correct CodeSet for your set top box:

- On Blaster Config, click the *Power On/Off* button. You should see the IR transmitter blink after each click of the Power On/Off button.
- **If your set top box turns on or off, then this code is the correct one for your set top box.**
- If not, click **Test Next**. Continue to click **Test Next** until your set top box turns on or off, at which time you have found the correct code.
- Close the **Blaster Configuration** program to save the configuration.

If you cannot find a code which works with your set top box, Colossus has a **Scan function** which allows it to scan for all known set top box remote control codes. To scan:

- First, make sure the **IR transmitter is positioned over the remote sensor** on your set top box. The IR transmitter has a very short transmission distance and needs to be positioned carefully over the remote sensor on your set top box.
- Next, click the *Test All* button. This button will go through all of the codes in our database of set top

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boxes (over 200 devices at present). After clicking Test All, watch your set top box. If it goes on or off, immediately click *Stop Test*. You have found the correct code for your set top box.

If your set top box does not turn on or off even after going through all the codes, then either the IR transmitter is not positioned correctly or your set top box is not in our database (see "**Learning" a new set top box**).

Once you have determined the Code, click *Next* to go to the IR Channel Test menu. You can click the *Send button* to send a number sequence to your set top box. If your set top box is on, you should see 1 2 3 appear on the channel indicator of your set top box.

"Learning" a new set top box

If you have a set top box that is not part of the Hauppauge IR Blaster preset codes and the Scan function does not work, you can add a new set top box by using the Learn function.

To access the learn function, click on *Advanced config*, and then click *Learn*.

To learn the new keys:

- **hold the remote control from your set top box as close to the IR receiver and learn sensor as possible.**
- in the **Blaster Configuration program**, click the button you would like to learn (for example: 1)
- then **depress and hold** the corresponding key on **your set top box remote control**. You will be instructed in the message box when to release the key on your remote control.
- Do this for the keys **0** to **9** plus **On** and **Enter**

You should receive a **LearnKey(key#) Succeeded** message. Then move on to the next key.

If you receive a **LearnKey(key#) Failed** error, this means that the key was either held down too long, or not long enough, or that the remote was not held close enough to the IR sensor. Try again.

Once you are finished with the numbers 0 to 9 and On and Enter, you can test the learning by clicking the **Send button** in the Blaster Configuration program. It will send the numbers 123 to your set top box. Your set top box should now be on channel 123.

Close the Blaster Configuration program to save the configuration.